KONICA MINOLTA

LASER IMAGER

DRYPRO MODEL 832

CODE NO.0921(UL)
0922(CE)

Service Manual

CE

Manufacturer:
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Introduction

DRYPRO 832 is a totally dry processing laser imager. This product is easy to use and environmentally friendly while maintaining sophisticated features and high image quality.

This manual provides repair precautions and a series of steps for service engineers who repair this machine (or system including this machine).

This manual should be kept in a place handy for quick reference.

Cautions

1. Unauthorized reproduction of any part of this manual is prohibited.
2. The contents of this manual are subject to change without notice.
3. Any discrepancies, errors or omissions noted should be communicated to the manufacturer.
4. Notwithstanding item 3. above, the manufacturer accepts no responsibility whatsoever for any loss or decrease in profits arising from usage of the product.

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How to Read This Manual

Structure of This Manual

This manual provides prior representations for safety and the method for repairing this machine in eighteen chapters below:

Chapter 1: Safety Precautions and Warnings

This chapter provides basic precautions which should be followed when repairing or using DRYPRO 832. Thoroughly read this chapter before starting work and instruct users to familiarize with these precautions.

Chapter 2: Before Starting Repair Work

This chapter provides basic knowledge about the product before starting repair work on DRYPRO 832.

Chapter 3: Basic Operations

This chapter describes basic operations when repairing DRYPRO 832, including the procedures for installing or removing a supply tray and exterior cover, opening or closing covers, and wearing a grounding strap.

Chapter 4: Replacing Supply Unit Loading Parts

This chapter describes how to replace loading parts in the supply unit when they fail and how to adjust after replacing the loading parts.

Chapter 5: Replacing Tray Unit Loading Parts

This chapter describes how to replace loading parts in the tray unit when they fail and how to adjust after replacing the loading parts.

Chapter 6: Replacing Lispl-832 (Optional) Loading Parts

This chapter describes how to replace loading parts in Lispl-832 (optional) when they fail and how to adjust after replacing the loading parts.

Chapter 7: Replacing Sub Scan Unit Loading Parts

This chapter describes how to replace loading parts in the sub scan unit when they fail and how to adjust after replacing the loading parts.

Chapter 8: Replacing Loading Parts in Exposure Unit

This chapter describes how to replace loading parts in the exposure unit when they fail and how to adjust after replacing the loading parts.

Chapter 9: Replacing Loading Parts in Heat Process Unit

This chapter describes how to replace loading parts in the heat process unit when they fail and how to adjust after replacing the loading parts.

Chapter 10: Replacing Ejection Unit

This chapter describes how to replace loading parts in the ejection unit when they fail and how to adjust after replacing the loading parts.

Chapter 11: Replacing Loading Parts in Main Unit

This chapter describes how to replace loading parts in the main unit when they fail and how to adjust after replacing the loading parts.

Chapter 12: Replacing Loading Parts in the Exterior of Main Unit

This chapter describes how to replace loading parts in the exterior section of the main unit when they fail and how to adjust after replacing the loading parts.

Chapter 13: Replacing and Cleaning Loading Parts on a Regular Basis

This chapter describes the procedures for replacing and cleaning loading parts on a regular basis.

Chapter 14: Setting and Adjustment

This chapter describes various setting and adjustment procedures for DRYPRO 832.

Chapter 15: DRYPRO 832 Utility Tool

This chapter describes each item of DRYPRO 832 Utility Tool.

Chapter 16: MainteTool

This chapter describes various maintenance using the service PC.

Chapter 17: Troubleshooting

This chapter provides solutions for errors that may occur.

Chapter 18: Technical Information

This chapter describes the technical information on block diagrams, wiring diagrams, board drawings, and function timing charts for the DRYPRO 832.

Alert Symbol Marks

Alert symbols alert the person(s) who installs this machine (or system including this machine) and other people to matters and/or operation potentially hazardous to them when installing it.

Read these messages and follow instructions carefully.

Be sure to read all instructions and safety standards and become thoroughly familiar with the product before installing this machine.

Description of Safety Signage

- Symbols indicating that care (including danger and warnings) should be taken:

General Precautions	Danger of Fire	Danger of Electric Shocks	Danger of High Temperature	Danger of Rotation

- Prohibition signs (indicating prohibited acts):

Prohibited	Do not touch	Do not disassemble	Do not touch with a wet hand	Do not expose to moisture	No mobile phones	Star-burst connection prohibited

- Symbols indicating compulsory or required acts:

Ground	Remove plug from electrical outlet

Signal Words

Signal words designate a degree or level of hazard seriousness inherent in products.

Signal words include the following three types, which are used according to risk of damage caused by danger and the severity of damage:

DANGER

Used to indicate an immediate and imminent danger that, if not avoided, is likely to cause death or serious injury, serious property damage such as total loss of equipment and fire.

WARNING

Used to indicate a consequential (potential) danger that, if not avoided, is likely to cause death or serious injury, serious property damage such as total loss of equipment and fire.

CAUTION

Used to indicate hazards that, if not avoided, could result in minor or moderate injury or cause partial loss of equipment and computer data loss.

		Risk of damage	
		High	Low
Bodily injury (or property damage)	Death or serious injury (serious damage)	DANGER	WARNING
	Minor or moderate injury (minor damage)	WARNING or CAUTION	CAUTION
Property damage only		CAUTION	

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Chapter 1 Safety Precautions and Warnings

This chapter presents safety precautions you need to know prior to starting repair work on the product.

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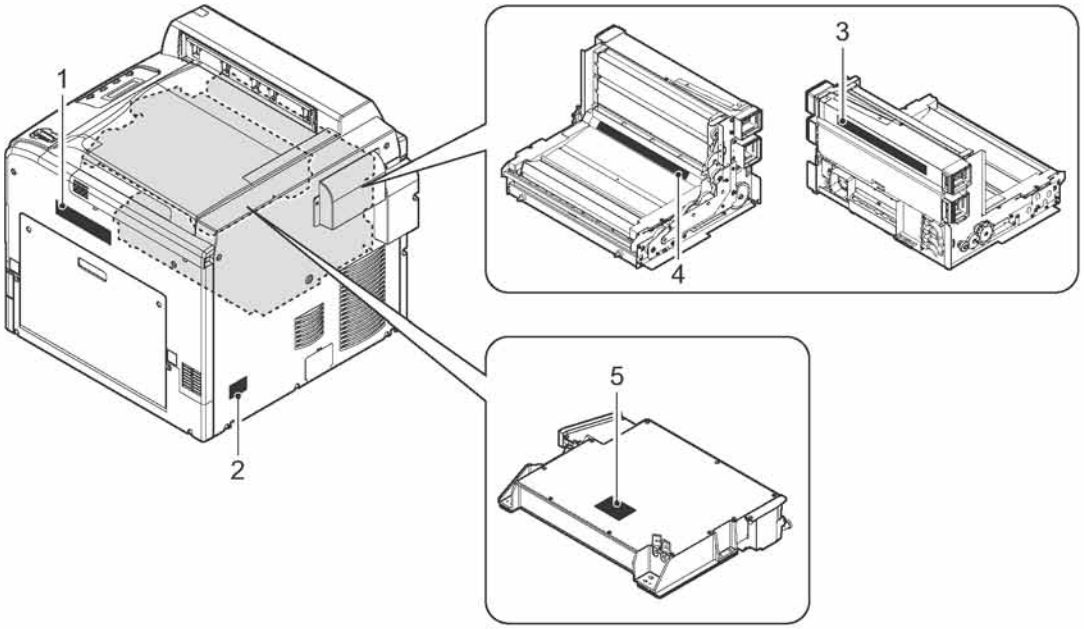
1.1 Warning Labels

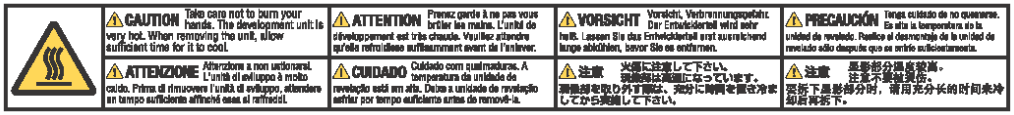
Various warning labels are attached to DRYPRO 832 on locations shown below:

When performing installation or maintenance work such as repairs, understand the meaning of warning labels and be very careful in handling locations where warning labels are affixed to.

> **Caution** To avoid an accident during servicing work, do not remove or contaminate the label attached to. If the information on the label is unreadable as it came unstuck or was contaminated, replace the label with a new one.

1.1.1 Positions and Types of Warning Labels



No.	Precautions/Warning Labels
1	**Laser Warning**
2	**Class 1 Laser Product**
3	**Caution Hot Label** 
4	**Caution Hot (130 ℃) Label**

No.	Precautions/Warning Labels
5	**Laser Power Label**

1.2 Safety Precautions

Read all safety precautions thoroughly before using the product.

Be sure to observe the safety precautions described in this section.

1.2.1 Precautions Following Requirements of Laws and Regulations

⚠ CAUTION

Caution as to laser control

To prevent danger, make sure that only service engineers who received proper formal training will remove the exterior cover or touch the inside of the equipment.

DRYPRO 832 Laser Unit Specifications

Item	Specifications
Wavelength	784nm
Maximum output	260mW

(1) EMC Statement - DRYPRO 832 has been tested and found to comply with the limits for medical devices to the IEC 60601-1-2: 2001, Medical Device Directive 93/42/EEC or the Electromagnetic Compatibility Directive 89/336/EEC (use applicable directive). These limits are designed to provide reasonable protection against harmful interference in a typical medical installation. DRYPRO 832 generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If DRYPRO 832 does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving device.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.

(2) EMC Statement - Take precautions against DRYPRO MODEL 832 especially regarding EMC. Install and put into service according to the EMC information provided in the manual.

(3) EMC Statement - Do not use mobile phones or pocket pagers in the vicinity of the DRYPRO MODEL 832. Use of mobile phones or pocket pagers near the DRYPRO MODEL 832 can cause errors in operation due to electromagnetic wave interference : such devices should be turned off in the vicinity of the unit.

(4) EMC Statement - Cable List
- AC Power Cable (3m)

(5) EMC Statement - The use of accessories, transducers and cables other than those specified, with the exception of transducers and cables sold by KONICA MINOLTA MEDICAL & GLAPHIC, INC. as for internal components, may result in increased emissions or decreased immunity of DRYPRO 832.

(6) EMC Statement - Do not use adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, confirm normal operation in the configuration in which DRYPRO 832 will be used.

(7) EMC Statement

Guidance and manufacturer's declaration - electromagnetic emissions		
The DRYPRO 832 is intended for use in the electromagnetic environment specified below. The customer or the user of the DRYPRO 832 should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The DRYPRO 832 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The DRYPRO 832 is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/flic IEC 61000-3-3	Applicable	

(8) EMC Statement

Guidance and manufacturer's declaration - electromagnetic immunity			
The DRYPRO 832 is intended for use in the electromagnetic environment specified below. The customer or the user or the DRYPRO 832 should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6kV contact	±6kV contact	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%. Mains power quality should be that of a typical commercial or hospital environment.
	±8kV air	±8kV air	
Electrical fast transient/burst IEC 61000-4-4	±2kV for power supply lines	±2kV for power supply lines	
	±1kV for input/ output lines	±1kV for input/ output lines	
Surge IEC 61000-4-5	±1kV differential mode	±1kV differential mode	Mains power quality should be that of a typical commercial or hospital environment.
	±2kV common mode	±2kV common mode	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle	<5% U_T (>95% dip in U_T) for 0.5 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of the DRYPRO 832 requires continued operation during power mains interruptions, it is recommended that the DRYPRO 832 be powered from an uninterruptible power supply or a battery.
	40% U_T (60% dip in U_T) for 5 cycles	40% U_T (60% dip in U_T) for 5 cycles	
	70% U_T (30% dip in U_T) for 25 cycles	70% U_T (30% dip in U_T) for 25 cycles	
	<5% U_T> (<95% dip in U_T) for 5 sec	<5% U_T> (<95% dip in U_T) for 5 sec	
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
[NOTE] U_T is the a.c. mains voltage prior to application of the test level.			

(9) EMC Statement

Guidance and manufacturer's declaration - electromagnetic immunity			
The DRYPRO 832 is intended for use in the electromagnetic environment specified below. The customer or the user or the DRYPRO 832 should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3Vrms 150 kHz to 80 MHz 3V/m 80 MHz to 2.5 GHz	[3]V [3]V/m	Portable and mobile RF communications equipment should be used no closer to any part of the DRYPRO 832, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d=[1.2]\sqrt{P}$ $d=[1.2]\sqrt{P}$ 80 MHz to 800 MHz $d=[2.3]\sqrt{P}$ 800 MHz to 2.5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m) Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b] Interference may occur in the vicinity of equipment marked with the following symbol:
[NOTE] At 80 MHz and 800 MHz, the higher frequency range applies. [NOTE] These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the DRYPRO 832 is used exceeds the applicable RF compliance level above, the DRYPRO 832 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re- orienting or relocation the DRYPRO 832. b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than [3]V/m.			

(10) EMC Statement

Recommended separation distances between portable and mobile RF communications equipment and the DRYPRO 832			
The DRYPRO 832 is intended for use in and electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the DRYPRO 832 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the DRYPRO 832 as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d=[1.2]\sqrt{P}$	80 kHz to 800 MHz $d=[1.2]\sqrt{P}$	800 kHz to 2.5 GHz $d=[2.3]\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	8
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. [NOTE] At 80 MHz and 800MHz, the separation distance for the higher frequency range applies. [NOTE] These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

1.2.2 General Precautions

⚠ CAUTION

Do not perform work or operation not contained in this manual.

If you accidentally conduct work, you may burn yourself or get an electric shock due to a hot section and high voltage point contained in this machine.

Make sure to follow safety precautions on warning labels.

Make sure to follow safety precautions contained in this manual and on warning labels attached to this machine. Failure to observe this caution can cause personal injury or damage to this machine.

This product is equipped with a laser generator (class 3B).

Avoid eye or skin exposure to direct laser, as it could cause serious injury.
Wear special safety glasses whenever you perform operation check or the like with the power turned on.
This machine can handle Class 1 laser products with the safety interlock not released.

Anyone with a cardiac pacemaker should keep away from this machine.

There is the danger of causing electromagnetic interference with cardiac pacemakers.

Removing exterior covers

To prevent danger, make sure that only service engineers who received proper formal training will remove the exterior cover or touch the inside of the product.

1.2.3 Handling Precautions

WARNING

If unusual noise, odor, or smoke comes from this product, stop operation.

If unusual noise, odor, or smoke coming from this product is detected, immediately stop operation. If you continue to operate it with abnormal condition left as it is, it could cause an electric shock, fire, or damage to the product.

Be careful not to trip over or trample on the power cable.

If you continue to use the damaged cable, it could cause an electric shock, heat generation or fire.

Do not remove the power plug by pulling on the power cable.

This could cause a break in the power cable, resulting in heat generation or fire.

Do not put drink or foreign object on the product.

Do not put drink such as juice or foreign objects such as clips and pins on this machine. If you use this product with water or foreign object such as metals entered in this machine, it can cause a short in the internal circuit, resulting in fire.

CAUTION

Do not block air intakes or outlets of the product.

If air intakes or outlets of the product are blocked, it can cause failure of the product or reduce the accuracy of reading images.

Do not leave objects standing on the product or do not step on it.

Failure to observe this caution can cause damage to the product.

Do not use equipment such as mobile phone that emits electromagnetic waves.

If you use equipment such as mobile phone that emits electromagnetic waves near the product, it can have negative effect on the product.

1.2.4 Servicing Precautions

WARNING

Do not insert a piece of wire or metal.

Do not insert foreign objects such as metal strip or wire through vent or gap in the main unit. Failure to observe this could cause an electric shock.

Be sure to turn OFF when servicing.

If you pull out the circuit board in this machine or remove connectors and cables with the power turned on, it can cause serious accident.

Make sure to turn OFF the main power supply before starting these operations.

Do not remove lithium batteries carelessly.

The product contains lithium batteries. If you bring a lithium battery near fire or immerse it in water, it could cause an explosion.

CAUTION

When handling internal electronic components of the product, wear a wristband.

When handling internal electronic components, wear an antistatic wristband.

If you touch an energized electronic component such as circuit board, it can cause damage.

Unplug the unit or turn OFF the main power supply before cleaning.

Be sure to unplug the unit or turn OFF the main power supply before cleaning this machine.

You could get your finger caught in sliding or rotating parts.

1.2.5 Disposing of Parts

CAUTION

This DRYPRO 832 product (including lithium batteries), accessories, optional accessories, consumables, and media are designated as industrial waste.

When disposing of these, be sure to have them disposed of by authorized industrial waste disposal firm in accordance with the applicable ordinances and regulations of the local government.

Chapter 2 Before Starting Repair Work

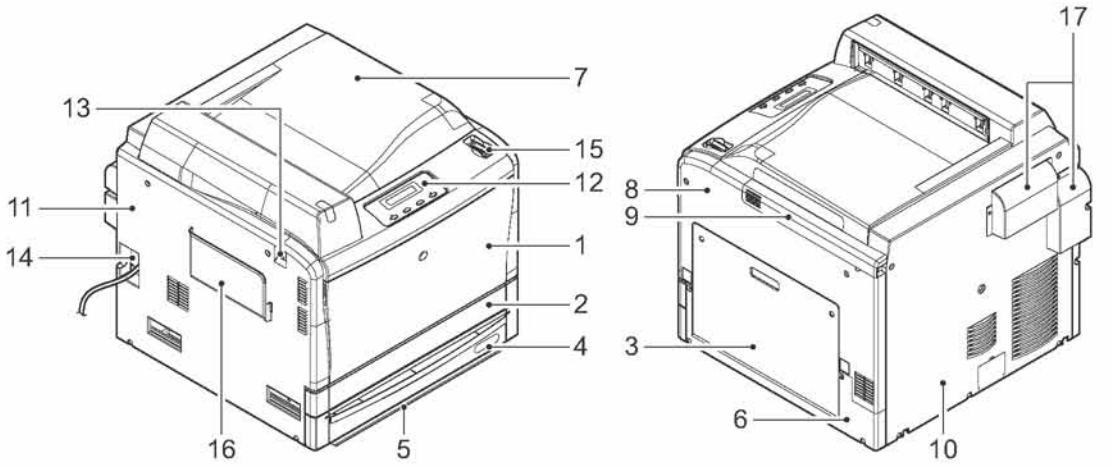
This chapter provides basic knowledge about the product before starting repair work on DRYPRO 832.

2.1 Names of Parts 2-2
2.1.1 Unit Exterior 2-2
2.1.2 Unit Interior.....2-3
2.1.3 Supply Tray 2-3
2.1.4 Lispl-832 (optional).....2-4
2.2 Structure 2-4
2.3 Tools, Measuring Instruments, and Jigs Necessary for Servicing.....2-5

2.1 Names of Parts

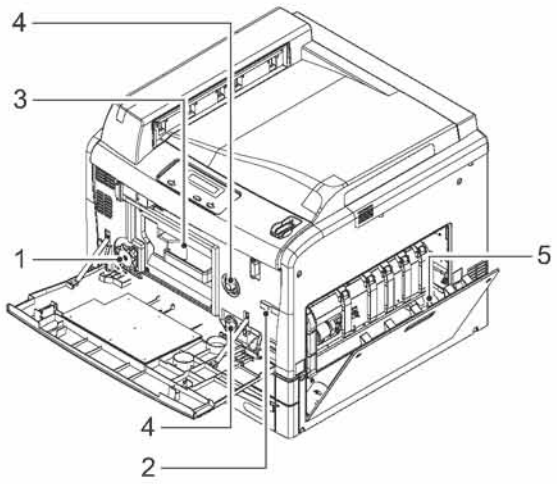
Names of the parts that you need to know when installing the DRYPRO 832 unit are shown below.

2.1.1 Unit Exterior



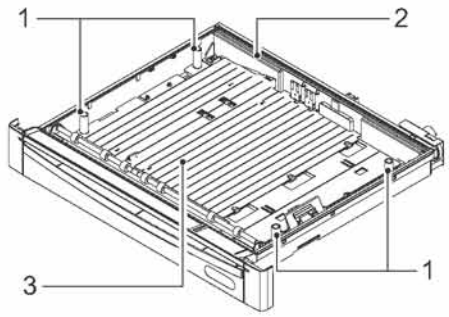
No.	Name	No.	Name
1	Front Cover	2	Lower Front Cover
3	Right Cover	4	Supply Tray
5	Tray Shutter	6	Lower Right Cover
7	Film Ejection Tray	8	Upper Right Cover
9	LAN Cover	10	Rear Cover
11	Left Cover	12	Operation Panel
13	Operation Switch	14	Main Power Supply
15	Cutter Pocket/Cutter	16	Operation Sheet Box
17	Exhaust Ducts		

2.1.2 Unit Interior



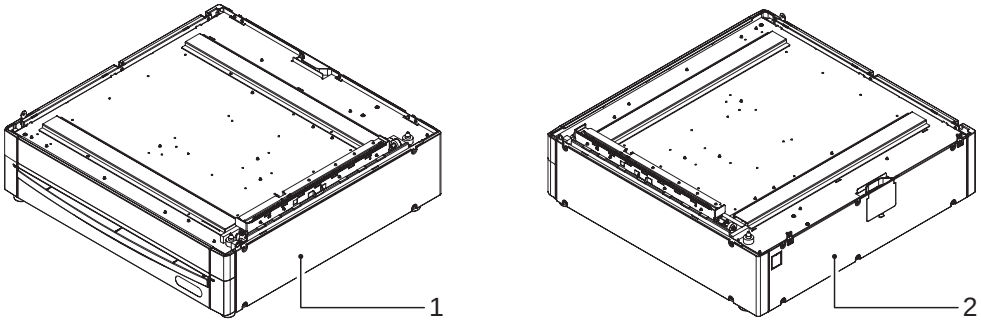
No.	Name	No.	Name
1	Lever A	2	Lever B
3	Deodorant Filter Case (Internal: deodorant filter)	4	Stabilizer
5	External Guide Unit Assembly		

2.1.3 Supply Tray



No.	Name	No.	Name
1	Film Regulation Pin	2	Cutter Guide
3	Intermediate Plate		

2.1.4 Lispl-832 (optional)



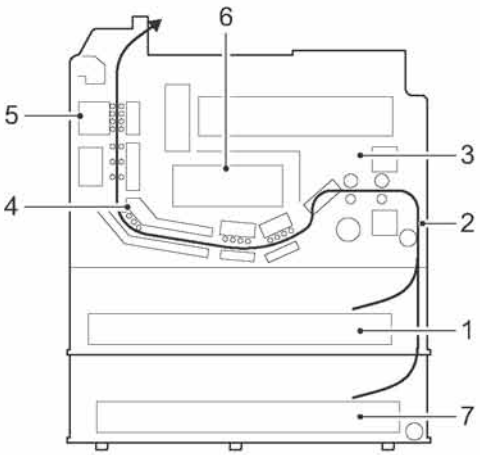
No.	Name	No.	Name
1	Right Cover	2	Rear Cover

2.2 Structure

The structure of DRYPRO 832 is shown below.

Film is fed in the order from No. 1 to No. 5 during the printing process.

However, if the Lispl-832 option is installed and film is loaded into the Lispl-832, film is fed in order from No.7 to No.2.



No.	Name	Function
1	Supply Unit	Picks up film in the supply tray one by one and transports to the justification unit.
2	Justification Unit	Regulates the horizontal position of the film transported from the supply unit and transports it to the exposure unit.
3	Exposure Unit	Scans laser beam in synchronization with the film transportation and writes images on the film.
4	Heat Process Unit	Processes the exposed film by heating.
5	Cooling Transport Unit	Cools and discharges the heat processed film.
6	Deodorant Filter	Removes odors emitted during the heat process. Periodic change is needed.
7	Lispl-832 (optional)	Picks up film in Lispl-832 one by one and transports to the justification unit.

2.3 Tools, Measuring Instruments, and Jigs Necessary for Servicing

In addition to the standard tools, the following tools, measuring instruments, and jigs are necessary for servicing DRYPRO 832.

Name	Remarks
Allen wrench	
Stubby screwdriver	
Cutter	
Tape such as packaging tape	
Laser goggles	Those that block the laser wavelength of 784 nm.
Optical power meter	The meter that can measure the laser wavelength of 784 nm.
IR card	
Densitometer	
Ethanol (ethyl alcohol)	
Lens cleaner	
Melamine foam	Used to clean the heat process unit and cool transport unit.
Waste cloth (paper towel)	
Vacuum cleaner	
Cotton work gloves	
Marking-off pin	

Chapter 3 Basic Operations

This chapter describes basic operations when repairing DRYPRO 832, including the procedures for installing or removing a supply tray and exterior cover, opening or closing covers, and wearing a grounding strap.

3.1 Removing/Installing Supply Tray.....3-2
3.2 Opening/Closing Cover.....3-4
3.2.1 Opening/Closing Front Cover..... 3-4
3.2.2 Opening/Closing Right Cover..... 3-5
3.3 Removing/Installing Exterior Cover.....3-6
3.3.1 Removing/Installing Lower Right Cover..... 3-6
3.3.2 Removing/Installing Film Ejection Tray 3-10
3.3.3 Removing/Installing Upper Right Cover 3-12
3.3.4 Removing/Installing Rear Cover 3-18
3.3.5 Removing/Installing Rear Cover (Lispl-832) 3-20
3.3.6 Removing/Installing Left Cover 3-22
3.4 Installing a Grounding Strap.....3-24
3.5 Manually Unlocking the Tray.....3-24

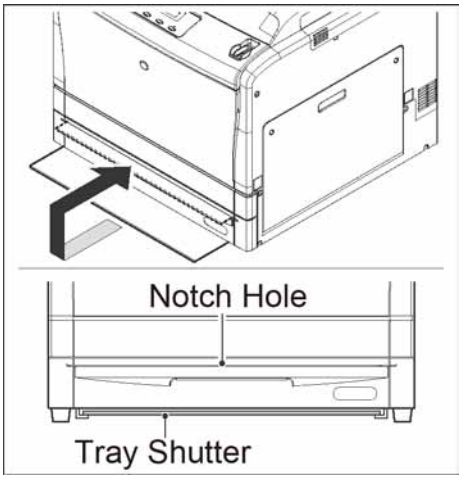
3.1 Removing/Installing Supply Tray

This section describes how to remove/install a supply tray.

> **Caution** Use the procedure for removing a supply tray provided here with power turned OFF when installing or repairing DRYPRO 832. For information about how to remove a supply tray with DRYPRO 832 turned ON, see the operation manual.

> **Note**
> - Use the same procedure when removing Lispl-832 tray.
> - When removing Lispl-832 tray, pull out the tray shutter on the lower part of Lispl-832.

■ Removal Procedure

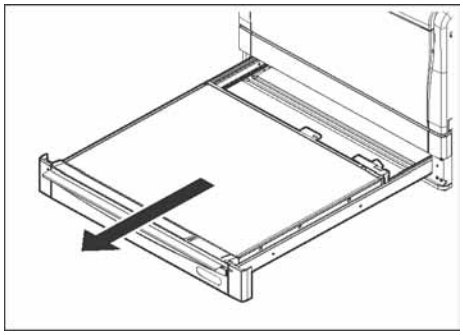


1 Pull the tray shutter out of the lower part of the supply tray.

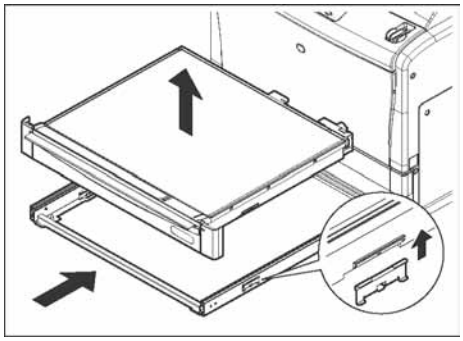
2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes the supply tray to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Slowly pull out the supply tray fully.



4 Remove the tray from the rails.

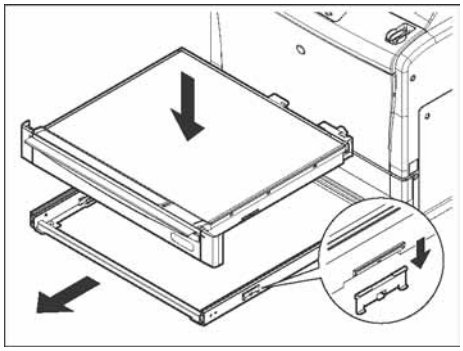
Since the tray unit is held in by pins on both sides of the rails, apply light pressure to remove.

5 Put the rails in the frame.

> **Caution** If you leave the rails protruded, workers or other people near by may come into contact with the rails, resulting in personal injury or damage to the equipment. Make sure to put the rails with the tray unit removed in the frame.

This is the end of the process of removing the supply tray.

■ Installation Procedure

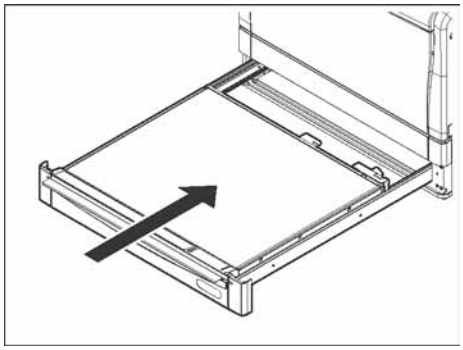


1 Pull out the rails.

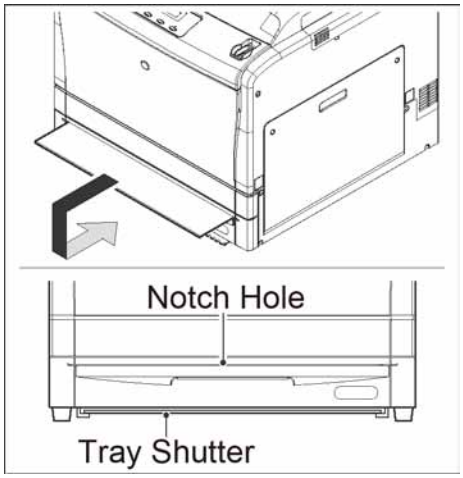
2 Install the tray on the rails.

Place the supply tray so that the pinhole in the rails aligns with the pin position on the back of the supply tray. Push in the supply tray until it clicks into place.

> **Caution**
> - Be careful not to push the supply tray excessively, as it can distort the rails.
> - If the tray unit is not positioned properly, it may interfere with the main unit and it may become impossible to insert into the unit.



3 Put the supply tray back into the main unit.



4 Remove the tray shutter and return it to the previous position.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the supply tray.

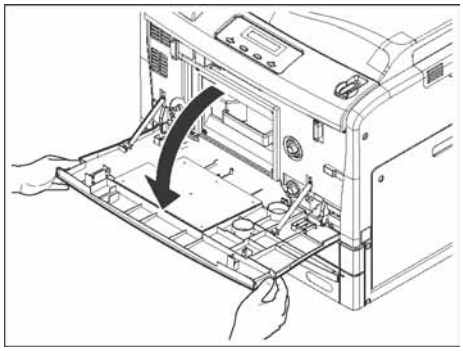
3.2 Opening/Closing Cover

This section describes how to open or close the front cover and right cover.

3.2.1 Opening/Closing Front Cover

This section describes how to open or close the front cover.

■ How to open the front cover



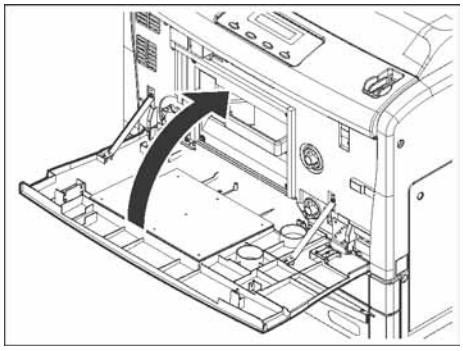
1 Open the front cover.

The front cover will open by pulling its upper part on both sides.

> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.

This is the end of the process of opening the front cover.

■ How to close the front cover



1 Close the front cover.

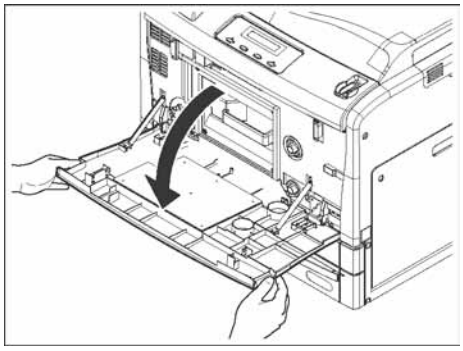
When closing the front cover, check that the two magnets at the top edge of the front cover are in the correct position on the main unit.

This is the end of the process of closing the front cover.

3.2.2 Opening/Closing Right Cover

This section describes how to open or close the right cover.

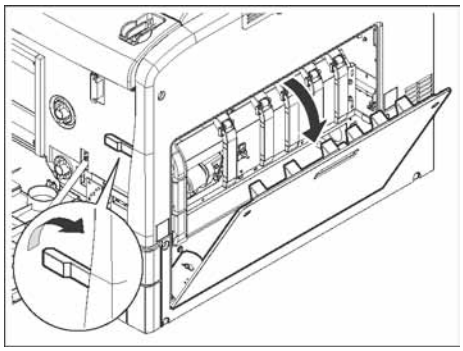
■ How to open the right cover



1 Open the front cover.

The front cover will open by pulling its upper part on both sides.

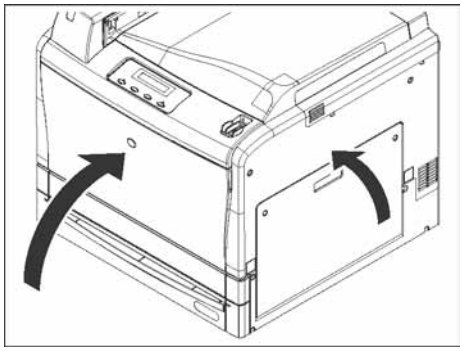
> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.



2 Open the right cover by rotating the lever B in the direction of an arrow.

This is the end of the process of opening the right cover.

■ How to close the cover



1 Close the right and front covers.

This is the end of the process of closing the cover.

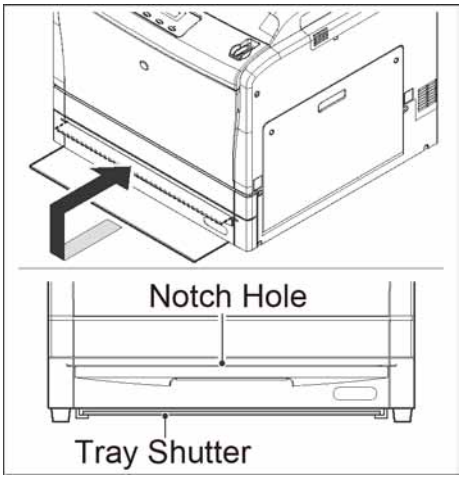
3.3 Removing/Installing Exterior Cover

3.3.1 Removing/Installing Lower Right Cover

This section describes how to remove/install the lower right cover.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

■ Removal Procedure

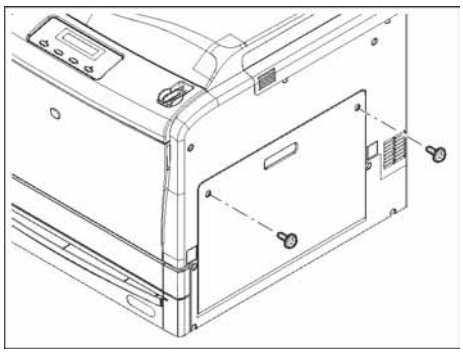


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

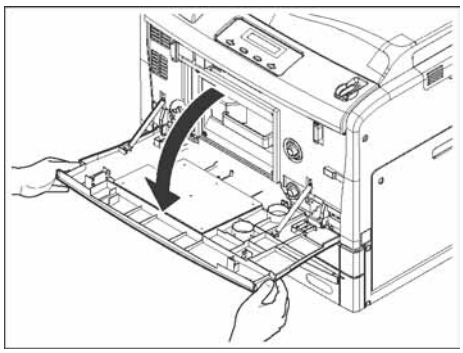
Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the right cover screws.

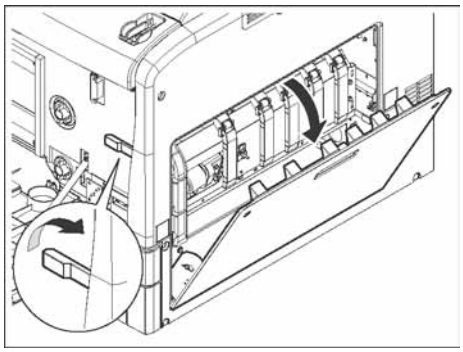
・Two screws (M4×8)



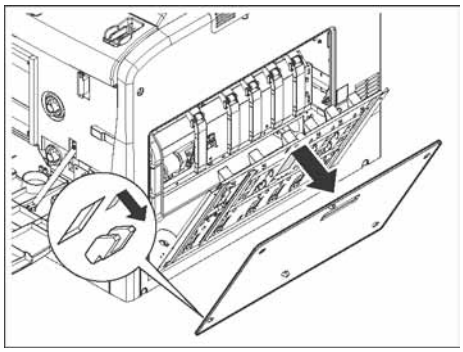
4 Open the front cover.

The front cover will open by pulling its upper part on both sides.

> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.

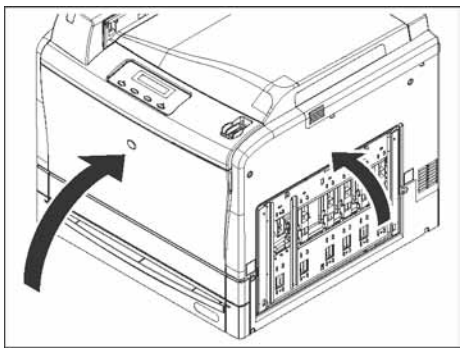


5 Open the right cover by rotating the lever B in the direction of an arrow.

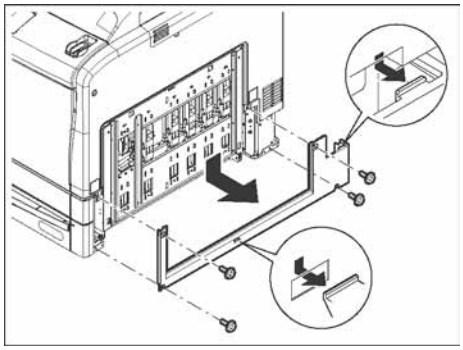


6 Remove the right cover from the external guide unit assembly.

Slide the right cover upward, so that the tabs (four places) inside the right cover are detached from the external guide assembly, and then remove the cover.



7 Close the front cover and external guide unit assembly.



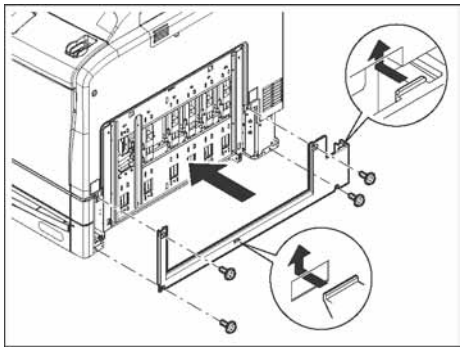
8 Remove the lower right cover.

• Four screws (M4×8)

Slide the lower right cover downward so that the tabs (two locations) on the lower right cover are detached from the main unit, and then remove the cover.

This is the end of the process of removing the lower right cover.

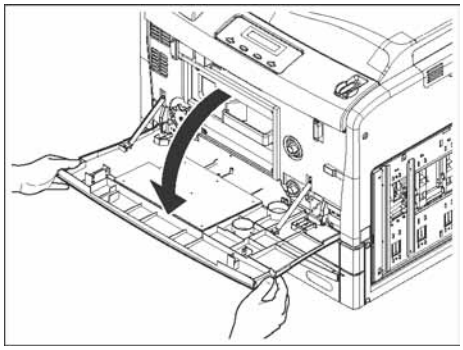
■ Cover Installation Procedure



1 Install the lower right cover.

• Four screws (M4×8)

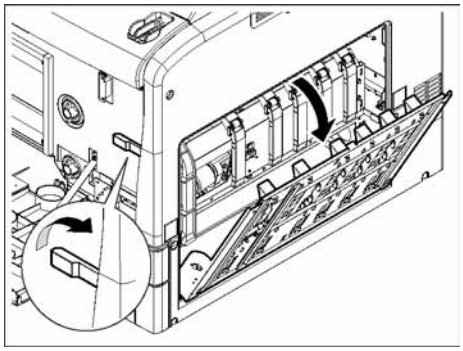
Slide the lower right cover upward so that the tabs (two locations) on the lower right cover hook onto the main unit to install the cover.



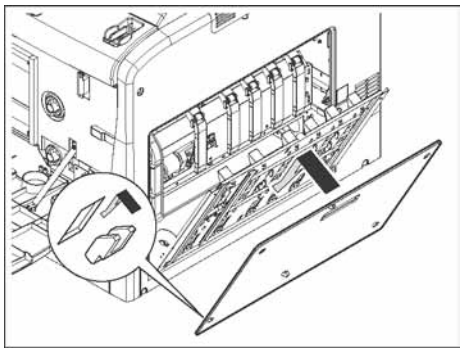
2 Open the front cover.

The front cover will open by pulling its upper part on both sides.

> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.

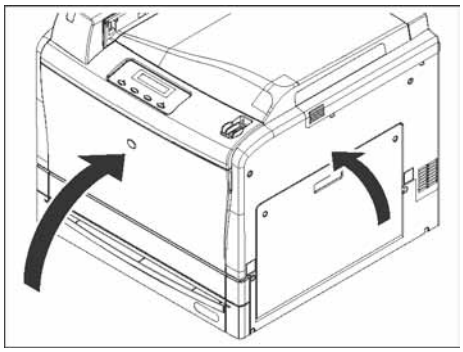


3 Open the right cover by rotating the lever B in the direction of an arrow.

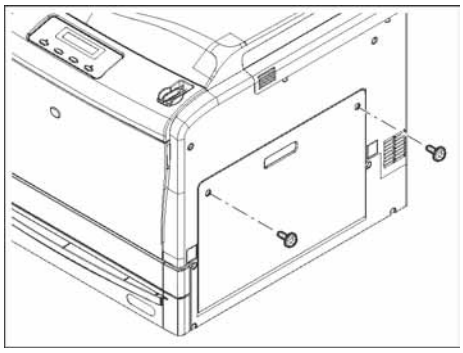


4 Install the right cover.

Hook the tabs (four locations) on the inside of the right cover onto the external guide assembly, and slide the right cover downward to install.

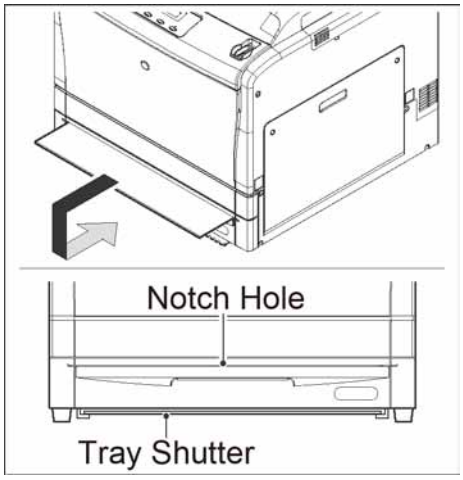


5 Close the right and front covers.



6 Fit the right cover with screws.

- Two screws (M4×8)



7 Put the supply tray back into the main unit.

8 Remove the tray shutter and return it to its original position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

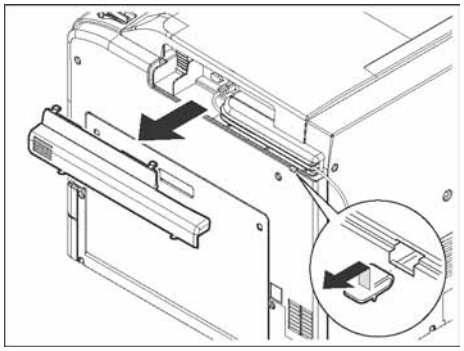
This is the end of the process of installing the lower right cover.

3.3.2 Removing/Installing Film Ejection Tray

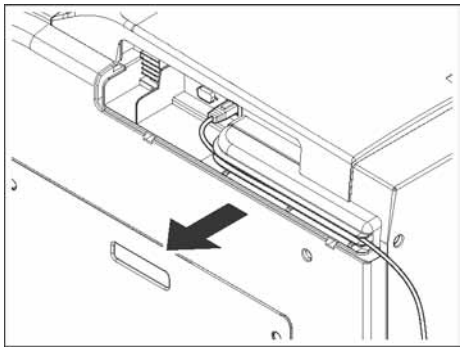
This section describes how to remove/install the film ejection tray.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

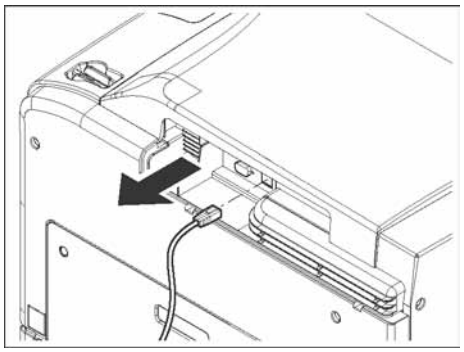
■ Removal Procedure



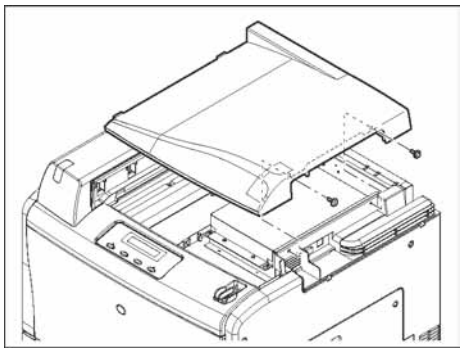
1 Remove the LAN cover.



2 Remove the LAN cable from the connector cover slots.



3 Disconnect the LAN cable.

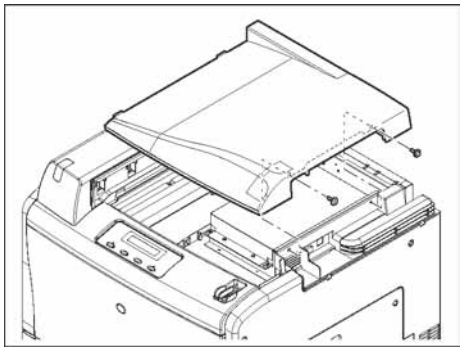


4 Remove the film ejection tray.

- Two screws (M4×8)

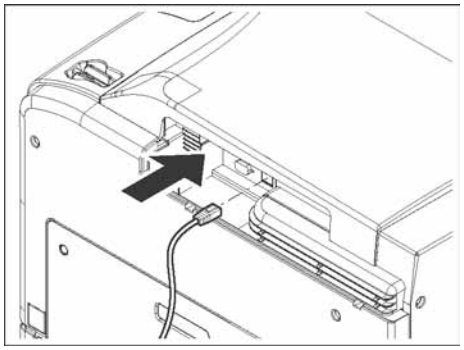
This is the end of the process of removing the film ejection tray.

■ Installation Procedure

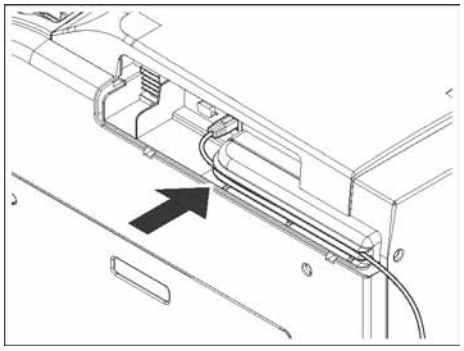


1 Install the film ejection tray.

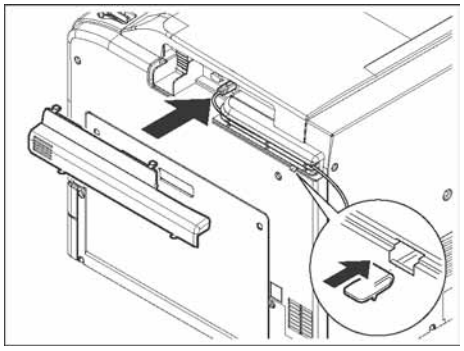
• Two screws (M4×8)



2 Connect the LAN cable to the ethernet port.



3 Insert the LAN cable into the connector cover slots.



4 Install the LAN cover.

First insert the tabs (two places) on the top side of the LAN cover and then insert the tabs on the bottom side (two places).

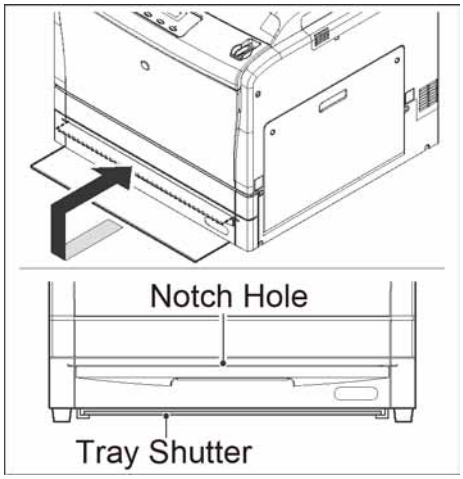
This is the end of the process of installing the film ejection tray.

3.3.3 Removing/Installing Upper Right Cover

This section describes how to remove/install the upper right cover.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

■ Removal Procedure

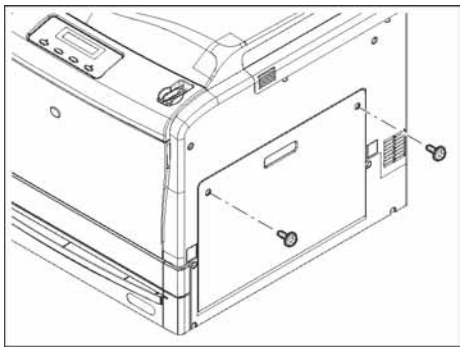


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

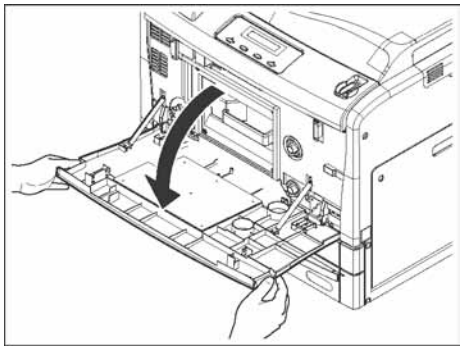
Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the right cover screws.

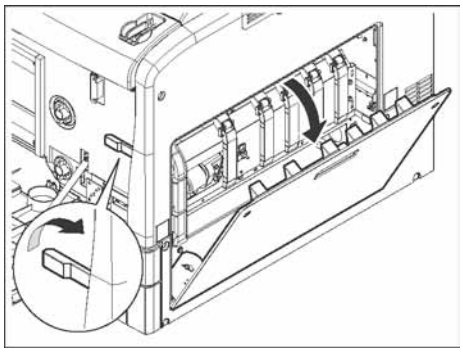
• Two screws (M4×8)



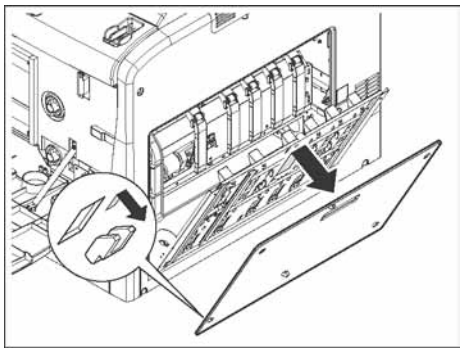
4 Open the front cover.

The front cover will open by pulling its upper part on both sides.

> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.

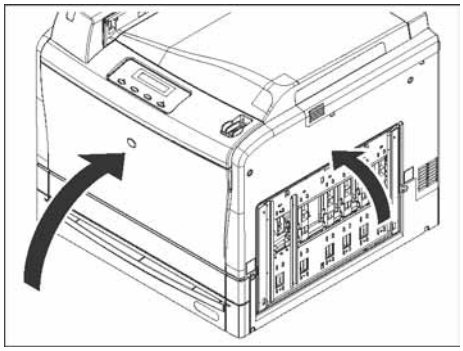


5 Open the right cover by rotating the lever B in the direction of an arrow.

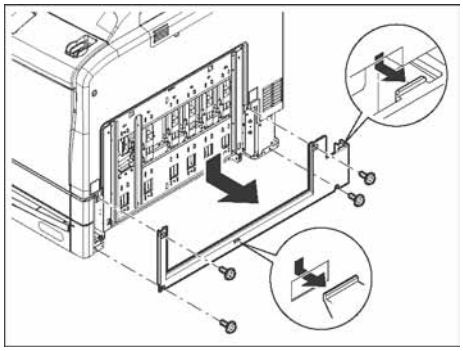


6 Remove the right cover from the external guide unit assembly.

Slide the right cover upward, so that the tabs (four places) inside the right cover are detached from the external guide assembly, and then remove the cover.



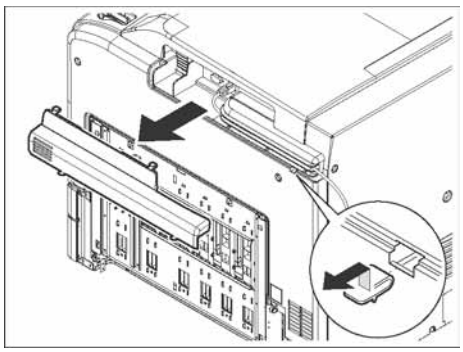
7 Close the front cover and external guide unit assembly.



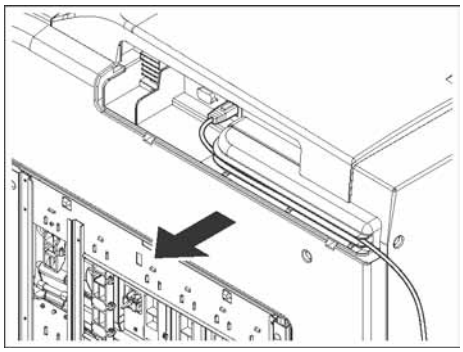
8 Remove the lower right cover.

• Four screws (M4×8)

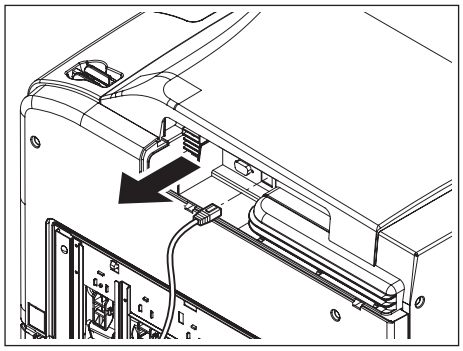
Slide the lower right cover downward so that the tabs (two locations) on the lower right cover are detached from the main unit, and then remove the cover.



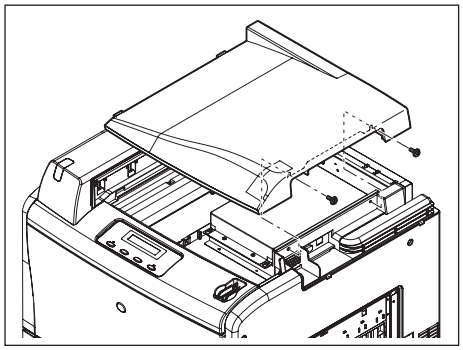
9 Remove the LAN cover.



10 Remove the LAN cable from the connector cover slots.

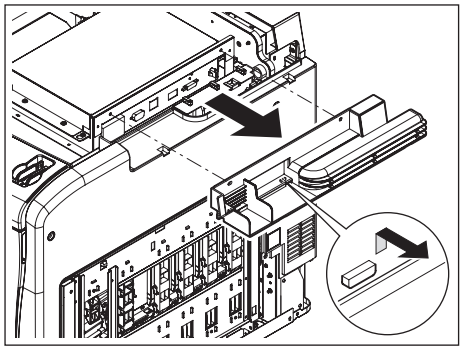


11 Disconnect the LAN cable.

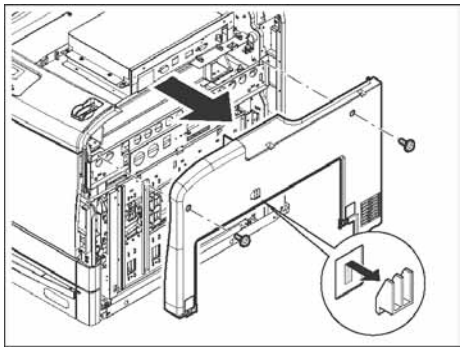


12 Remove the film ejection tray.

• Two screws (M4×8)



13 Remove the connector cover.



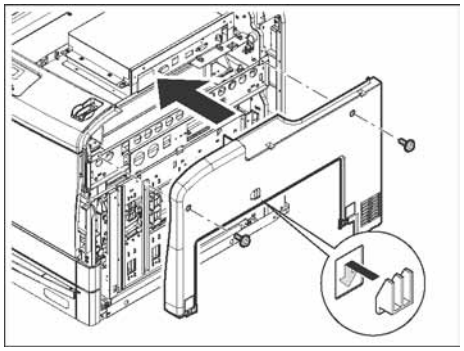
14 Remove the upper right cover.

• Two screws (M4×8)

Slide the upper right cover upward so that the tab (one location) on the upper right cover is detached from the main unit, and then remove the cover.

This is the end of the process of removing the upper right cover.

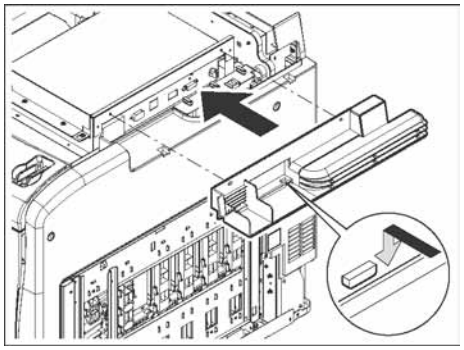
■ Installation Procedure



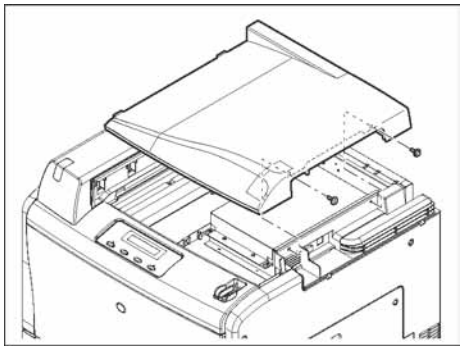
1 Install the upper right cover.

• Two screws (M4×8)

Slide the upper right cover downward so that the tab (one location) on the upper right cover hooks onto the main unit to install the cover.

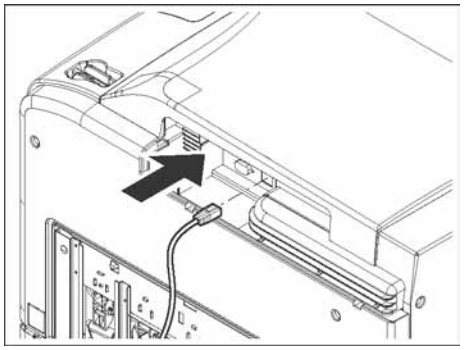


2 Install the connector cover.

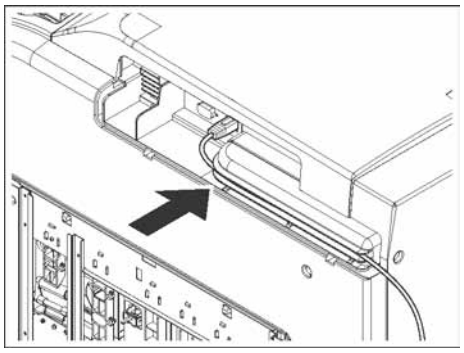


3 Install the film ejection tray.

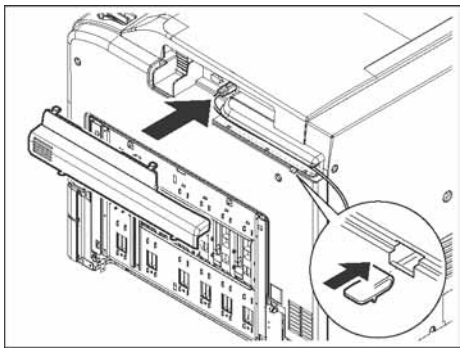
• Two screws (M4×8)



4 Connect the LAN cable to the ethernet port.

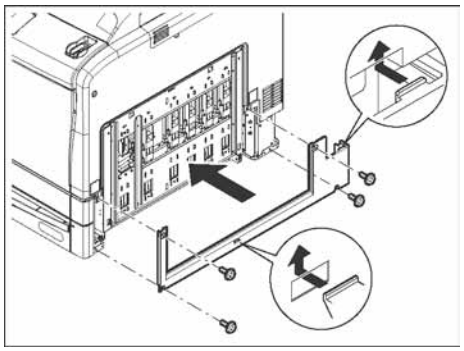


5 Insert the LAN cable into the connector cover slots.



6 Install the LAN cover.

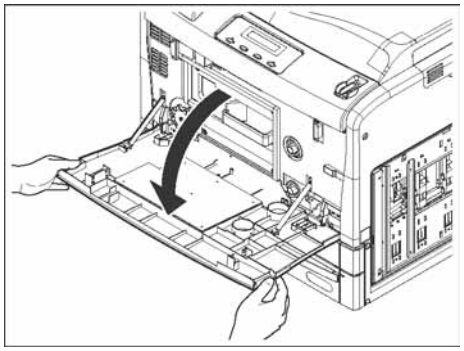
First insert the tabs (two places) on the top side of the LAN cover and then insert the tabs on the bottom side (two places).



7 Install the lower right cover.

• Four screws (M4×8)

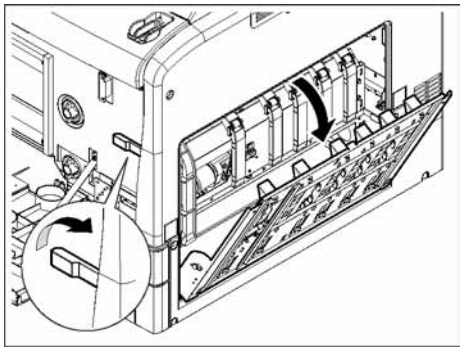
Slide the lower right cover upward so that the tabs (two locations) on the lower right cover hook onto the main unit to install the cover.



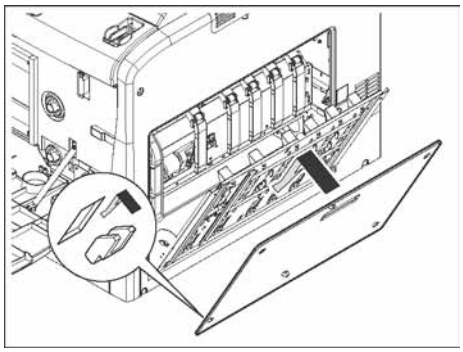
8 Open the front cover.

The front cover will open by pulling its upper part on both sides.

> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.

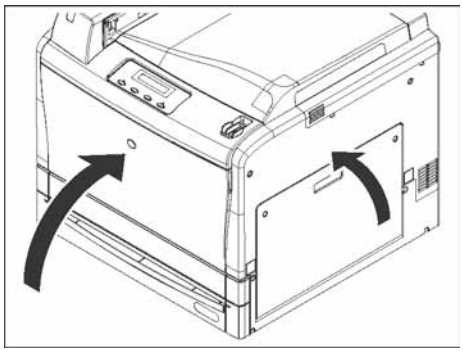


9 Open the right cover by rotating the lever B in the direction of an arrow.

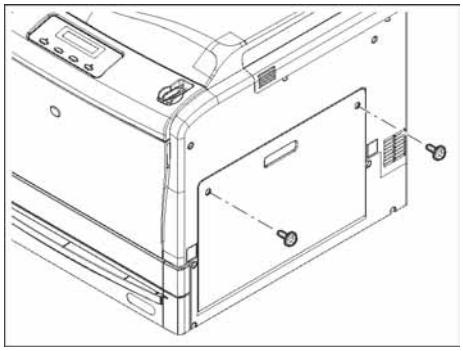


10 Install the right cover.

Hook the tabs (four locations) on the inside of the right cover onto the external guide assembly, and slide the right cover downward to install.

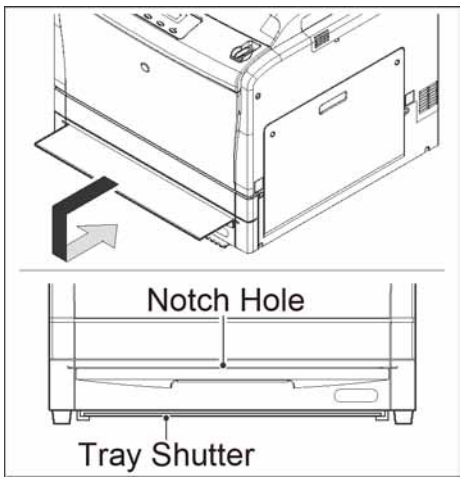


11 Close the front and right covers.



12 Fit the right cover with screws.

• Two screws (M4×8)



13 Put the supply tray back into the main unit.

14 Remove the tray shutter and return it to its original position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

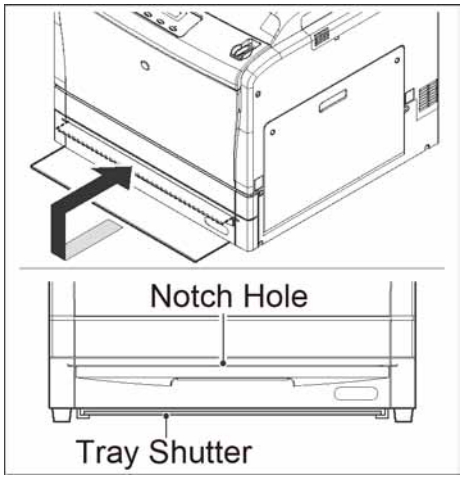
This is the end of the process of installing the upper right cover.

3.3.4 Removing/Installing Rear Cover

This section describes how to remove/install the rear cover.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

■ Removal Procedure

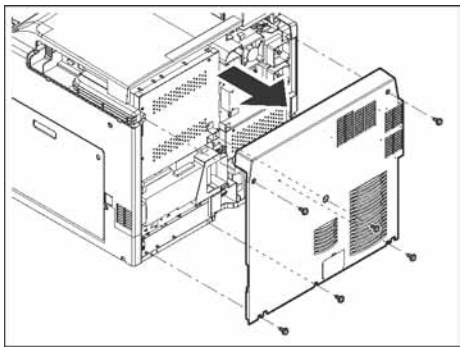


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



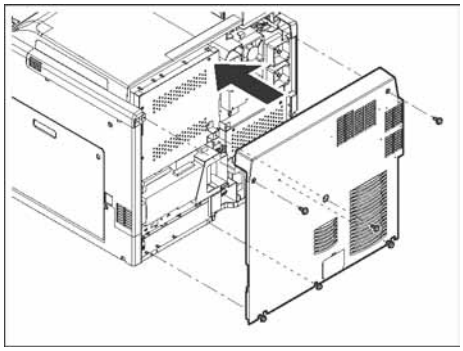
3 Remove the rear cover.

• Six screws (M4×8)

> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three.

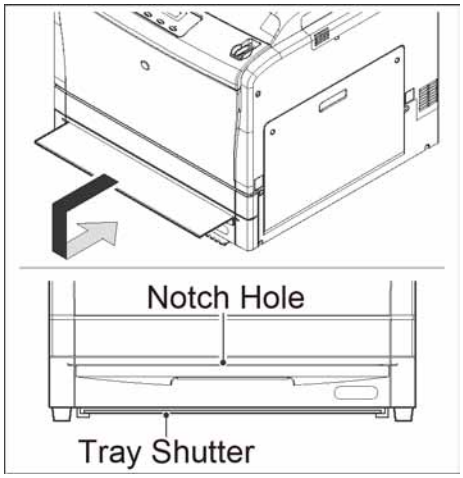
This is the end of the process of removing the rear cover.

■ Installation Procedure



1 Install the rear cover.

• Six screws (M4×8)



2 Put the supply tray back into the main unit.

3 Remove the tray shutter and return it to its original position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

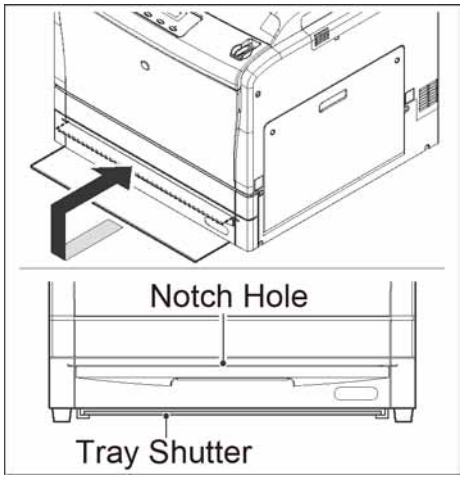
This is the end of the process of installing the rear cover.

3.3.5 Removing/Installing Rear Cover (Lispl-832)

This section describes how to remove/install Lispl-832 tray rear cover.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

■ Removal Procedure

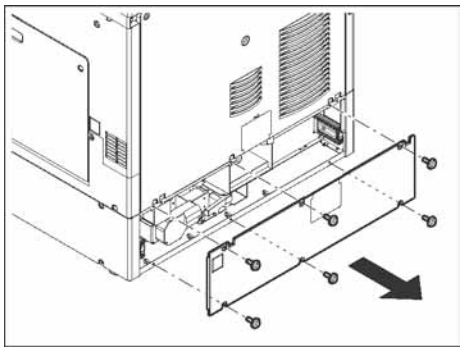


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

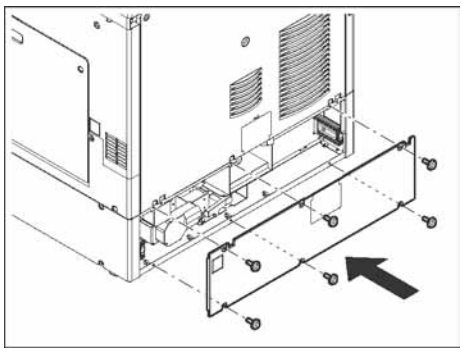


3 Remove the rear cover.

• Six screws (M4×8)

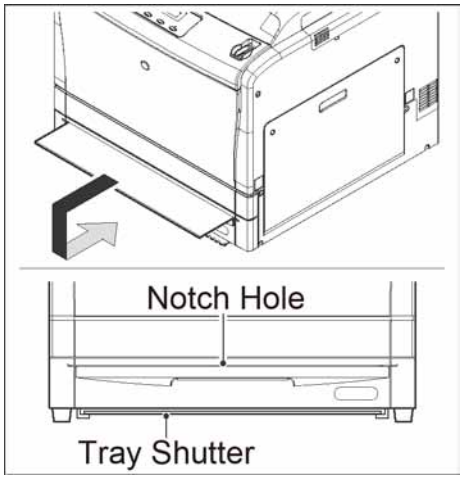
This is the end of the process of removing the rear cover.

■ Installation Procedure



1 Install the rear cover.

• Six screws (M4×8)



2 Put the supply tray back into the main unit.

3 Remove the tray shutter and return it to its original position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

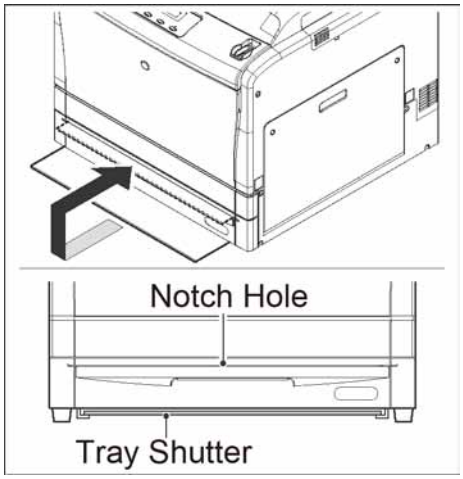
This is the end of the process of installing the rear cover.

3.3.6 Removing/Installing Left Cover

This section describes how to remove/install the left cover.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

■ Removal Procedure

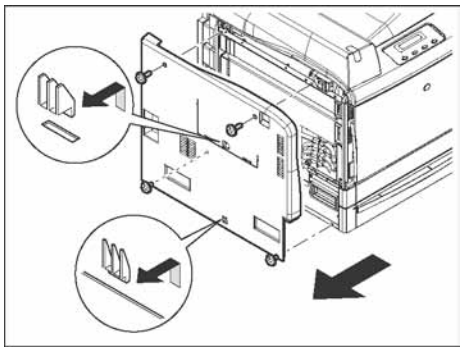


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the left cover.

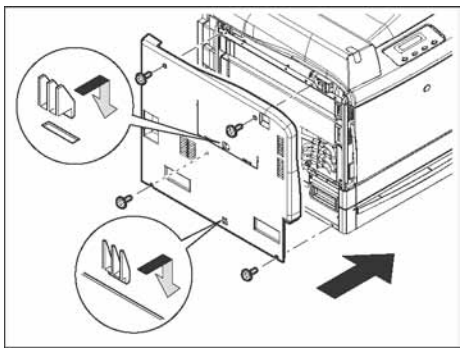
• Four screws (M4×8)

Slide the left cover upward so that the tabs (two locations) on the inside of the left cover detach from the main unit, and remove the cover.

> **Note** Remove two screws on the upper part of the left cover and loosen two screws on the lower part.

This is the end of the process of removing the left cover.

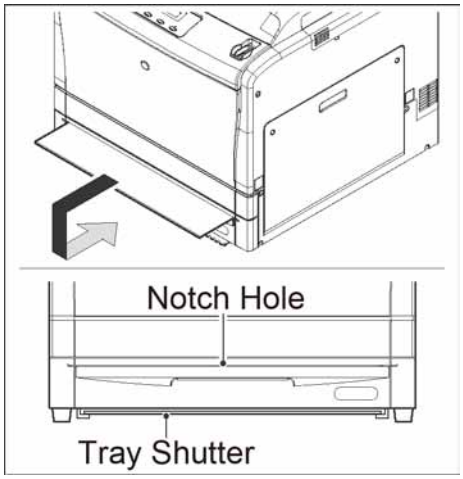
■ Installation Procedure



1 Install the left cover.

• Four screws (M4×8)

Slide the left cover downward so that the tabs (two locations) inside the left cover hook onto the main unit to install the cover.



2 Put the supply tray back into the main unit.

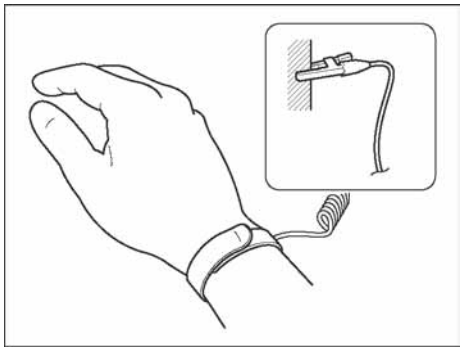
3 Remove the tray shutter and return it to its original position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the rear cover.

3.4 Installing a Grounding Strap

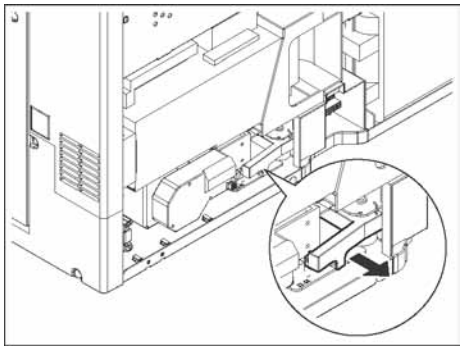
> **Caution** To avoid damage to the system board caused by electrostatic discharge, wear a wrist grounding strap when accessing the system board for work.



1 Ground yourself by using a wrist grounding strap and put the other clip in a metal part of the main unit that makes a good ground.

3.5 Manually Unlocking the Tray

> **Caution**
> - Manually unlocking the tray is a method of releasing the tray lock when you can not insert the tray shutter and/or can not pull out the supply tray due to some type of resistance within the supply unit.
> - Because the film inside the supply tray will be exposed when the tray is pulled out by manually operating the tray lock lever, that film will no longer be usable.



1 Refer to step 3 of "3.3.4 Removing/Installing Rear Cover (Page 3-18)" and remove the rear cover.

> **Note** With the Lispl-832, refer to step 3 of "3.3.5 Removing/Installing Rear Cover (Lispl-832) (Page 3-20)" and remove the rear cover.

2 Pull the tray lock lever towards you.

The tray lock will be released.

Chapter 4 Replacing Supply Unit Loading Parts

This chapter describes how to replace loading parts in the supply unit when they fail and how to adjust after replacing the loading parts.

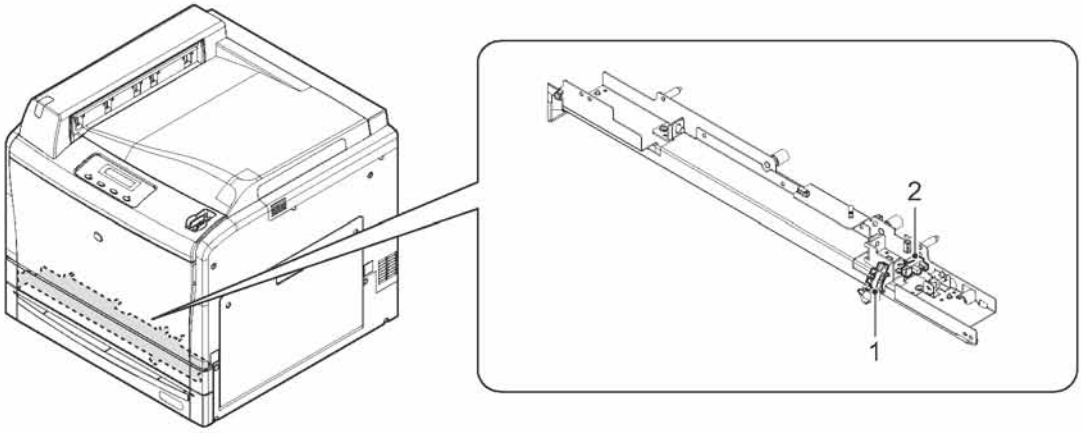
4.1 Light Shield Unit.....4-2
- 4.1.1 Placing Loading Parts 4-2
- 4.1.2 Removing/Installing Light Shield Assembly ... 4-3
- 4.1.3 Replacing Barrier Bag Detection Sensor 4-6
- 4.1.4 Replacing Film Height Detection Sensor 4-8

4.2 Pickup Unit.....4-10
- 4.2.1 Placing Loading Parts 4-10
- 4.2.2 Removing/Installing Pickup Unit Assembly ... 4-11
- 4.2.3 Replacing Pickup Transport Motor 4-15
- 4.2.4 Replacing Pickup HP Motor 4-18
- 4.2.5 Replacing Pickup HP Sensor 4-20

4.1 Light Shield Unit

4.1.1 Placing Loading Parts

The light shield unit in the supply unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Barrier bag detection sensor	This photo sensor detects the presence or absence of the barrier bag. For more information, see "4.1.3 Replacing Barrier Bag Detection Sensor (Page 4-6)".
2	Film height detection sensor	This photo sensor detects the height of film loaded in the supply tray. For more information, see "4.1.4 Replacing Film Height Detection Sensor (Page 4-8)".

4.1.2 Removing/Installing Light Shield Assembly

This section describes the procedure for removing or installing the light shield unit assembly when replacing loading parts in the light shield unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing load parts.

Work outline

The number of personnel and the estimated work hours required to replace load parts is as follows:

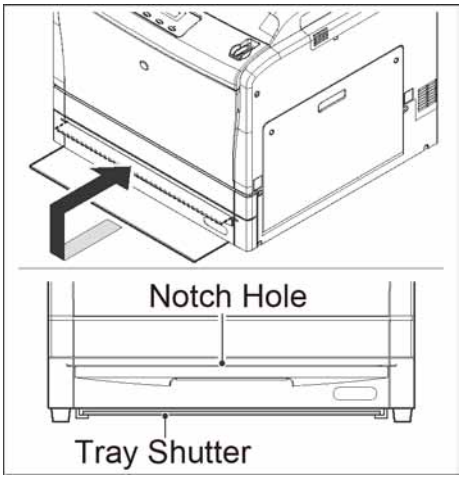
Number of Personnel	Work Hours
1	3 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)

■ Removal Procedure

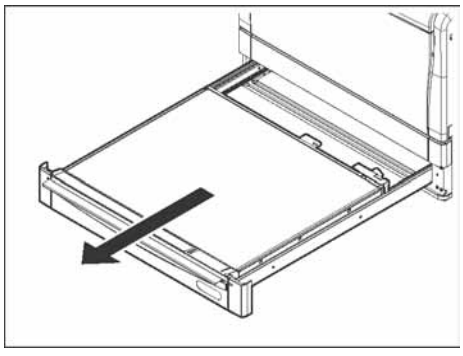


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

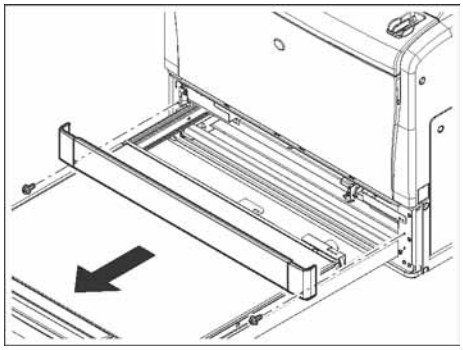
Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



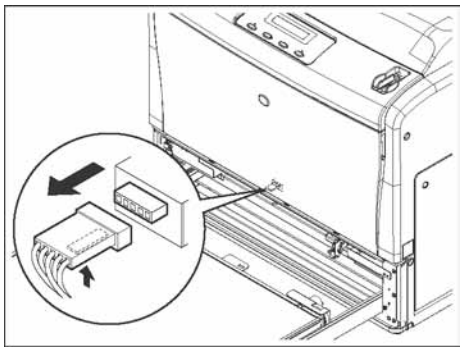
3 Slowly pull out the supply tray fully.

> **Caution** Do not place objects on, lean on, or apply loads on the pulled out supply tray.



4 Remove the lower front cover.

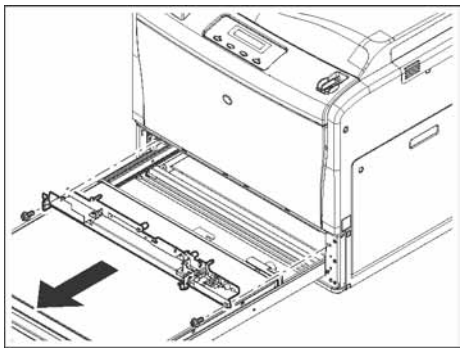
- Two screws (M3×8)



5 Remove the connector (JJ48).

For Lispl-832, remove the Lispl-832 side connector (JJ48).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



6 Remove the light shield unit assembly.

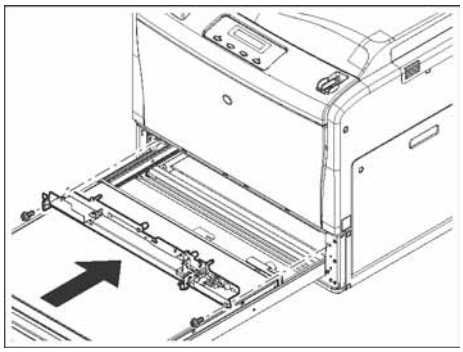
- Two screws (M3×8)

> **Caution** When removing the light shield unit assembly, be careful not to cause the sensor to come into contact with the parts inside the main unit.

This is the end of the process of removing light shield unit assembly.

- When replacing the barrier bag sensor, go to "4.1.3 Replacing Barrier Bag Detection Sensor (Page 4-6)".
- When replacing the film height detection sensor, go to "4.1.4 Replacing Film Height Detection Sensor (Page 4-8)".

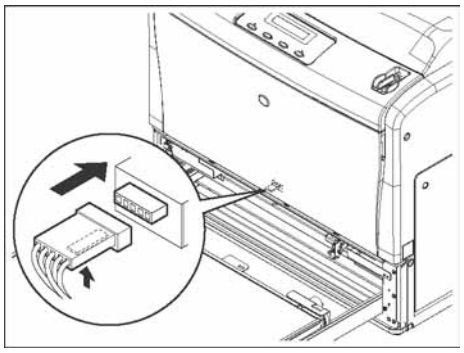
■ Installation Procedure



1 Install the light shield unit assembly.

- Two screws (M3×8)

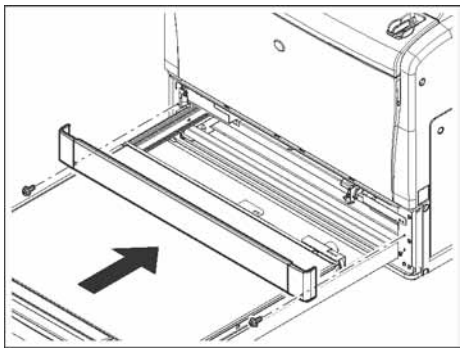
> **Caution** When installing the light shield unit assembly, be careful not to cause the sensor to come into contact with the parts inside the main unit.



2 Connect the connector (JJ48).

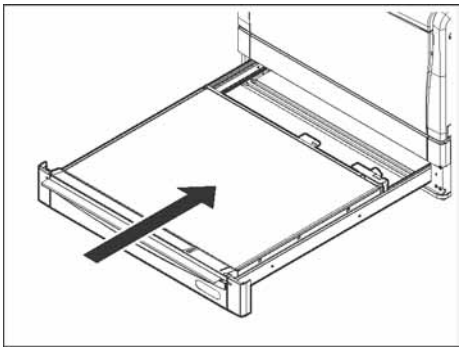
For Lispl-832, remove the Lispl-832 side connector (JJ48).

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

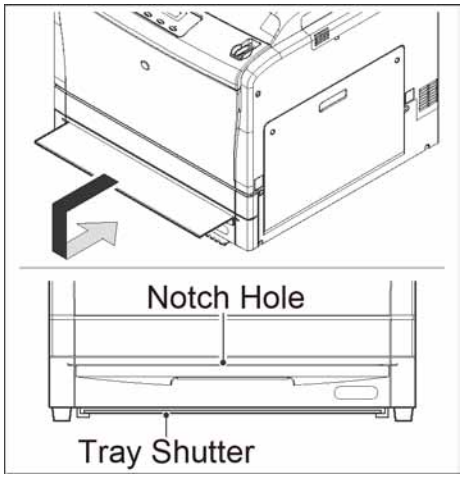


3 Install the lower front cover.

- Two screws (M3×8)



4 Put the supply tray back into the main unit.



5 Remove the tray shutter and return it to the previous position.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the light shield unit assembly.

4.1.3 Replacing Barrier Bag Detection Sensor

Replace the photo sensor that detects the presence or absence of the barrier bag.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing load parts.

Work outline

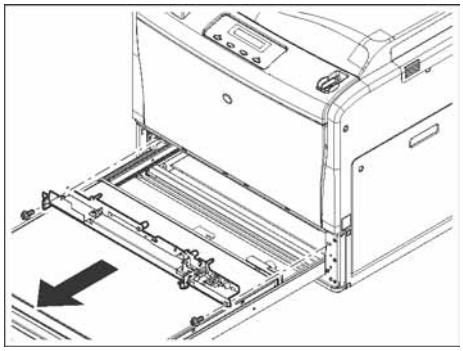
The number of personnel and the estimated work hours required to replace load parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

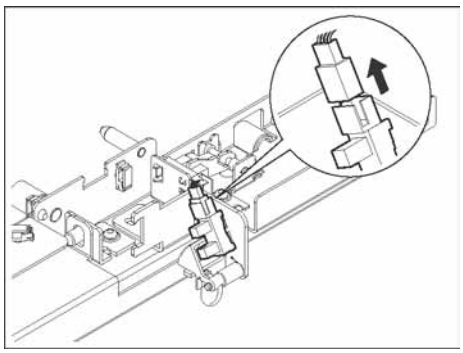
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



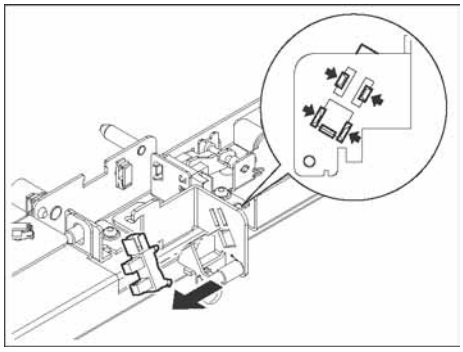
1 Remove the supply tray, lower front cover, connector (JJ48), and light shield unit assembly with reference to "■ Removal Procedure (Page 4-3)" in "4.1.2 Removing/Installing Light Shield Assembly".

> **Caution** When replacing loading parts, be sure to replace with the tray shutter attached.
> If some of film remains in the tray, the film may be exposed.



2 Remove the connector (JP30).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



3 Push the tab on the back of the sensor inward and remove the photo sensor.

4 Insert a new photo sensor in the mounting hole.

5 Connect the connector (JP30) removed in step 2.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

6 Install the light shield unit assembly, connector (JJ48), and lower front cover with reference to "■ Installation Procedure (Page 4-4)" in "4.1.2 Removing/Installing Light Shield Assembly".

7 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the barrier bag detection sensor.

4.1.4 Replacing Film Height Detection Sensor

Replace the photo sensor that detects the height of film loaded in the supply tray.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing load parts.

Work outline

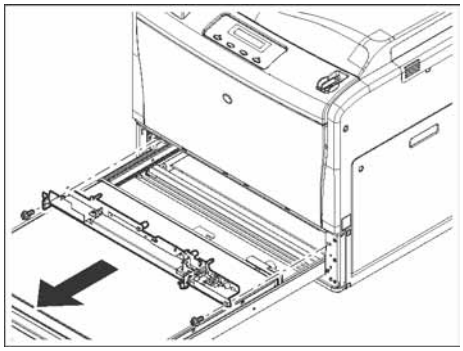
The number of personnel and the estimated work hours required to replace load parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

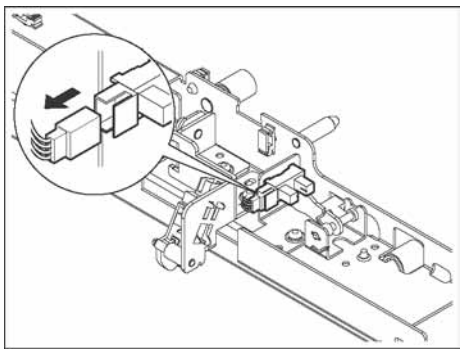
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



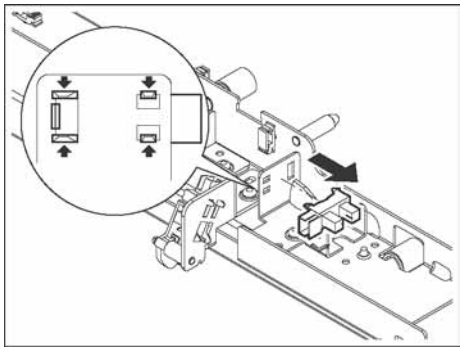
1 Remove the supply tray, lower front cover, connector (JJ48), and light shield unit assembly with reference to "■ Removal Procedure (Page 4-3)" in "4.1.2 Removing/Installing Light Shield Assembly".

> **Caution** When replacing loading parts, be sure to replace with the tray shutter attached.
> If some of film remains in the tray, the film may be exposed.



2 Remove the connector (JP29).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



3 Push the tab on the back of the sensor inward and remove the photo sensor.

4 Insert a new photo sensor in the mounting hole.

5 Connect the connector (JP29) removed in step 2.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

6 Install the light shield unit assembly, connector (JJ48), and lower front cover with reference to "■ Installation Procedure (Page 4-4)" in "4.1.2 Removing/Installing Light Shield Assembly".

7 Return the supply tray and tray shutter to their original positions.

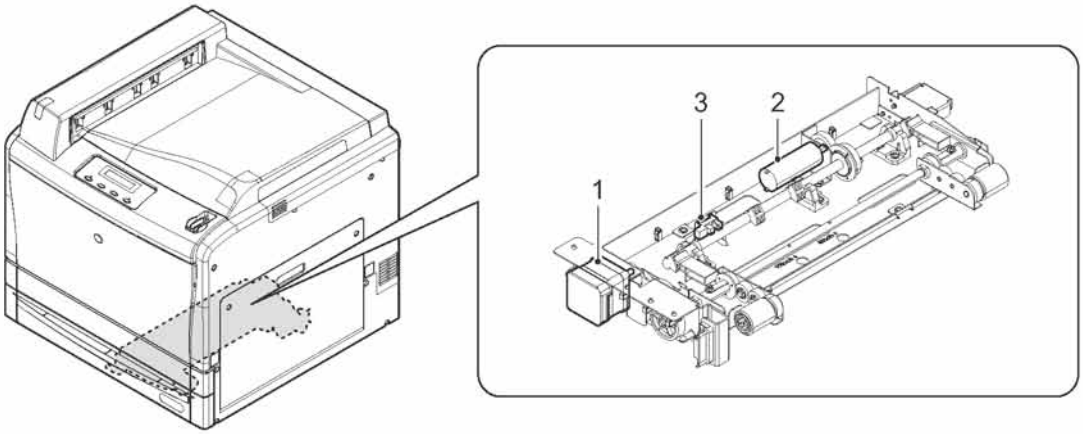
> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the film height detection sensor.

4.2 Pickup Unit

4.2.1 Placing Loading Parts

The pickup unit in the supply unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Pickup transport motor	This motor drives the pickup roller. For more information, see "4.2.3 Replacing Pickup Transport Motor (Page 4-15)".
2	Pickup HP motor	This drive motor saves the pickup roller. For more information, see "4.2.4 Replacing Pickup HP Motor (Page 4-18)".
3	Pickup HP sensor	This photo sensor detects the position where the pickup roller is saved. For more information, see "4.2.5 Replacing Pickup HP Sensor (Page 4-20)".

4.2.2 Removing/Installing Pickup Unit Assembly

This section describes the procedure for removing or installing the pickup unit assembly when replacing the loading parts in the pickup unit assembly.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing load parts.

Work outline

The number of personnel and the estimated work hours required to replace load parts is as follows:

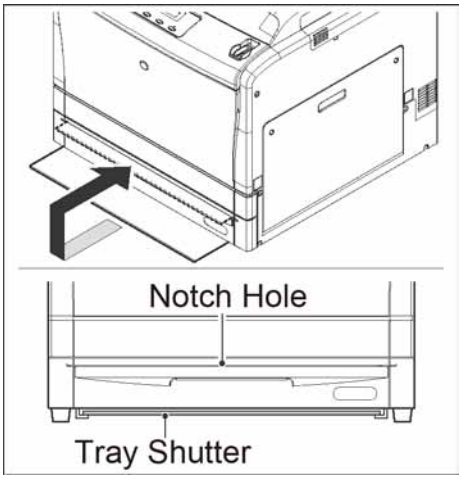
Number of Personnel	Work Hours
1	3 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)

■ Removal Procedure

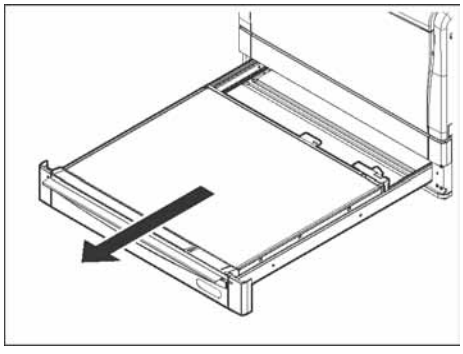


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

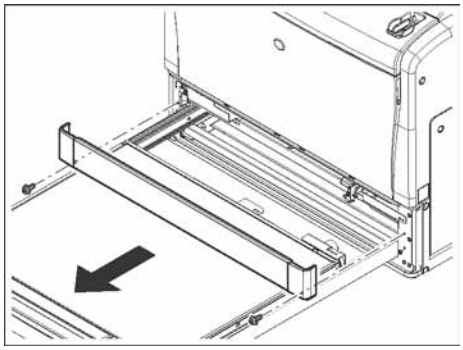
Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



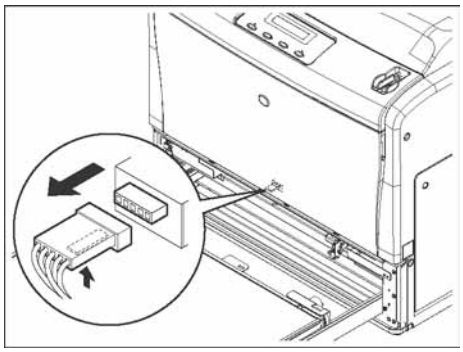
3 Slowly pull out the supply tray fully.

> **Caution** Do not place objects on, lean on, or apply loads on the pulled out supply tray.



4 Remove the lower front cover.

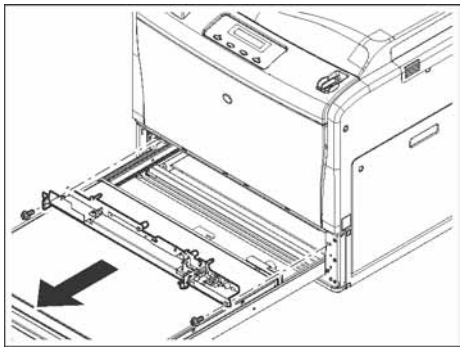
• Two screws (M3×8)



5 Remove the connector (JJ48).

For Lispl-832, remove the Lispl-832 side connector (JJ48).

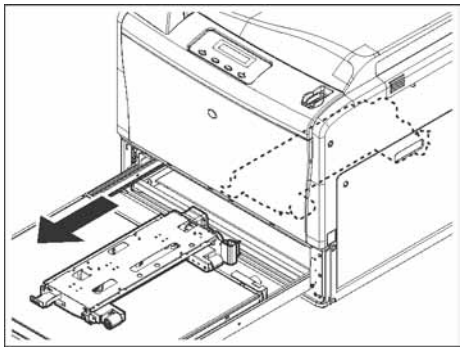
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



6 Remove the light shield unit.

• Two screws (M3×8)

> **Caution** When removing the light shield unit assembly, be careful not to cause the sensor to come into contact with the parts inside the main unit.



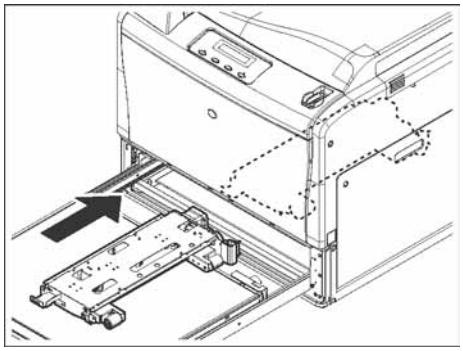
7 Remove the pickup unit assembly.

> **Caution** When removing the pickup unit assembly, be careful not to cause the sensor to come into contact with the parts inside the main unit.

This is the end of the process of removing the pickup unit assembly.

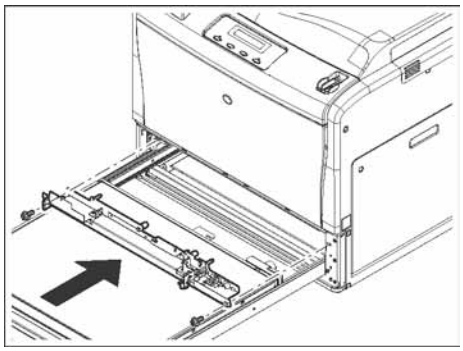
- When replacing the pickup transport motor, go to "4.2.3 Replacing Pickup Transport Motor (Page 4-15)".
- When replacing the pickup HP motor, go to "4.2.4 Replacing Pickup HP Motor (Page 4-18)".
- When replacing the pickup HP sensor, go to "4.2.5 Replacing Pickup HP Sensor (Page 4-20)".

■ Installation Procedure



1 Install the pickup unit assembly.

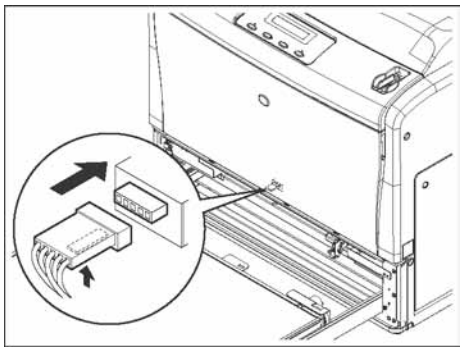
> **Caution** Insert the pickup unit assembly all the way in along the guides while being careful not to cause any damage by coming into contact with the parts inside the main unit.
>
> If the pickup unit assembly is not installed properly, it may be impossible to install the light shield unit assembly.



2 Install the light shield unit assembly.

• Two screws (M3×8)

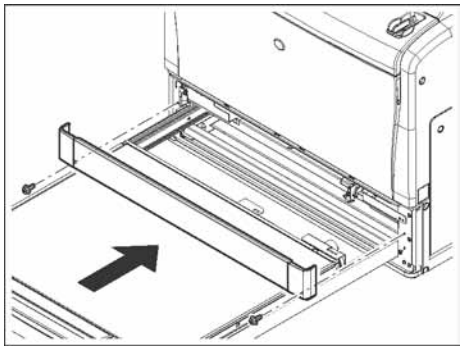
> **Caution** When installing the light shield unit assembly, be careful not to cause the sensor to come into contact with the parts inside the main unit.



3 Connect the connector (JJ48).

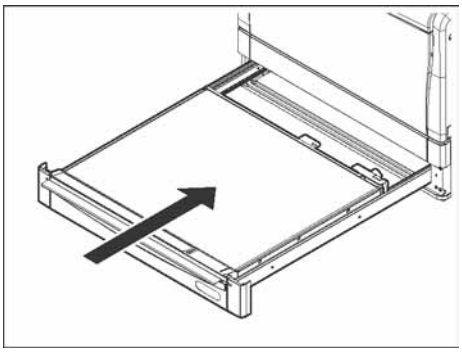
For Lispl-832, remove the Lispl-832 side connector (JJ48).

> **Caution** Be sure to push the connector all the way in when connecting it.
>
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

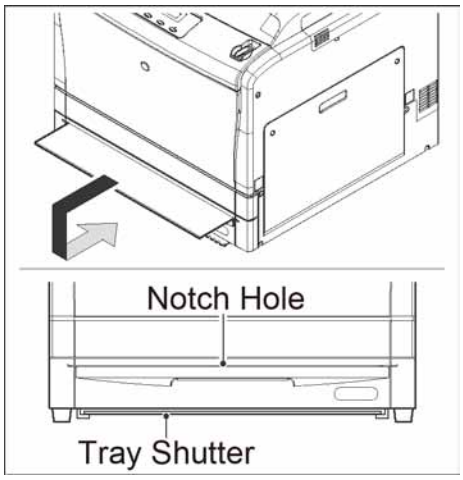


4 Install the lower front cover.

• Two screws (M3×8)



5 Put the supply tray back into the main unit.



6 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the pickup unit assembly.

4.2.3 Replacing Pickup Transport Motor

Replace the motor that drives the pickup roller.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing load parts.

Work outline

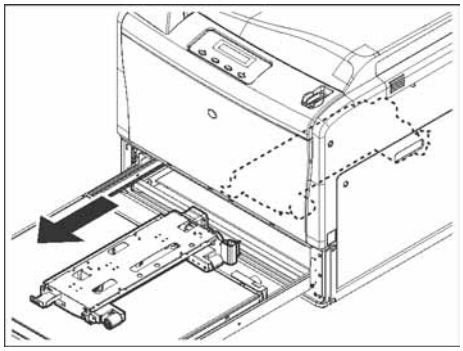
The number of personnel and the estimated work hours required to replace load parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

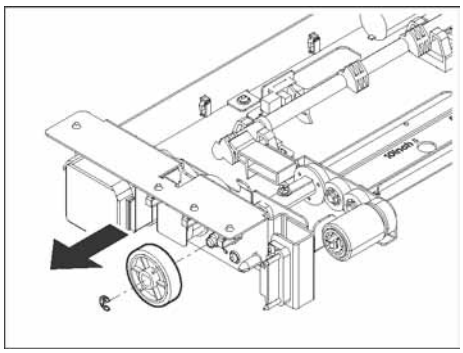
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Replacing Pickup Transport Motor (for replacement)	4	Precision flat blade screwdriver



1 Remove the supply tray, lower front cover, connector (JJ48), light shield unit assembly and pickup unit assembly with reference to "■ Removal Procedure (Page 4-11)" in "4.2.2 Removing/Installing Pickup Unit Assembly".

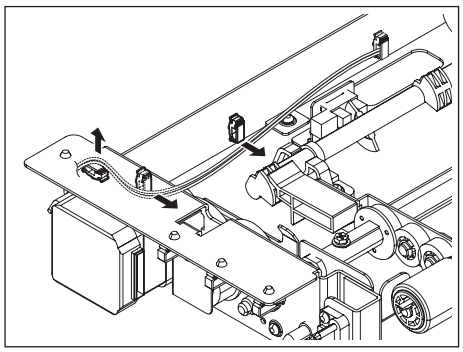
> **Caution** When replacing loading parts, be sure to replace with the tray shutter attached.
> If some of film remains in the tray, the film may be exposed.



2 Remove the E ring with a precision screwdriver.

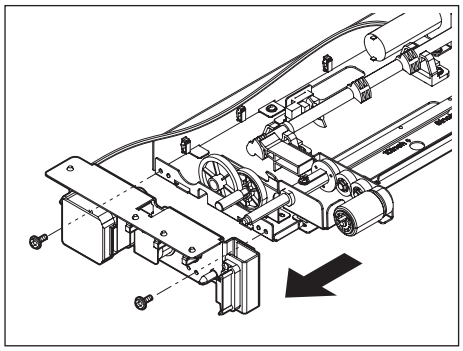
> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

3 Remove the gear.



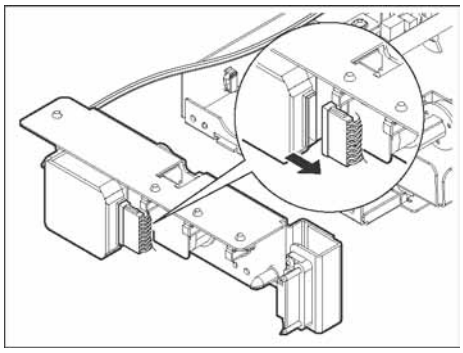
4 Disconnect the wire from the wire saddles.

- Wire saddles in three locations



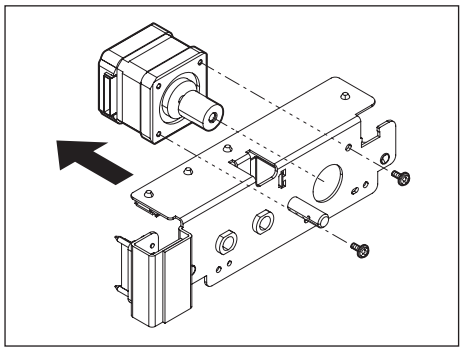
5 Remove the bracket.

- Two screws (M3×6)



6 Remove the connector (JP53).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



7 Remove the pickup transport motor.

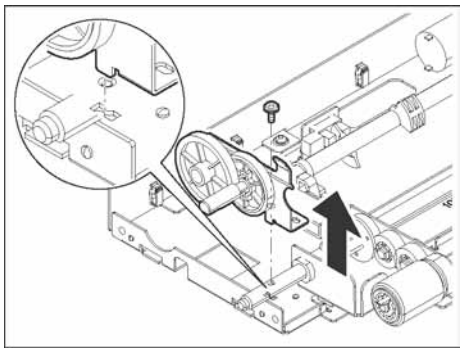
- Two screws (M3×6)

8 Install a new pickup transport motor.

- Two screws (M3×6)

9 Connect the connector (JP53) removed in step 6.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



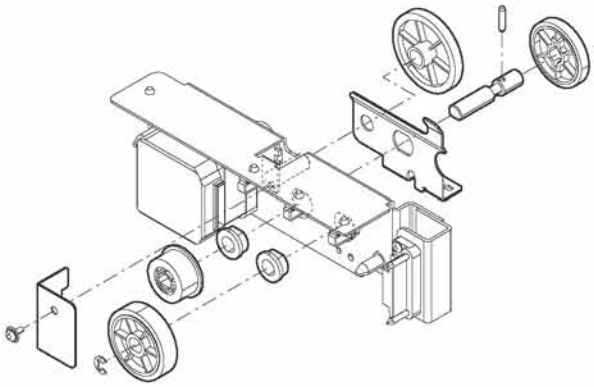
10 Remove the bracket.

- One screw (M3×6)

11 Install the bracket removed in step 5.

• Two screws (M3×6)

> **Caution** When a gear or collar comes off in removing the bracket, install by referring to the figure below. When attaching a gear or collar, attention should be paid to the gear or collar orientation. After installing the gear back, move the neighboring gears with your hand to make sure that it moves in response to the other gears.



12 Install the bracket removed in step 10.

・One screw (M3×6)

13 Secure the wire removed in step 4 with the wire saddle.

• Wire saddles in three locations

14 Install the gear removed in step 3.

15 Install the E ring removed in step 2.

16 Install the pickup unit assembly, light shield unit assembly, connector (JJ48), and lower front cover with reference to "■ Installation Procedure (Page 4-13)" in "4.2.2 Removing/Installing Pickup Unit Assembly".

17 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the pickup transport motor.

4.2.4 Replacing Pickup HP Motor

Replace the drive motor that saves the pickup roller.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing load parts.

Work outline

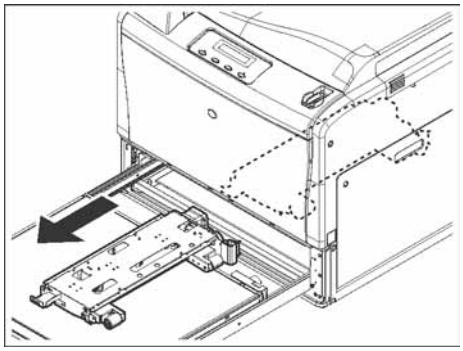
The number of personnel and the estimated work hours required to replace load parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

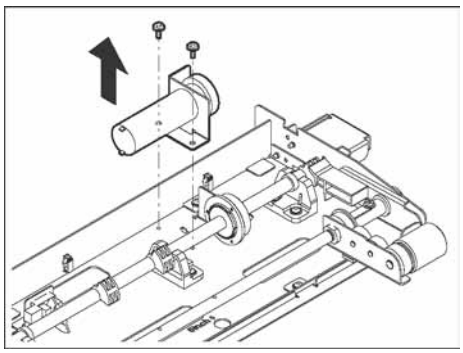
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Pickup HP motor (for replacement)		



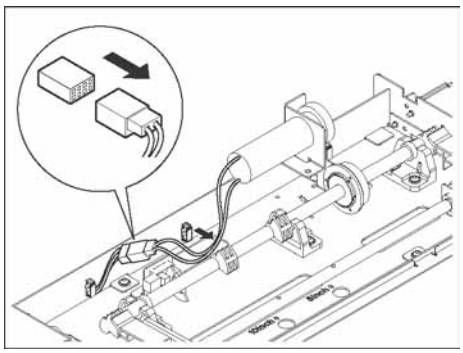
1 Remove the supply tray, lower front cover, connector (JJ48), light shield unit assembly and pickup unit assembly with reference to "■ Removal Procedure (Page 4-11)" in "4.2.2 Removing/Installing Pickup Unit Assembly".

> **Caution** When replacing loading parts, be sure to replace with the tray shutter attached.
> If some of film remains in the tray, the film may be exposed.



2 Remove the bracket.

- Two screws (M3×6)

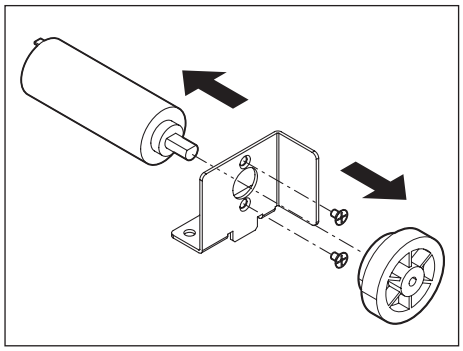


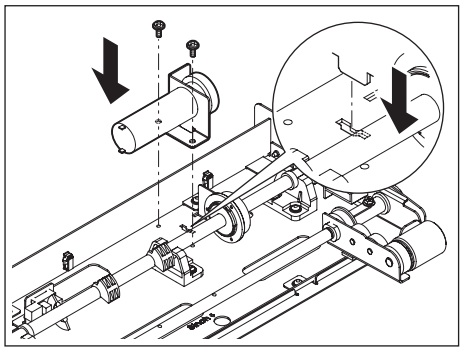
3 Disconnect the wire from the wire saddles.

- Wire saddle in one location

4 Remove the relay connector (JP54).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.





5 Remove the gear.

6 Remove the pickup HP motor.

- Two screws (M3×4)

7 Install a new pickup HP motor.

- Two screws (M3×4)

8 Install the gear removed in step 5.

Push in the gear so that the notch on the gear aligns with the notch on the shaft.

9 Install the bracket removed in step 2.

- Two screws (M3×6)

You can install it in the correct position by inserting the notch on the bracket into the slot in the installation position.

10 Connect the relay connector (JP54) removed in step 4.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

11 Secure the wire removed in step 3 with the wire saddle.

- Wire saddle in one location

12 Install the pickup unit assembly, light shield unit assembly, connector (JJ48), and lower front cover with reference to "■ Installation Procedure (Page 4-13)" in "4.2.2 Removing/Installing Pickup Unit Assembly".

13 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the pickup HP motor.

4.2.5 Replacing Pickup HP Sensor

Replace the photo sensor that detects when the pickup roller is in its Home position.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing load parts.

Work outline

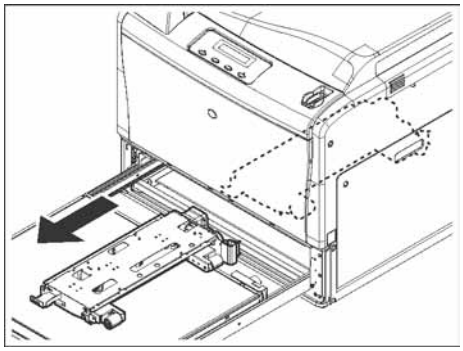
The number of personnel and the estimated work hours required to replace load parts is as follows:

Number of personnel	Work Hours
1	5 minutes

Requirements

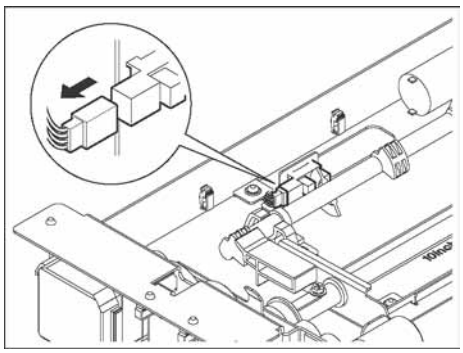
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



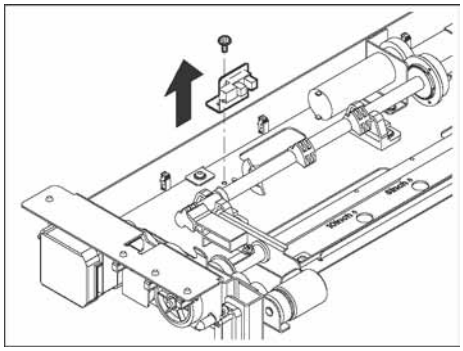
1 Remove the supply tray, lower front cover, connector (JJ48), light shield unit assembly and pickup unit assembly with reference to "■ Removal Procedure (Page 4-11)" in "4.2.2 Removing/Installing Pickup Unit Assembly".

> **Caution** When replacing loading parts, be sure to replace with the tray shutter attached.
> If some of film remains in the tray, the film may be exposed.



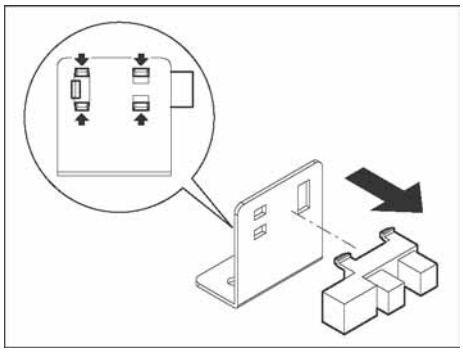
2 Remove the connector (JP31).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



3 Remove the bracket.

- One screw (M3×6)



4 Push the tab on the back of the sensor inward and remove the photo sensor.

5 Insert a new photo sensor in the mounting hole.

6 Install the bracket removed in step 3.

• One screw (M3×6)

Fix so that the positioning hole in the bracket aligns with the emboss on the mating part.

7 Connect the connector (JP31) removed in step 2.

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

8 Install the pickup unit assembly, light shield unit assembly, connector (JJ48), and lower front cover with reference to "■ Installation Procedure (Page 4-13)" in "4.2.2 Removing/Installing Pickup Unit Assembly".

9 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the pickup HP sensor.

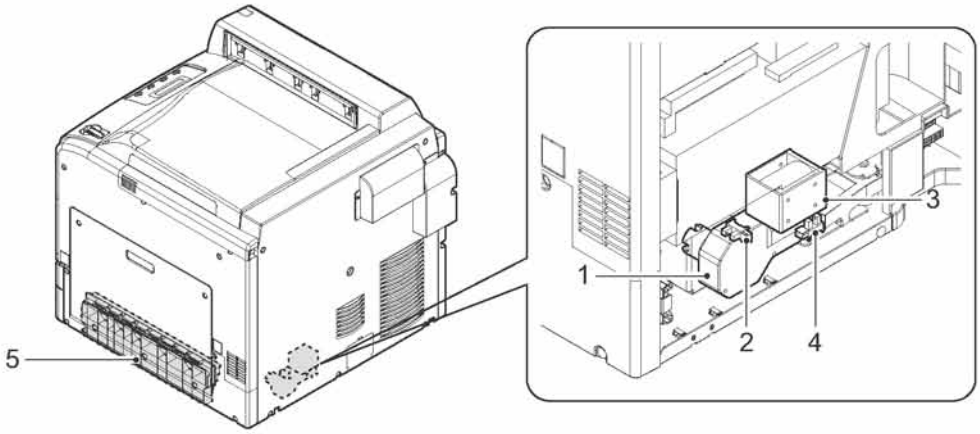
Chapter 5 Replacing Tray Unit Loading Parts

This chapter describes how to replace loading parts in the tray unit when they fail and how to adjust after replacing the loading parts.

5.1 Placing Loading Parts 5-2
5.2 Replacing Supply Elevating Motor 5-3
5.3 Replacing Elevating Plate HP Sensor.....5-6
5.4 Replacing Tray Lock Solenoid 5-10
5.5 Replacing Tray Detection Sensor 5-15
5.6 Replacing Outlet Light Shield Unit Assembly...5-20

5.1 Placing Loading Parts

The tray unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Supply elevating motor	This motor drives the elevating plate that moves up when transporting film. For more information, see "5.2 Replacing Supply Elevating Motor (Page 5-3)".
2	Elevating plate HP sensor	This photo sensor detects the position (Home Position) when the elevating plate is lowered. For more information, see "5.3 Replacing Elevating Plate HP Sensor (Page 5-6)".
3	Tray lock solenoid	This solenoid valve locks or unlocks the supply tray in DRYPRO 832. For more information, see "5.4 Replacing Tray Lock Solenoid (Page 5-10)".
4	Tray detection sensor	This photo sensor detects presence or absence of the supply tray. For more information, see "5.5 Replacing Tray Detection Sensor (Page 5-15)".
5	Outlet light shield unit assembly	This guide unit assembly is for shading the film inside the supply tray when the right cover is opened. For more information, see "5.6 Replacing Outlet Light Shield Unit Assembly (Page 5-20)".

5.2 Replacing Supply Elevating Motor

Replace the motor that drives the elevating plate that moves up when transporting film.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

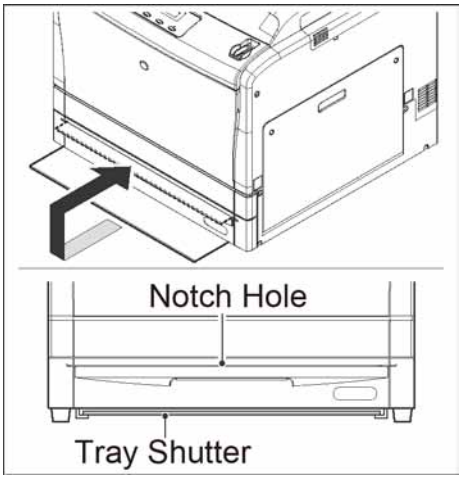
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Supply elevating motor (for replacement)		



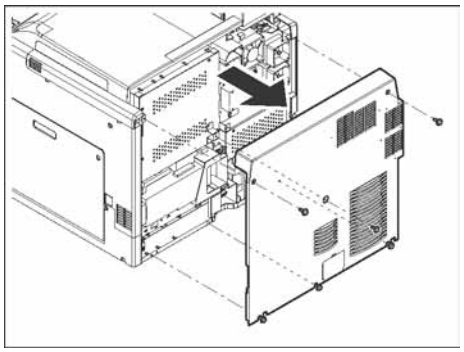
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

> **Note**
> - To replace the tray unit supply elevating motor, proceed to step 3.
> - To replace the Lispl-832 supply elevating motor, proceed to step 4.

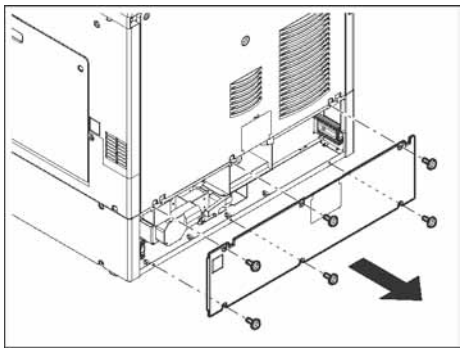


3 Remove the rear cover.

• Six screws (M4×8)

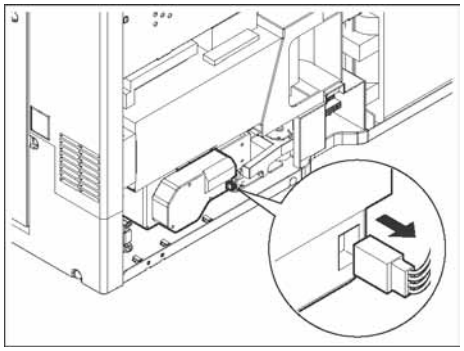
> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three.

Proceed to step 5.



4 Remove the rear cover of Lispl-832.

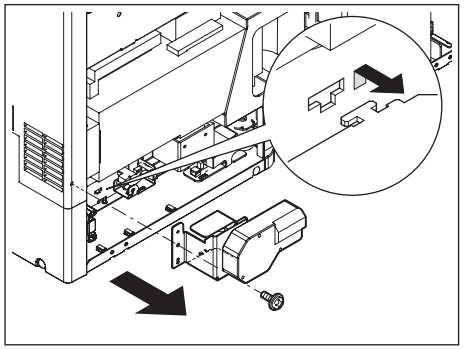
・Six screws (M4×8)



5 Remove the connector.

- To replace the tray unit supply elevating motor, remove the connector (JP56).
- To replace the Lispl-832 supply elevating motor, remove the connector (JP64).

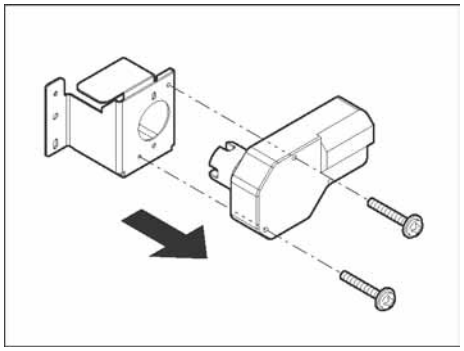
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



6 Remove the supply elevating motor holding bracket together with the motor.

• One screw (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.



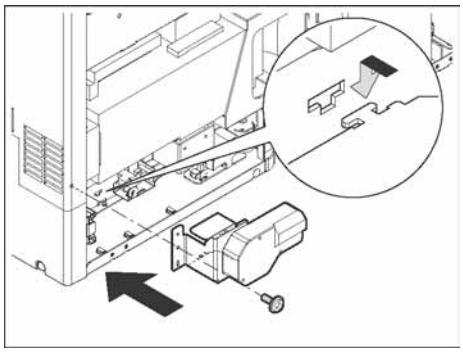
7 Remove the supply elevating motor.

• Two screws (M3×25)

8 Install a new supply elevating motor.

• Two screws (M3×25)

Align the emboss on the back of the motor with the emboss on the bracket to determine the installation position.



9 Install the bracket removed in step 6.

• One screw (M3×6)

Hook the notch of the bracket onto the notch of the main unit to attach.

10 Connect the connector removed in step 5.

- If the tray unit supply elevating motor has been replaced, connect the connector (JP56).
- If the Lispl-832 supply elevating motor has been replaced, connect the connector (JP64).

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

11 Install the rear cover or the back cover.

- When replacing the tray unit supply elevating motor, refer to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover" and then attach the rear cover.
- When replacing the Lispl-832 supply elevating motor, refer to "■ Installation Procedure (Page 3-21)" in "3.3.5 Removing/Installing Rear Cover (Lispl-832)" and then attach the back cover.

12 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the supply elevating motor.

5.3 Replacing Elevating Plate HP Sensor

Replace the photo sensor detects the position (Home Position) where the elevating plate is lowered.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

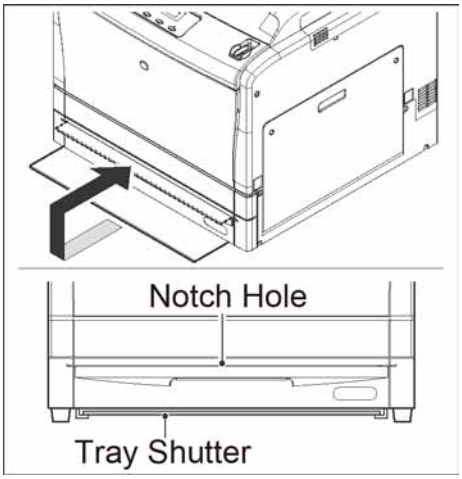
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



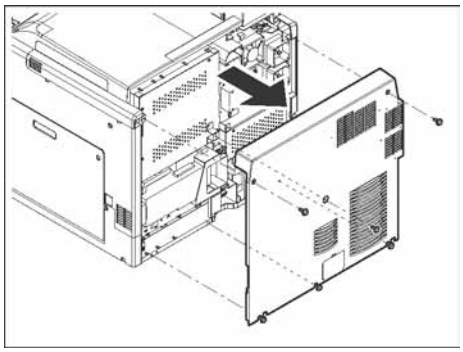
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

> **Note**
> - To replace the tray unit supply elevating motor, proceed to step 3.
> - To replace the Lispl-832 supply elevating motor, proceed to step 4.

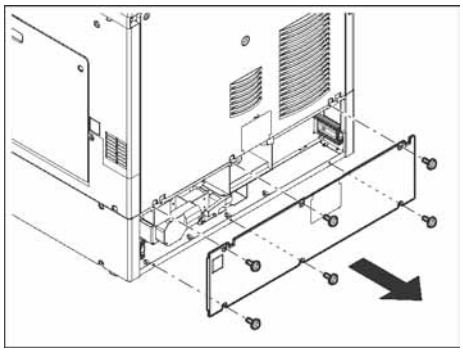


3 Remove the rear cover.

• Six screws (M4×8)

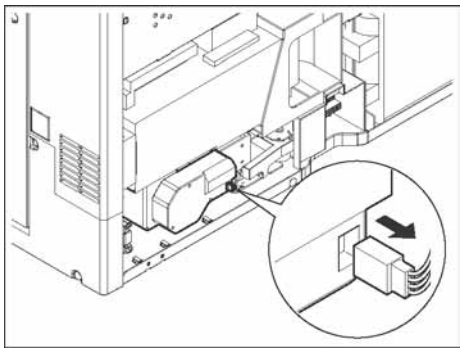
> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three.

Proceed to step 5.



4 Remove the rear cover of Lispl-832.

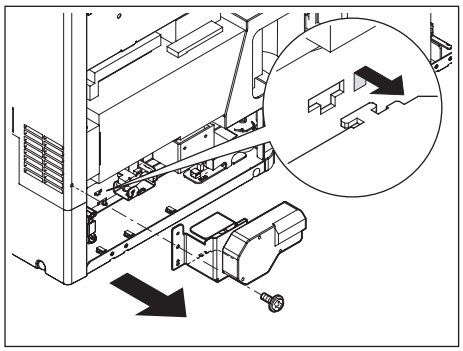
・Six screws (M4×8)



5 Remove the connector.

- To replace the tray unit elevating plate HP sensor, remove the connector (JP56).
- To replace the Lispl-832 elevating plate HP sensor, remove the connector (JP64).

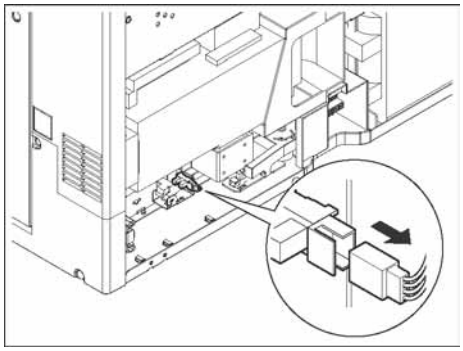
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



6 Remove the supply elevating motor holding bracket together with the motor.

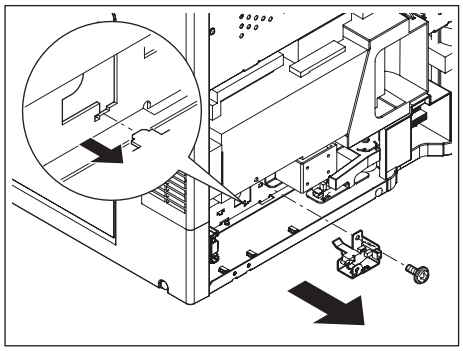
• One screw (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.



7 Remove the connector (JP42).

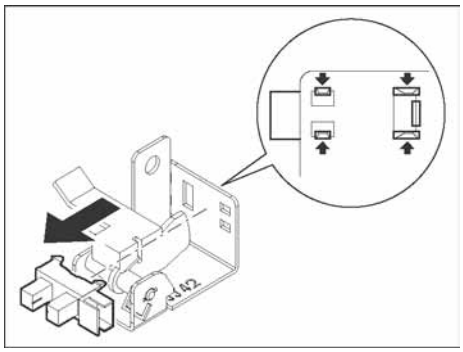
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



8 Remove the bracket.

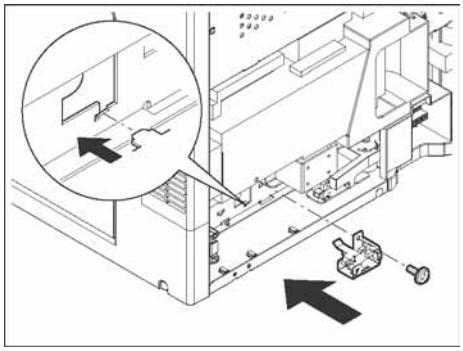
• One screw (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.



9 Push the tab on the back of the sensor inward and remove the photo sensor.

10 Insert a new photo sensor in the mounting hole.



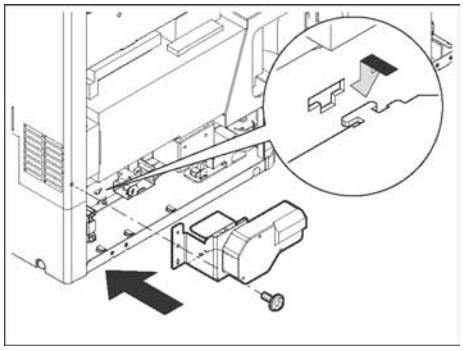
11 Install the bracket removed in step 8.

• One screw (M3×6)

Insert the bracket into the notch of the main unit, and then remove after shifting slightly to the left.

12 Connect the connector (JP42) removed in step 7.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



13 Install the bracket removed in step 6.

• One screw (M3×6)

Hook the notch of the bracket onto the notch of the main unit to attach.

14 Connect the connector removed in step 5.

- If the tray unit elevating plate HP sensor has been replaced, connect the connector (JP56).
- If the Lispl-832 elevating plate HP sensor has been replaced, connect the connector (JP64).

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

15 Install the rear cover or the back cover.

- If the tray unit elevating plate HP sensor has been replaced, refer to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover" and then attach the rear cover.
- If the Lispl-832 elevating plate HP sensor has been replaced, refer to "■ Installation Procedure (Page 3-21)" in "3.3.5 Removing/Installing Rear Cover (Lispl-832)" and then attach the back cover.

16 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the elevating plate HP sensor.

5.4 Replacing Tray Lock Solenoid

Replace the solenoid valve that locks or unlocks the supply tray.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

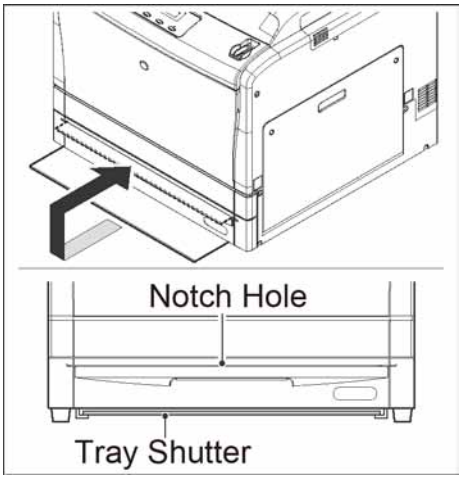
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Replacing Tray Lock Solenoid (for replacement)		



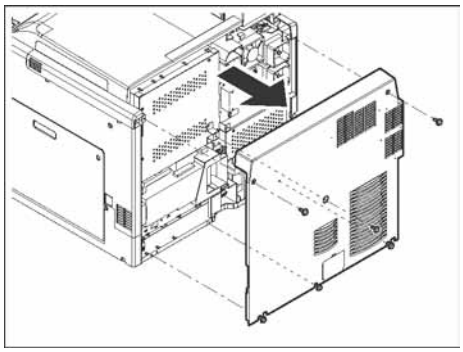
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

> **Note**
> - To replace the tray unit tray lock solenoid, proceed to step 3.
> - To replace the Lispl-832 tray lock solenoid, proceed to step 4.

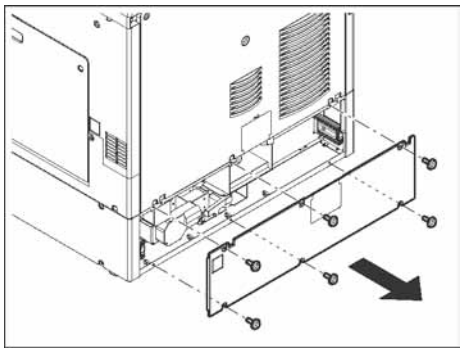


3 Remove the rear cover.

• Six screws (M4×8)

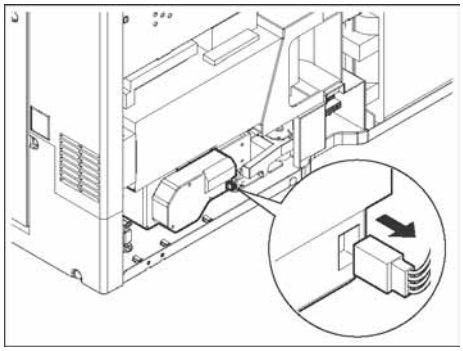
> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three.

Proceed to step 5.



4 Remove the rear cover of Lispl-832.

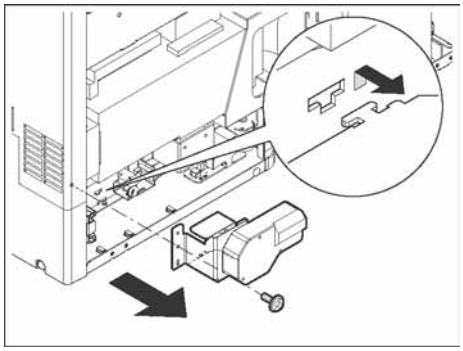
・Six screws (M4×8)



5 Remove the connector.

- To replace the tray unit tray lock solenoid, remove the connector (JP56).
- To replace the Lispl-832 tray lock solenoid, remove the connector (JP64).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

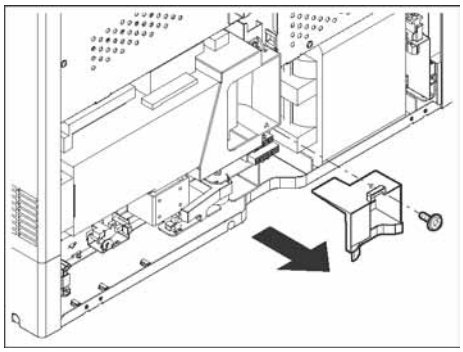


6 Remove the supply elevating motor holding bracket together with the motor.

• One screw (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.

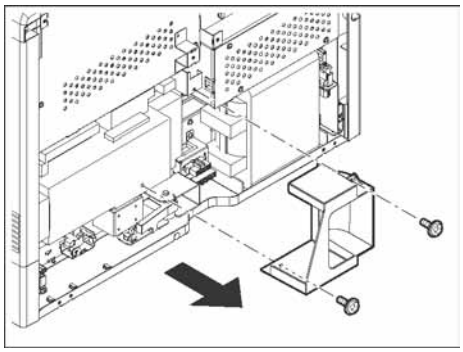
> **Note**
> - To replace the tray unit tray lock solenoid, proceed to step 7.
> - To replace the Lispl-832 tray lock solenoid, proceed to step 9.



7 Remove the connector cover.

• One screw (M3×6)

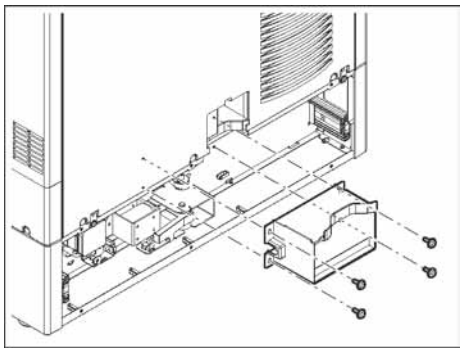
> **Note** If the Lispl-832 is connected, remove the connector cover after removing the connector (JP16, JP 26).



8 Remove the cover.

・Two screws (M3×6)

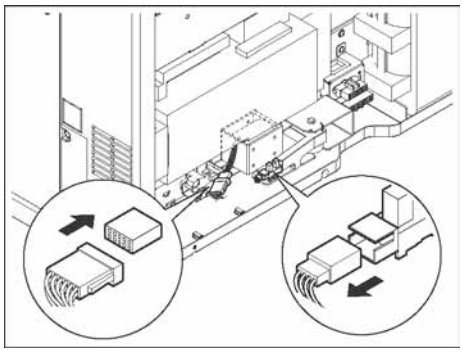
Proceed to step 10.



9 Remove the Lispl-832 connector cover.

・Four screws (M3×6)

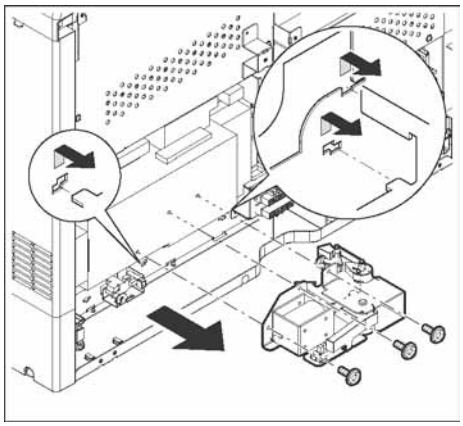
> **Note** Remove the connectors (JP16, JP26) before removing the connector cover.



10 Remove the connectors.

- To replace the tray unit tray lock solenoid, remove the connector (JP55, JP44).
- To replace the Lispl-832 tray lock solenoid, remove the connector (JP63, JP44).

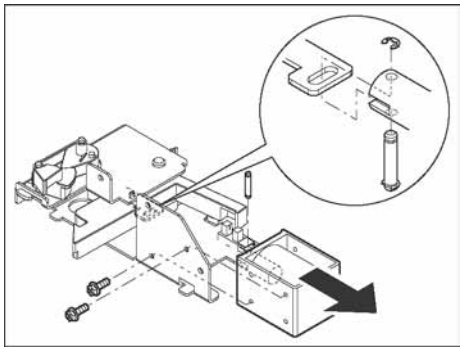
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



11 Remove the tray lock solenoid unit assembly.

- Three screws (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.



12 Remove the E ring with a precision screwdriver, and extract the parallel pin.

> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

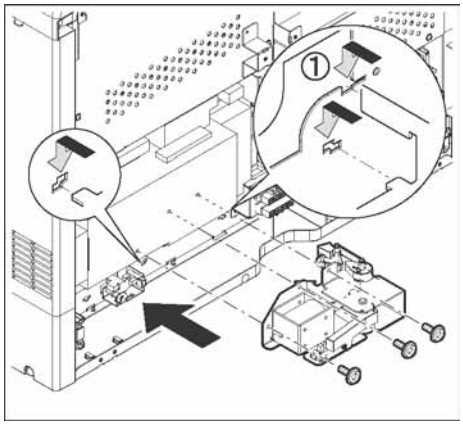
13 Remove the tray lock solenoid.

- Two screws (M3×6)

14 Install a new tray lock solenoid.

- Two screws (M3×6)

15 Insert the parallel pin that you removed in step 12, and install the E ring.



16 Connect the tray lock solenoid unit assembly removed in step 11.

- Three screws (M3×6)

After inserting the bracket notch into the notch groove of the main unit (① in figure on left), align the position of the other notches and attach.

17 Connect the connectors removed in step 10.

- If the tray unit tray lock solenoid has been replaced, connect the connector (JP55, JP44).
- If the Lispl-832 tray lock solenoid has been replaced, connect the connector (JP63, JP44).

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

18 Install the connector cover removed in step 7 or step 9.

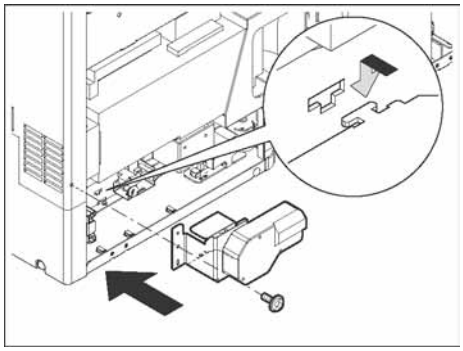
• One screw (M3×6)

> **Note**
> If connecting the Lispl-832, connect connectors (JP16, JP 26).

> **Note**
> • If the tray unit tray lock solenoid has been replaced, proceed to step 19.
> • If the Lispl-832 tray lock solenoid has been replaced, proceed to step 20.

19 Install the cover removed in step 8.

• Two screws (M3×6)



20 Install the bracket removed in step 6.

• One screw (M3×6)

Hook the notch of the bracket onto the notch of the main unit to attach.

21 Connect the connector removed in step 5.

- If the tray unit tray lock solenoid has been replaced, connect the connector (JP56).
- If the Lispl-832 tray lock solenoid has been replaced, connect the connector (JP64).

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

22 Install the rear cover or the back cover.

- If the tray unit tray lock solenoid has been replaced, refer to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover" and attach the rear cover.
- If the Lispl-832 tray lock solenoid has been replaced, refer to "■ Installation Procedure (Page 3-21)" in "3.3.5 Removing/Installing Rear Cover (Lispl-832)" and then attach the back cover.

23 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the tray lock solenoid.

5.5 Replacing Tray Detection Sensor

Replace the photo sensor that detects the presence or absence of the supply tray.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

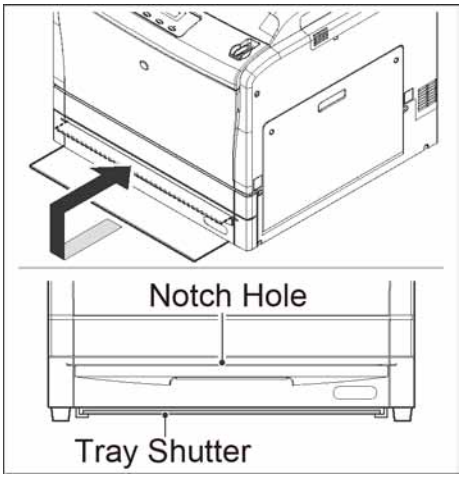
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



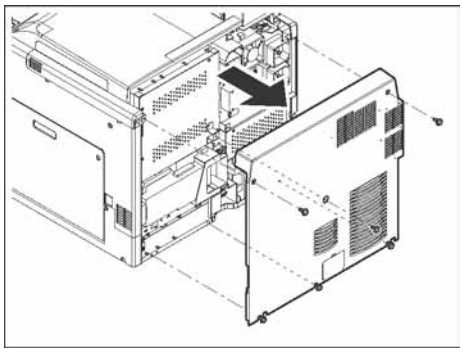
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes the supply tray to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

> **Note**
> - To replace the tray unit tray detection sensor, proceed to step 3.
> - To replace the Lispl-832 tray detection sensor,, proceed to step 4.

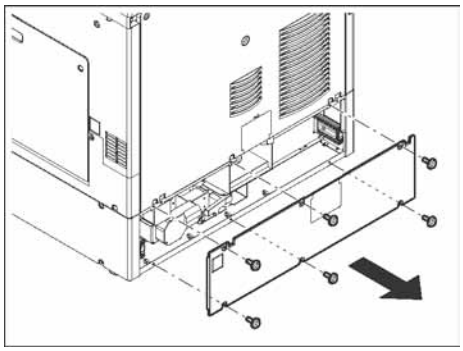


3 Remove the rear cover.

• Six screws (M4×8)

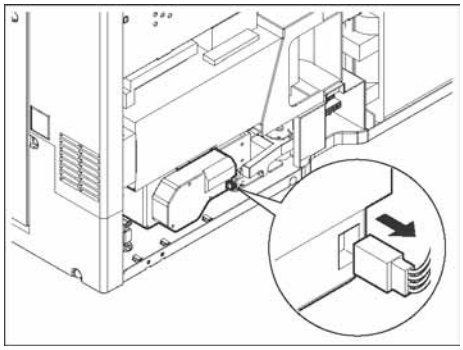
> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three.

Proceed to step 5.



4 Remove the rear cover of Lispl-832.

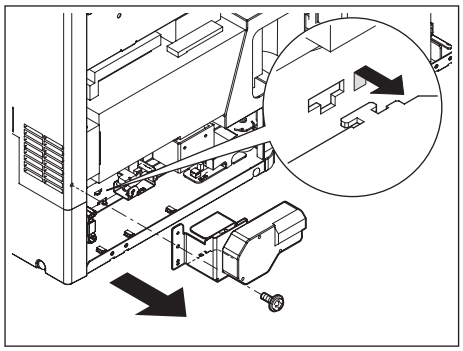
・Six screws (M4×8)



5 Remove the connector.

- To replace the tray unit tray detection sensor, remove the connector (JP56).
- To replace the Lispl-832 tray detection sensor, remove the connector (JP64).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

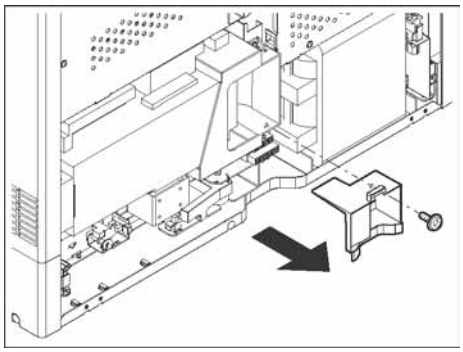


6 Remove the supply elevating motor holding bracket together with the motor.

• One screw (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.

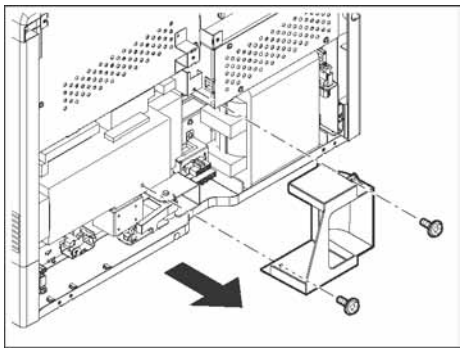
> **Note**
> - To replace the tray unit tray detection sensor, proceed to step 7.
> - To replace the Lispl-832 tray detection sensor, proceed to step 9.



7 Remove the connector cover.

• One screw (M3×6)

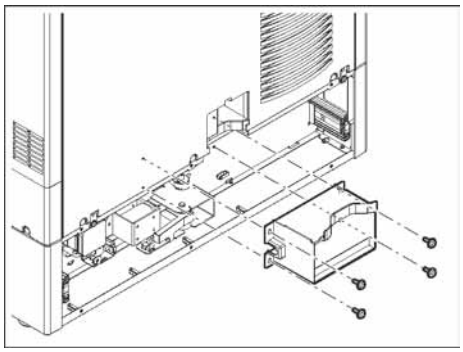
> **Note** If the Lispl-832 is connected, remove the connector cover after removing the connector (JP16, JP 26).



8 Remove the cover.

・Four screws (M3×6)

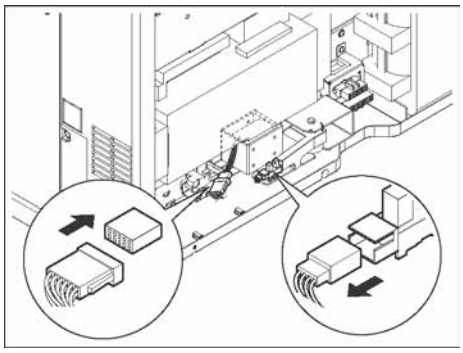
Proceed to step 10.



9 Remove the Lispl-832 connector cover.

・Four screws (M3×6)

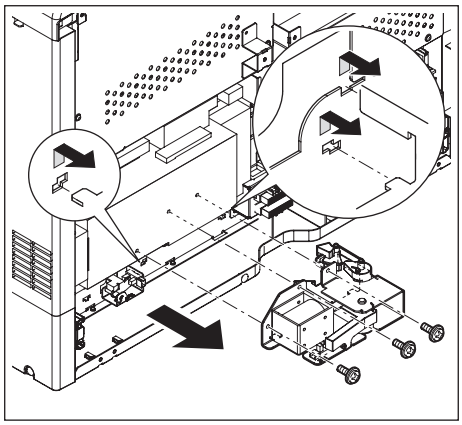
> **Note** Remove the connectors (JP16, JP26) before removing the connector cover.



10 Remove the connectors.

- To replace the tray unit tray detection sensor, remove the connector (JP55, JP44).
- To replace the Lispl-832 tray detection sensor, remove the connector (JP63, JP44).

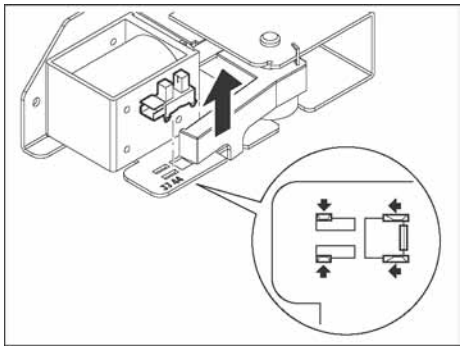
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



11 Remove the tray lock solenoid unit assembly.

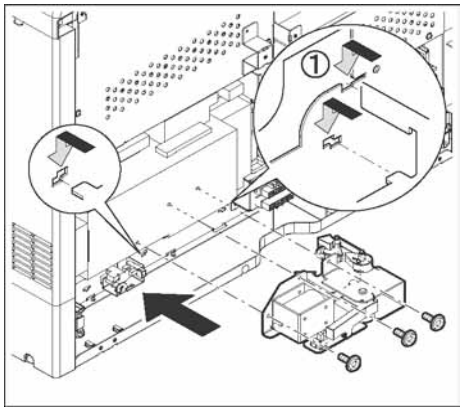
• Three screws (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.



12 Push the tab on the back of the sensor inward and remove the photo sensor.

13 Insert a new photo sensor in the mounting hole.



14 Install the tray lock solenoid unit assembly removed in step 11.

• Three screws (M3×6)

After inserting the bracket notch into the notch groove of the main unit (① in figure on left), align the position of the other notches and attach.

15 Connect the connectors removed in step 10.

- If the tray unit tray detection sensor has been replaced, connect the connector (JP55, JP44).
- If the Lispl-832 tray detection sensor has been replaced, connect the connector (JP63, JP44).

Caution

Be sure to push the connector all the way in when connecting it.
If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

16 Install the connector cover removed in step 7 or step 9.

• One screw (M3×6)

Note

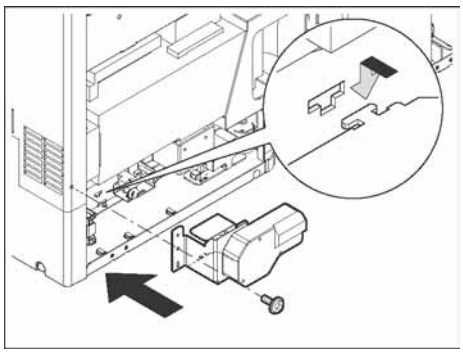
If connecting the Lispl-832, connect connectors (JP16, JP 26).

Note

- If the tray unit tray detection sensor has been replaced, proceed to step 17.
- If the Lispl-832 tray detection sensor has been replaced, proceed to step 18.

17 Install the cover removed in step 8.

• Two screws (M3×6)



18 Install the bracket removed in step 6.

• One screw (M3×6)

Hook the notch of the bracket onto the notch of the main unit to attach.

19 Connect the connector removed in step 5.

- If the tray unit tray detection sensor has been replaced, connect the connectors (JP56).
- If the Lispl-832 tray detection sensor has been replaced, connect the connector (JP64).

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

20 Install the rear cover.

- If the tray unit tray detection sensor has been replaced, refer to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover" and attach the rear cover.
- If the Lispl-832 tray detection sensor has been replaced, refer to "■ Installation Procedure (Page 3-21)" in "3.3.5 Removing/Installing Rear Cover (Lispl-832)" and then attach the back cover.

21 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the tray detection sensor.

5.6 Replacing Outlet Light Shield Unit Assembly

Replace the outlet light shield unit assembly that is used for shading the film inside the supply tray when the right cover is opened.

Caution

- Be sure to turn OFF power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- If the Lispl-832 is installed, start the procedure from step 7 after referring to "■ Removal Procedure (Page 6-9)" in "6.4.1 Removing/Installing Elevating Transport Unit" and removing the elevating transport unit.

Work outline

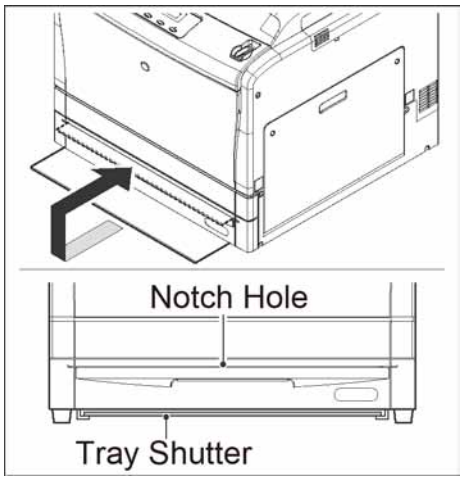
The number of personnel and the estimated work hours required to replace loading parts is as follows.

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Outlet light shield unit assembly (for replacement)		



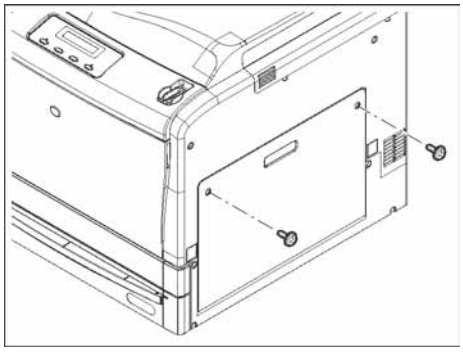
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

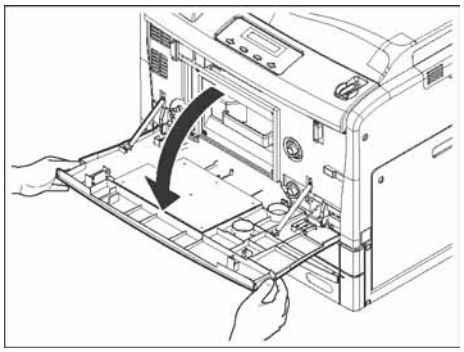
Caution

- When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
- Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
- If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the screws from the right cover.

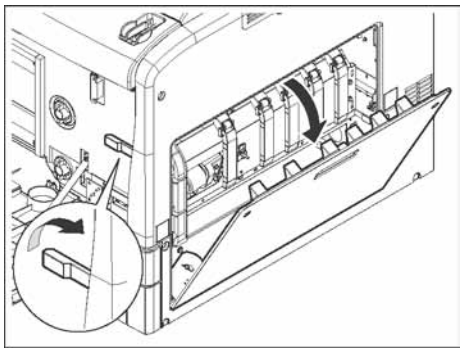
・Two screws (M4×8)



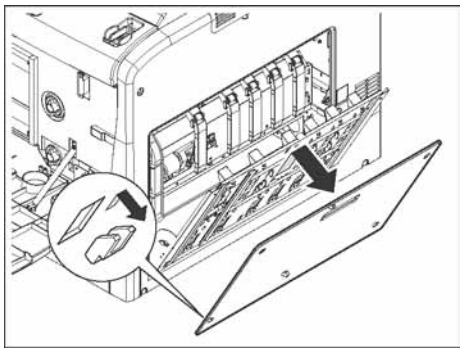
4 Open the front cover.

The front cover will open by pulling the upper part of both sides.

> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the front cover to break.

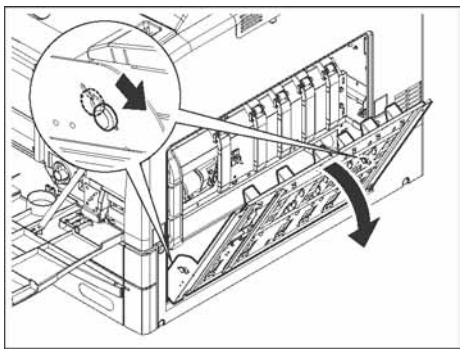


5 Open the right cover by rotating the lever B in the direction of an arrow.



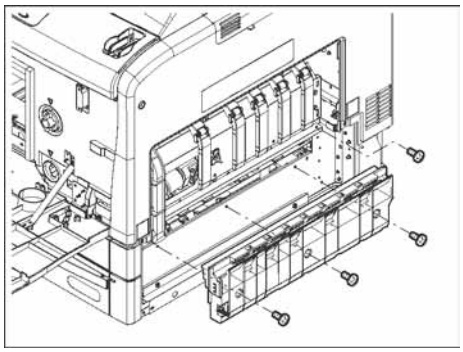
6 Remove the right cover from the external guide unit assembly.

Slide the right cover upward, so that the tabs (four places) inside the right cover are detached from the external guide assembly, and then remove the cover.



7 Open the external guide unit assembly after removing the stop bands at two places.

> **Note**
> - If the Lispl-832 is not installed, continue to step 8.
> - If the Lispl-832 is installed, continue directly to step 10.



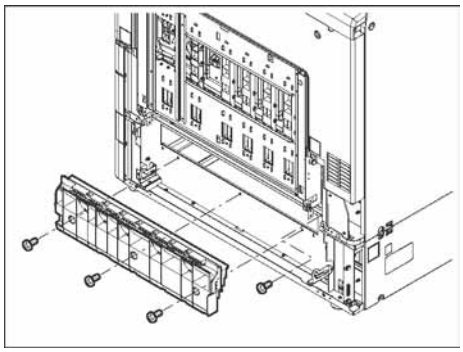
8 Remove the outlet light shield unit assembly.

・Four screws

9 Install the new outlet light shield unit assembly.

・Four screws

Continue to step 13.



10 Remove the outlet light shield unit assembly.

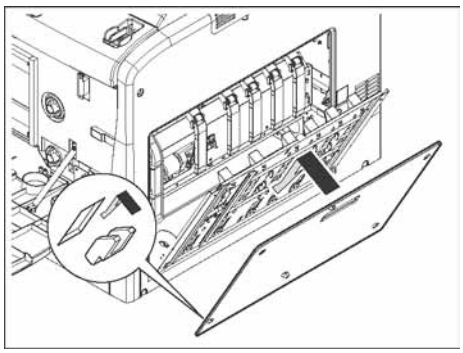
・Four screws

11 Install the new outlet light shield unit assembly.

・Four screws

12 Install the elevating transport unit with reference to "■ Installation Procedure (Page 6-11)" in "6.4.1 Removing/Installing Elevating Transport Unit".

13 Install the guide unit assembly by hooking the stop bands from step 7 in two locations on the external guide unit assembly.



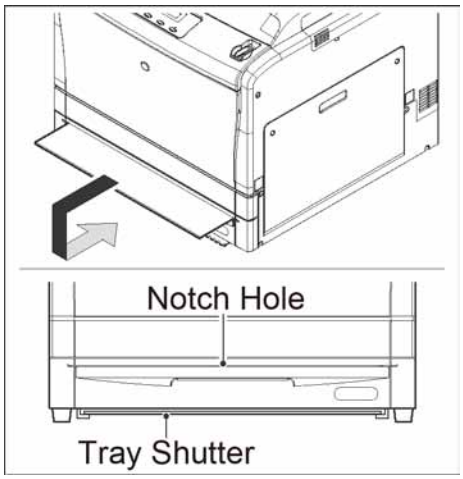
14 Install the right cover.

Hook the tabs (four locations) on the side of the right cover onto the external guide assembly, and slide the right cover downward to install.

15 Close the right and front covers.

16 Fit the right cover with removed screws in step 3.

・Two screws（M4×8）



17 Put the supply tray back into the main unit.

18 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the outlet light shield unit assembly.

Chapter 6 Replacing Lispl-832 (Optional) Loading Parts

This chapter describes how to replace loading parts in Lispl-832 (optional) when they fail and how to adjust after replacing the loading parts.

6.1 Light Shield Unit....6-2
6.1.1 Placing Loading Parts....6-2
6.2 Pickup Unit....6-3
6.2.1 Placing Loading Parts....6-3
6.3 Supply Unit....6-4
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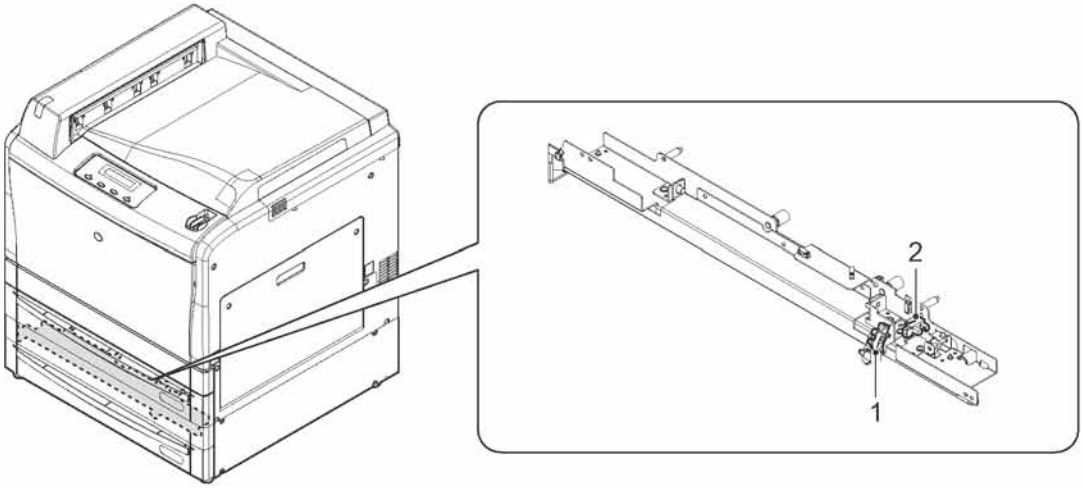
6.3.2 Replacing Elevating Transport Motor....6-5
6.4 Elevating Transport Unit....6-8
6.4.1 Removing/Installing Elevating Transport Unit....6-9
6.4.2 Replacing Elevating Transport Nip Opening/Closing Motor....6-13
6.4.3 Replacing Elevating Transport Nip Opening/Closing HP Sensor....6-15
6.4.4 Replacing Supply Outlet Sensor....6-18

6.1 Light Shield Unit

6.1.1 Placing Loading Parts

The Lispl-832 light shield unit includes the following loading parts.

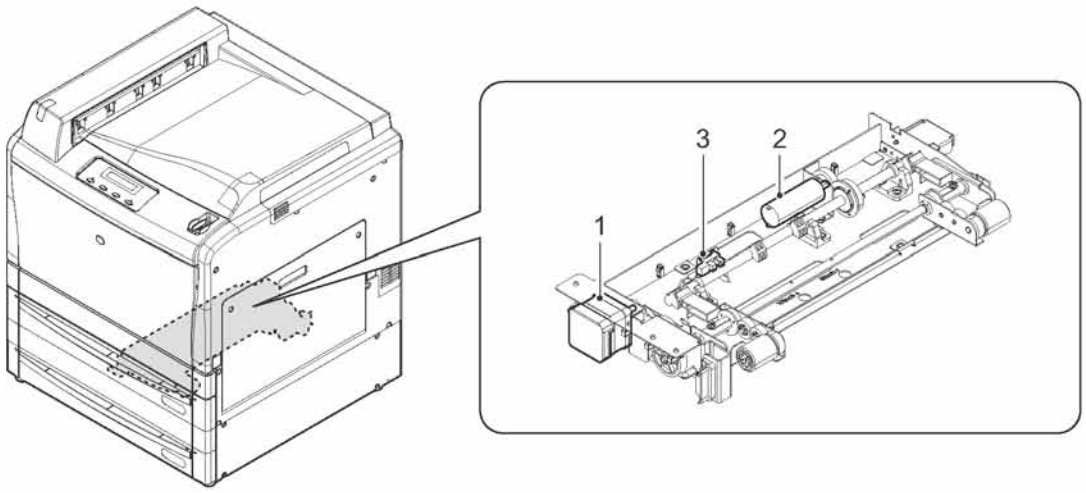


No.	Name	Functions and Reference Sections
1	Barrier bag detection sensor	This photo sensor detects the presence or absence of the barrier bag. Use the same replacement procedure as that for replacing the supply unit. For more information, see “4.1.3 Replacing Barrier Bag Detection Sensor (Page 4-6)”.
2	Film height detection sensor	This photo sensor detects the height of film loaded in the supply tray. Use the same replacement procedure as that for replacing the supply unit. For more information, see “4.1.4 Replacing Film Height Detection Sensor (Page 4-8)”.

6.2 Pickup Unit

6.2.1 Placing Loading Parts

The Lispl-832 pickup unit includes the following loading parts.

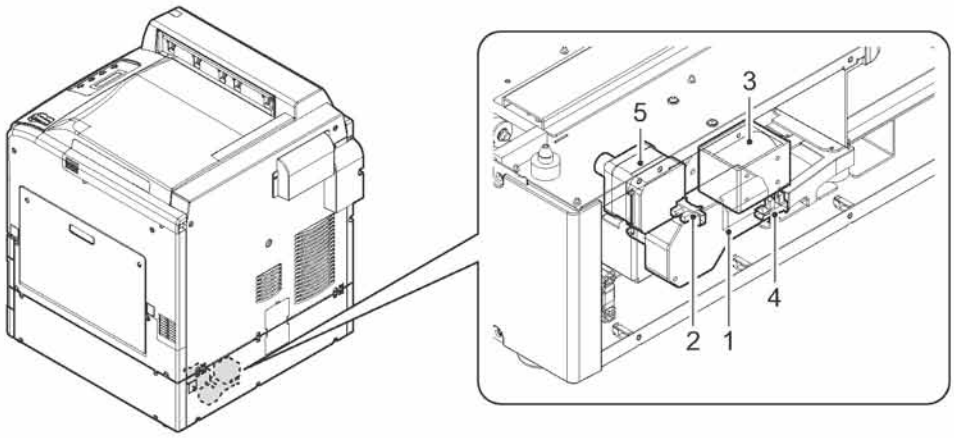


No.	Name	Functions and Reference Sections
1	Pickup transport motor	This motor drives the pickup roller. Use the same replacement procedure as that for replacing the supply unit. For more information, see "4.2.3 Replacing Pickup Transport Motor (Page 4-15)".
2	Pickup and Save motor	This drive motor saves the pickup roller. Use the same replacement procedure as that for replacing the supply unit. For more information, see "4.2.4 Replacing Pickup HP Motor (Page 4-18)".
3	Pickup and Save sensor	This photo sensor detects the position where the pickup roller is saved. Use the same replacement procedure as that for replacing the supply unit. For more information, see "4.2.5 Replacing Pickup HP Sensor (Page 4-20)".

6.3 Supply Unit

6.3.1 Placing Loading Parts

The Lispl-832 supply unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Supply elevating motor	This motor drives the elevating plate that moves up when transporting film. Use the same replacement procedure as that for replacing the tray unit. For more information, see "5.2 Replacing Supply Elevating Motor (Page 5-3)".
2	Elevating plate HP sensor	This photo sensor detects the position (Home Position) when the elevating plate is lowered. Use the same replacement procedure as that for replacing the tray unit. For more information, see "5.3 Replacing Elevating Plate HP Sensor (Page 5-6)".
3	Tray lock solenoid	This solenoid valve locks or unlocks the supply tray in DRYPRO 832. Use the same replacement procedure as that for replacing the tray unit. For more information, see "5.4 Replacing Tray Lock Solenoid (Page 5-10)".
4	Tray detection sensor	This photo sensor detects presence or absence of the supply tray. Use the same replacement procedure as that for replacing the tray unit. For more information, see "5.5 Replacing Tray Detection Sensor (Page 5-15)".
5	Elevating transport motor	This motor transports film from the Lispl-832. For more information, see "6.3.2 Replacing Elevating Transport Motor (Page 6-5)".

6.3.2 Replacing Elevating Transport Motor

Replace the motor that transports film from the Lispl-832 tray.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

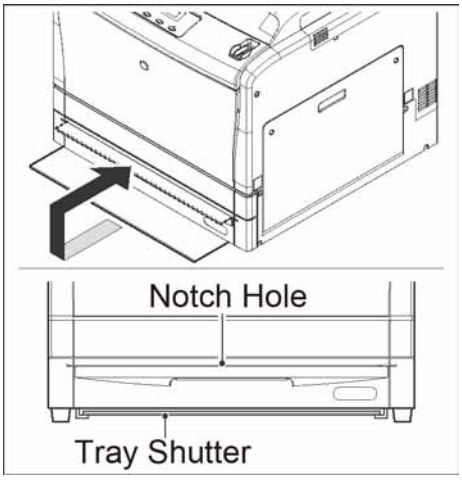
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Elevating transport motor (for replacement)	4	Precision flat blade screwdriver

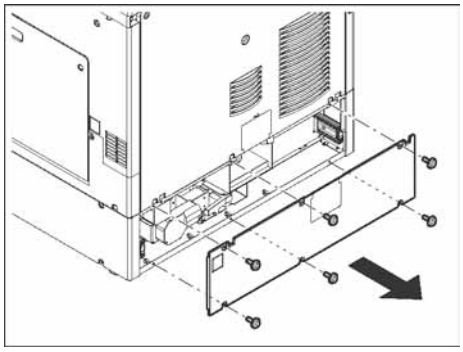


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

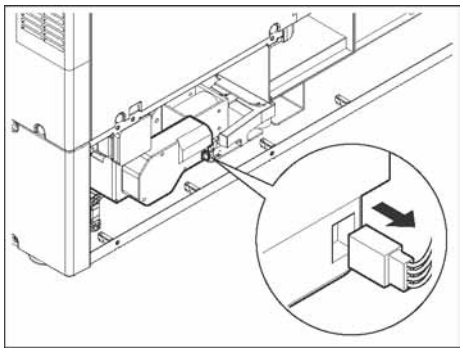
Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



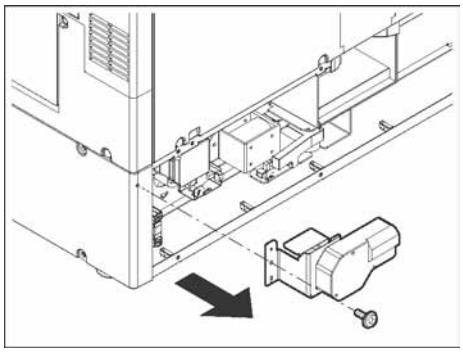
3 Remove the rear cover.

• Six screws (M4×8)



4 Remove the connector (JP64).

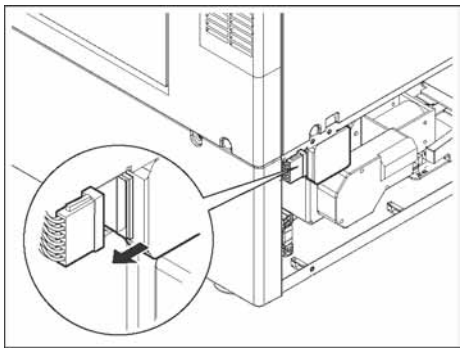
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



5 Remove the supply elevating motor holding bracket together with the motor.

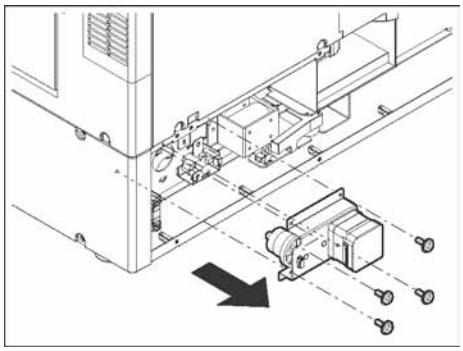
・One screw (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.



6 Remove the connector (JP65).

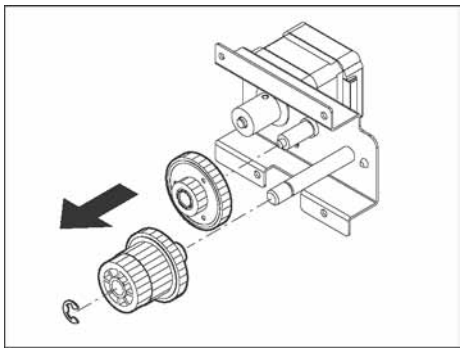
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



7 Remove the bracket.

• Four screws (M3×6)

The bracket is hooked on the notch in the main unit, but can be unhooked by sliding slightly to the right and pulling back.

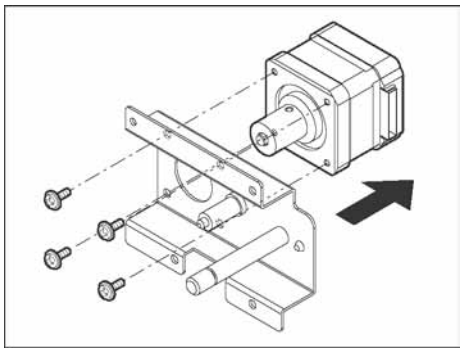


8 Remove the E ring with a precision screwdriver.

> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

9 Remove the gear.

• Two gears



10 Remove the elevating transport motor.

• Four screws (M3×6)

11 Install a new elevating transport motor.

• Four screws (M3×6)

12 Install the gears removed in step 9.

• Two gears

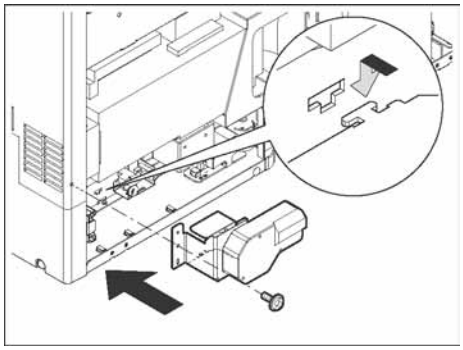
13 Install the E ring removed in step 8.

> **Caution** When attaching gears, attention should be paid to the gear orientation. After assembly, move the peripheral gears by hand and confirm that the assembled gear moves in conjunction.

14 Install the bracket removed in step 7.

15 Connect the connector (JP65) removed in step 6.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



16 Install the bracket removed in step 5.

• One screw (M3×6)

Hook the notch of the bracket onto the notch of the main unit to attach.

17 Connect the connector (JP64) removed in step 4.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

18 Install the rear cover with reference to "■ Installation Procedure (Page 3-21)" in "3.3.5 Removing/Installing Rear Cover (Lispl-832)".

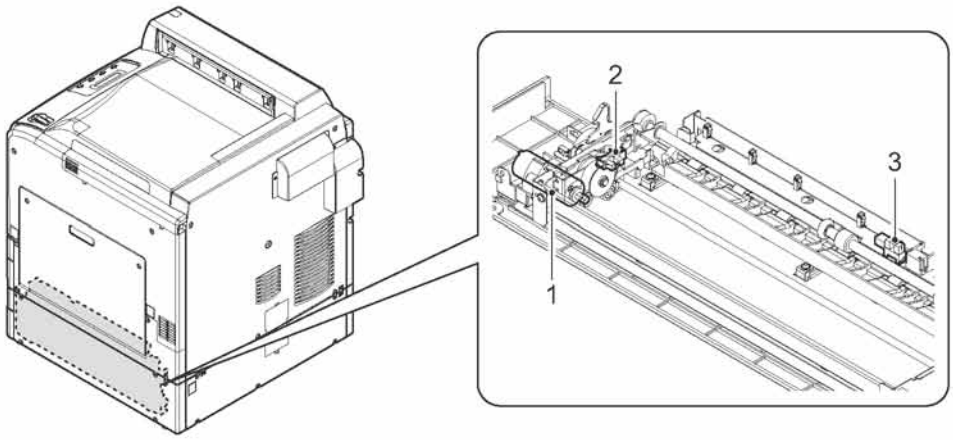
19 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the elevating transport motor.

6.4 Elevating Transport Unit

The elevating transport unit in the Lispl-832 (optional) includes the following loading parts:



No.	Name	Functions and Reference Sections
1	Elevating transport nip opening/closing motor	This motor opens or closes the elevating transport nip. For more information, see "6.4.2 Replacing Elevating Transport Nip Opening/Closing Motor (Page 6-13)".
2	Elevating transport nip opening/closing HP sensor	This photo sensor detects opening/closing Home Position of the elevating transport nip. For more information, see "6.4.3 Replacing Elevating Transport Nip Opening/Closing HP Sensor (Page 6-15)".
3	Supply outlet sensor	This photo sensor detects film transfer at the outlet of the Lispl-832. For more information, see "6.4.4 Replacing Supply Outlet Sensor (Page 6-18)".

6.4.1 Removing/Installing Elevating Transport Unit

This section describes the procedure for removing or installing the elevating transport unit when replacing loading parts in the Lispl-832 (optional).

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

The number of personnel and the estimated work hours required to replace loading parts is as follows:

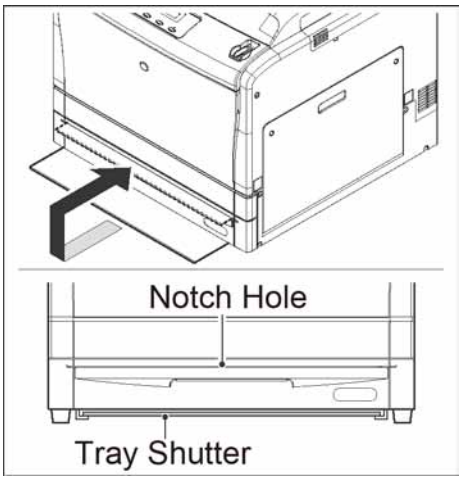
Number of Personnel	Work Hours
1	5 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Precision flat blade screwdriver		

■ Removal Procedure

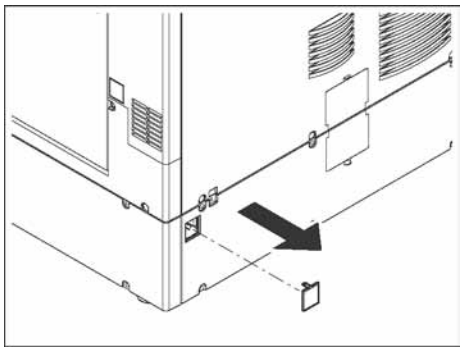


1 Pull the tray shutter out of the lower part of the supply tray.

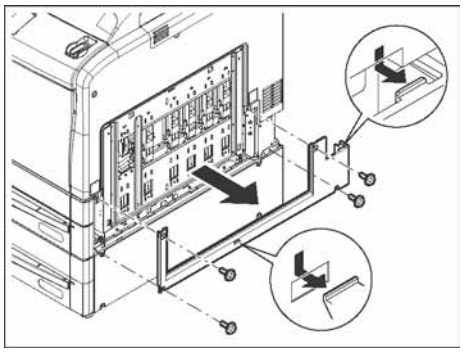
2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

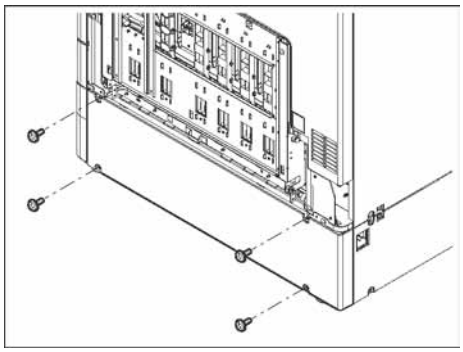
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the access hole cover.

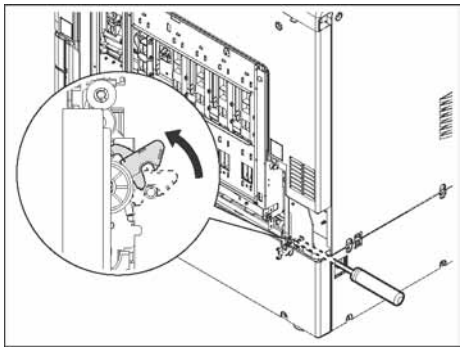


4 Remove the right cover and lower right with reference to "3.3.1 Removing/Installing Lower Right Cover (Page 3-6)".

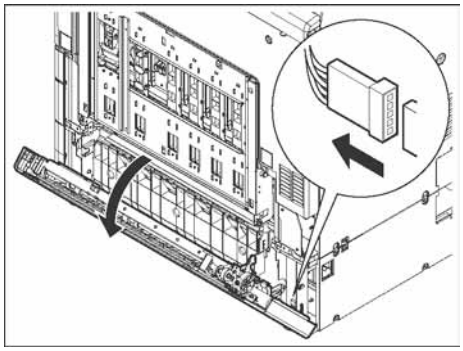


5 Remove the screws from the right cover.

• Four screws (M4×8)

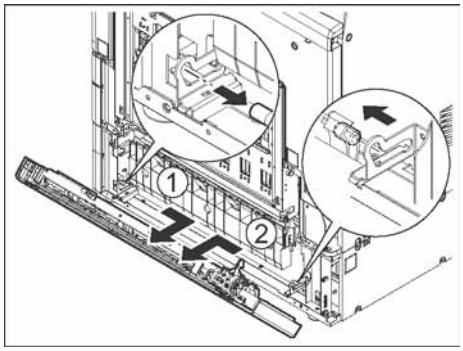


6 Insert the long screwdriver through the access hole and unlock the right cover.



7 Open the right cover and remove the connector (JJ81).

> **Caution** When removing the connector, hold the tab on the connector with your fingers and disconnect it.
> Pulling by the wires too tightly can cause a break.



8 Remove the elevating transport unit.

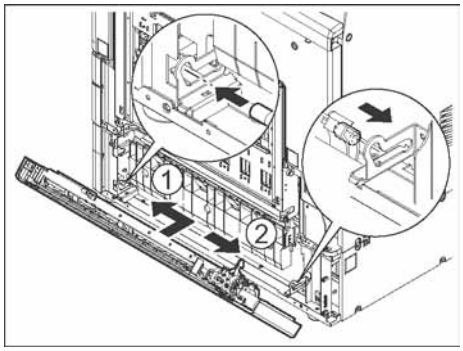
Remove the elevating transport unit shaft on the ② side and the shaft on the ① side shown in the figure to the left, from the notch of the main unit frame.

> **Note**
> - Either the shaft on the ① side or the ② side may be removed first.
> - If the shaft is difficult to remove from the notch in the frame, stand the elevating transport unit as vertical as possible and the shaft will be easier to remove.

This is the end of the process of removing the elevating transport unit.

- When replacing the elevating transport nip opening/closing motor, go to "6.4.2 Replacing Elevating Transport Nip Opening/Closing Motor (Page 6-13)".
- When replacing the elevating transport nip opening/closing sensor HP, go to "6.4.3 Replacing Elevating Transport Nip Opening/Closing HP Sensor (Page 6-15)".
- When replacing the supply outlet sensor, go to "6.4.4 Replacing Supply Outlet Sensor (Page 6-18)".

■ Installation Procedure

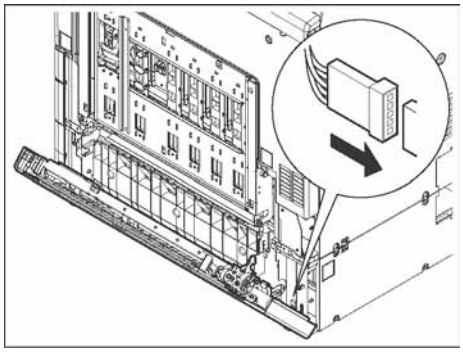


1 Install the elevating transport unit.

Insert the elevating transport unit shaft on the ② side and the shaft on the ① side shown in the figure to the left, into the notch of the main unit frame.

Note

- Either the shaft on the ① side or the ② side may be inserted first.
- If the shaft is difficult to insert into the notch in the frame, stand the elevating transport unit as vertical as possible and the shaft will be easier to insert.

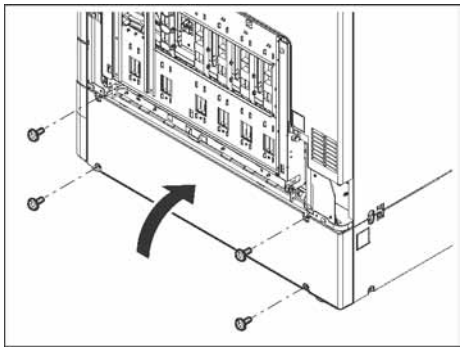


2 Connect the connector (JJ81).

Caution

Be sure to push the connector all the way in when connecting it.

If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

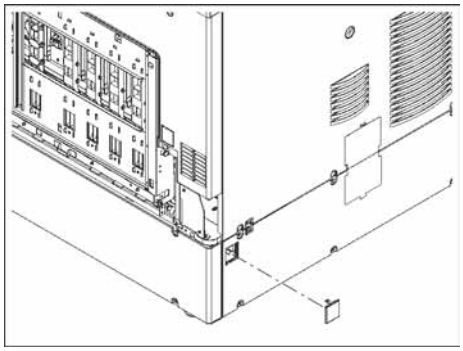


3 Close the elevating transport unit and tighten the screws.

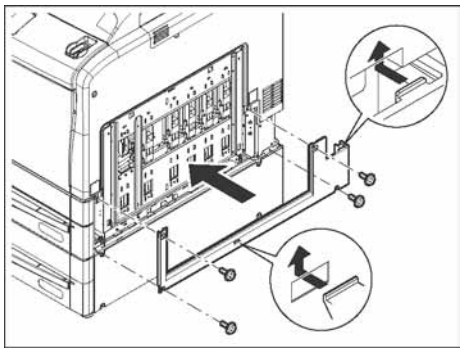
• Four screws (M4×8)

Caution

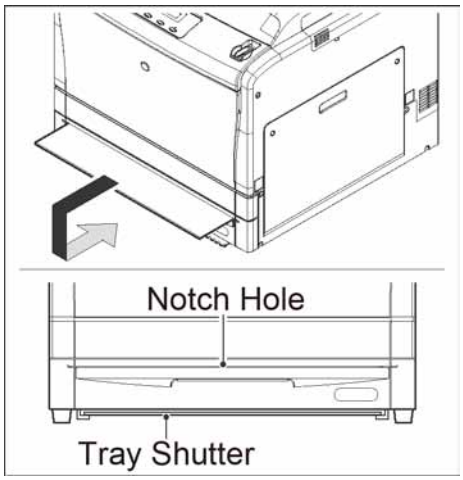
Confirm that the elevating transport section locks when it is closed. If it is not properly locked, the elevating transport section will be slightly raised, and it cannot be properly fixed in place.



4 Install the access hole cover.



5 Install the lower right cover and right cover with reference to “3.3.1 Removing/Installing Lower Right Cover (Page 3-6)”.



6 Put the supply tray back into the main unit.

7 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the elevating transport unit.

6.4.2 Replacing Elevating Transport Nip Opening/Closing Motor

Replace the motor opens or closes the elevating transport nip.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

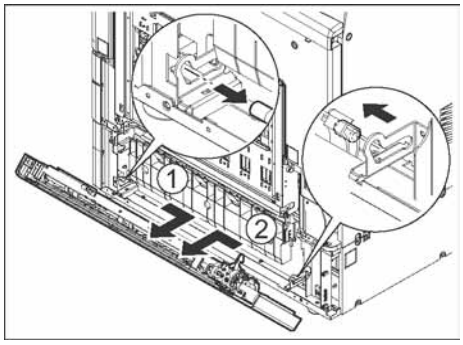
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

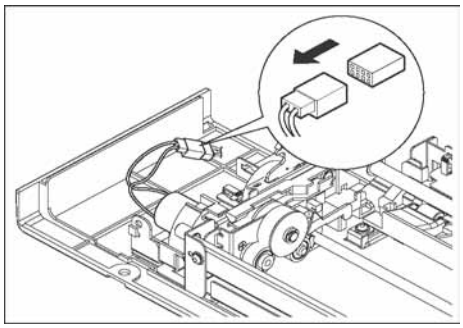
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Elevating transport nip opening/closing motor (for replacement)	4	Precision flat blade screwdriver



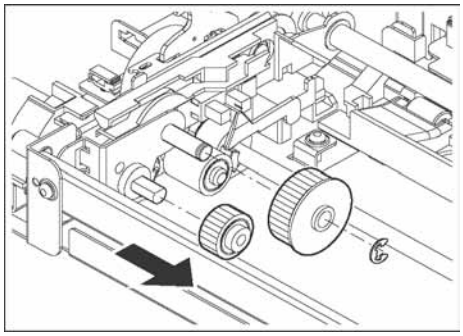
1 Install the elevating transportation unit with reference to "■ Removal Procedure (Page 6-9)" in "6.4.1 Removing/Installing Elevating Transport Unit".

> **Caution**
> - When removing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.



2 Remove the connector (JP79).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers. Pulling by the wires too tightly can cause a break.

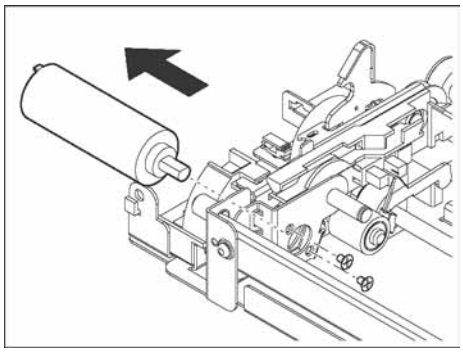


3 Remove the E ring with a precision screwdriver.

> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

4 Remove the gears.

- Two gears



5 Remove the elevating transport nip opening/closing motor.

• Two screws (M3×4)

6 Install a new elevating transport nip opening/closing motor.

7 Install the gears removed in step 4.

• Two gears

8 Install the E ring removed in step 3.

> **Caution** When attaching gears, attention should be paid to the gear orientation.
> After assembly, move the peripheral gears by hand and confirm that the assembled gear moves in conjunction.

9 Connect the connector (JP79) removed in step 2.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

10 Install the elevating transport unit, right cover, and rear cover with reference to "■ Installation Procedure (Page 6-11)" in "6.4.1 Removing/Installing Elevating Transport Unit".

11 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the elevating transport nip opening/closing motor.

6.4.3 Replacing Elevating Transport Nip Opening/Closing HP Sensor

Replace the photo sensor that detects opening/closing HP of the elevating transport nip.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

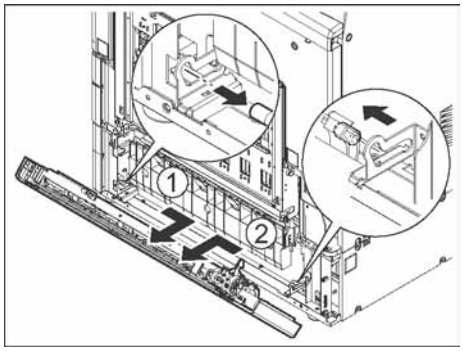
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

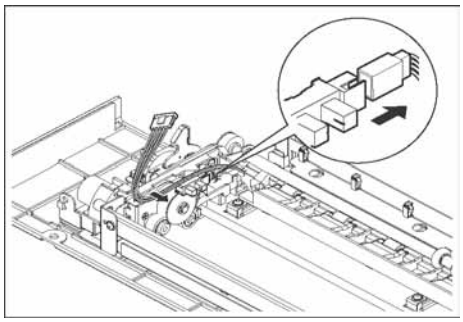
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)	4	Precision flat blade screwdriver



1 Install the elevating transportation unit with reference to "■ Removal Procedure (Page 6-9)" in "6.4.1 Removing/Installing Elevating Transport Unit".

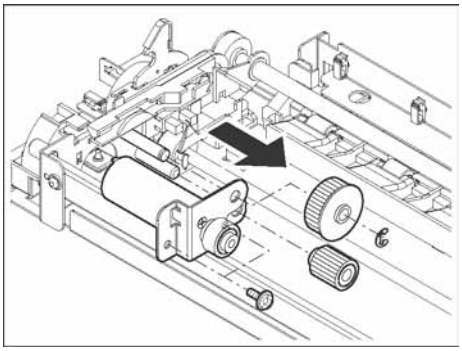
> **Caution**
> - When removing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.



2 Remove the connector (JP80).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers. Pulling by the wires too tightly can cause a break.

3 Remove the connector (JP80) wire from the slot on the stop band and bracket.



4 Remove the E ring with a precision screwdriver.

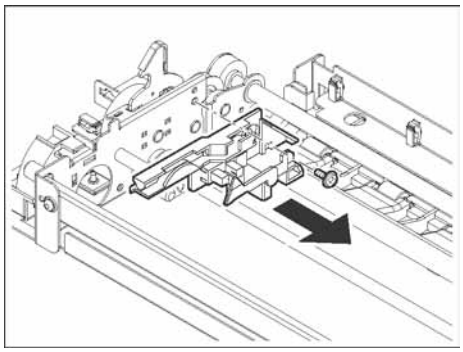
> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

5 Remove the gears.

- Two gears

6 Remove the bracket.

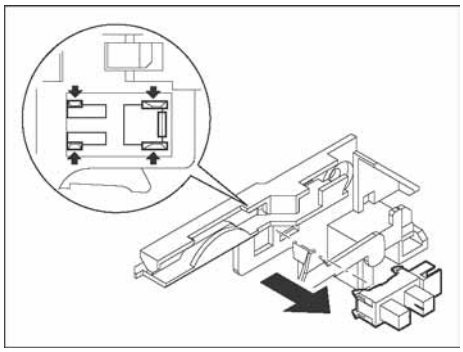
- Two screws (M3×6)



7 Remove the bracket.

• One screw (M3×6)

The bracket shaped like a hook is inserted into the main body. While sliding the bracket slightly, pull it out.



8 Push the tab on the back of the sensor inward and remove the photo sensor.

9 Insert a new photo sensor in the mounting hole.

10 Install the bracket removed in step 6.

• Two screws (M3×6)

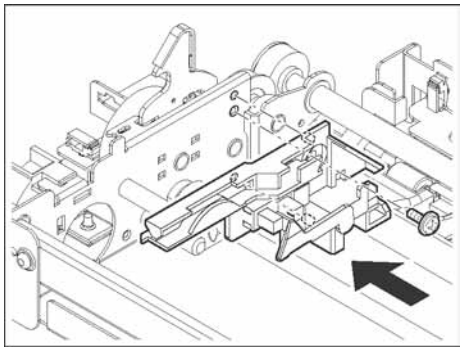
11 Install the two gears removed in step 5.

12 Install the E ring removed in step 4.

> **Caution** When attaching gears, attention should be paid to the gear orientation.
> After assembly, move the peripheral gears by hand and confirm that the assembled gear moves in conjunction.

13 Connect the connector (JP80) removed in step 2.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



14 Install the bracket removed in step 7.

• One screw (M3×6)

Hook the notch of the bracket onto the notch of the main unit and attach it after determining the attachment position with emboss at two places.

15 Put the wire removed in step 3 back into the slot on the bracket.

16 Install the elevating transport unit , right cover, and rear cover with reference to "■ Installation Procedure (Page 6-11)" in "6.4.1 Removing/Installing Elevating Transport Unit".

17 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the elevating transport nip opening/closing HP sensor.

6.4.4 Replacing Supply Outlet Sensor

This photo sensor detects film transfer at the outlet of Lispl-832.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

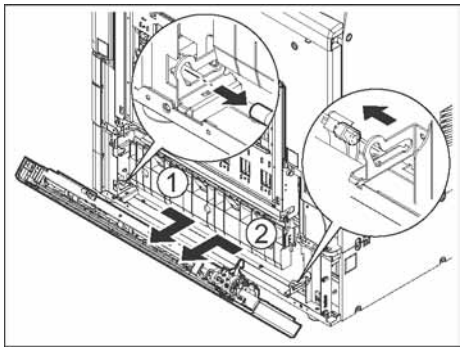
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

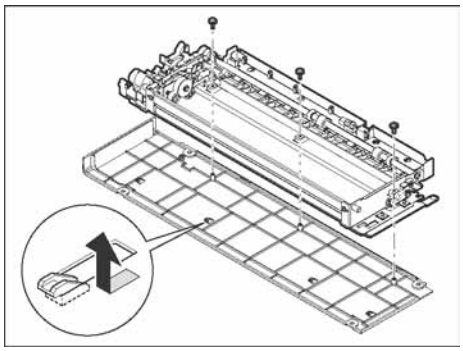
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



1 Install the elevating transportation unit with reference to "■ Removal Procedure (Page 6-9)" in "6.4.1 Removing/Installing Elevating Transport Unit".

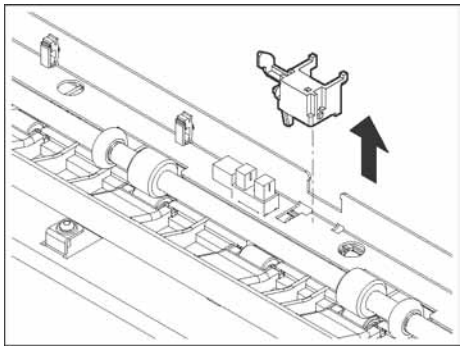
> **Caution**
> - When removing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.



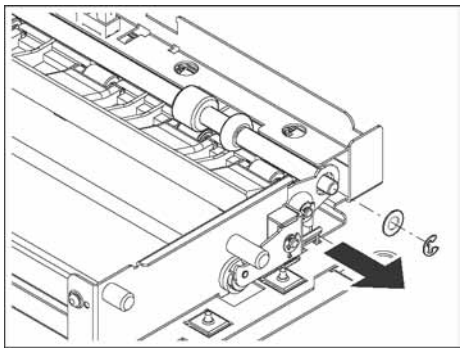
2 Remove the face panel for the elevating transport unit.

・Three screws (M3×6)

Slide the face panel so as to unhook its tabs (4 places) from the elevating transport unit and remove it from the unit.



3 Remove the actuator assembly.



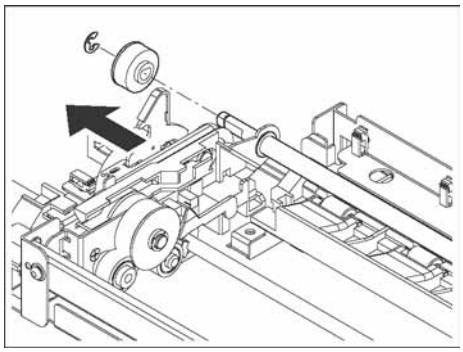
4 Remove the E ring with a precision screwdriver.

・One E ring

> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

5 Remove the polyslider.

・One polyslider



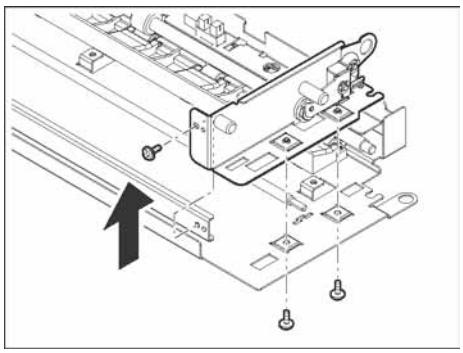
6 Remove the E ring with a precision screwdriver.

・One E ring

> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

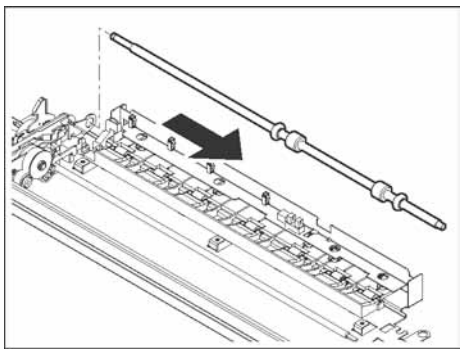
7 Remove the gear.

・One gear

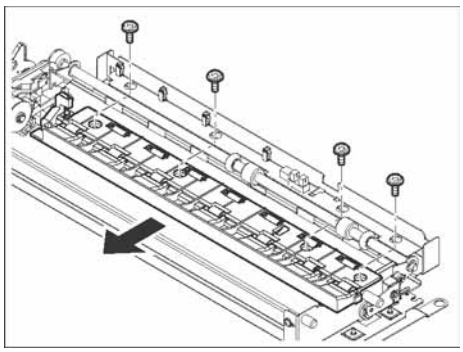


8 Remove the side plate.

・Three screws (M3×6)

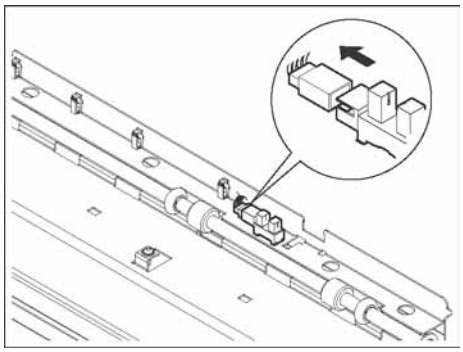


9 Take out the shaft.



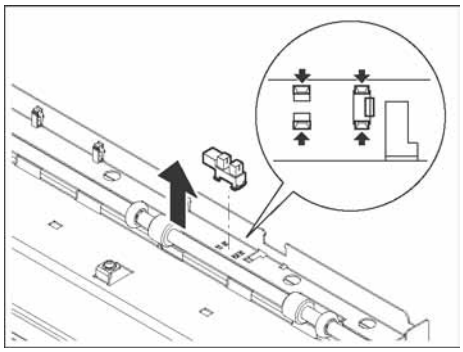
10 Remove the guide.

• Four screws (M3×6)



11 Remove the connector (JP43).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



12 Push the tab on the back of the sensor inward and remove the photo sensor.

13 Insert a new photo sensor in the mounting hole.

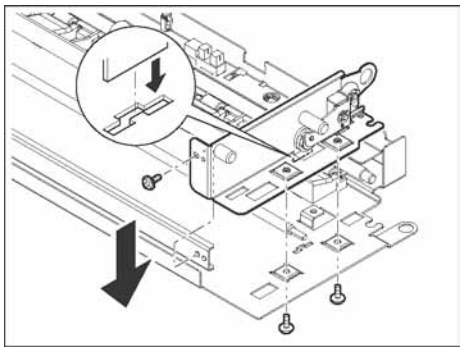
14 Connect the connector (JP43) removed in step 11.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

15 Install the guide removed in step 10.

- Four screws (M3×6)

16 Install the shaft removed in step 9.



17 Install the side plate removed in step 8.

- Three screws (M3×6)

18 Install the gear removed in step 7.

- One gear

19 Install the E ring removed in step 6.

- One E ring

20 Install the bearing removed in step 5.

- One bearing

21 Install the E ring removed in step 4.

・One E ring

22 Install the actuator assembly removed in step 3.

23 Install the face panel removed in step 2.

・Three screws (M3×6)

Slide the face panel so as to unhook its tabs (4 places) from the elevating transport unit and remove it from the unit.

24 Install the elevating transport unit , right cover, and rear cover with reference to "■ Installation Procedure (Page 6-11)" in "6.4.1 Removing/Installing Elevating Transport Unit".

25 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the supply outlet sensor.

Chapter 7 Replacing Sub Scan Unit Loading Parts

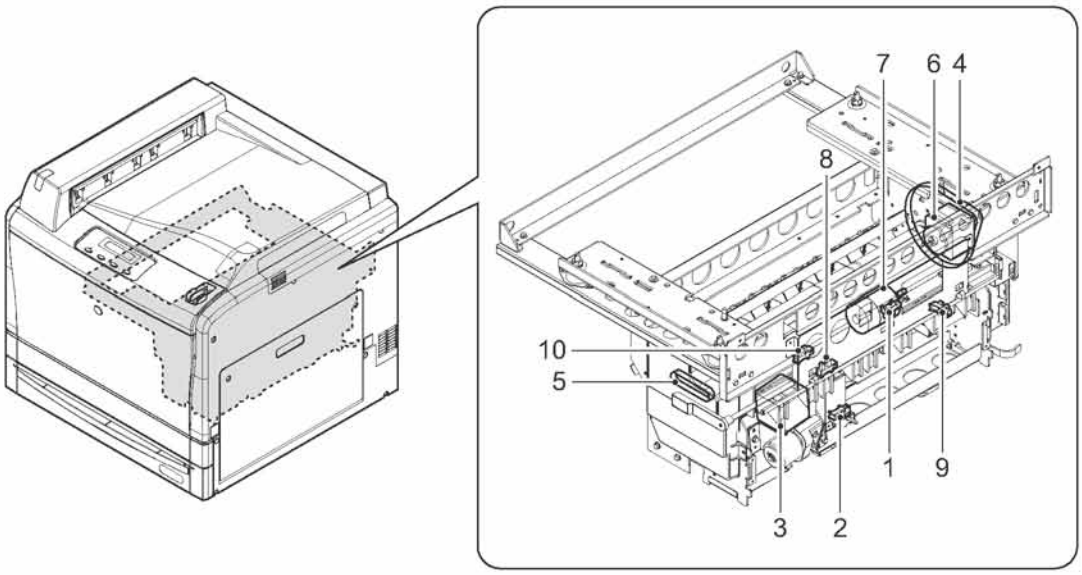
This chapter describes how to replace loading parts in the sub scan unit when they fail and how to adjust after replacing the loading parts.

7.1 Placing Loading Parts 7-2
7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit) 7-4
7.3 Replacing Sub Scan Unit (Including the Position Regulation Unit) 7-10
7.4 Replacing Right Cover Detection Sensor 7-12
7.5 Replacing Position Regulation Inlet Sensor.....7-15
7.6 Replacing Position Regulation Transport Motor 7-19
7.7 Replacing Moderation belt 7-23
7.8 Replacing Transfer belt.....7-25
7.9 Replacing Sub Scan Transport Motor.....7-27
7.10 Replacing Sub Scan Nip Motor.....7-30
7.11 Replacing Sub Scan Inlet Sensor 7-34
7.12 Replacing Sub Scan Nip HP Sensor.....7-38
7.13 Replacing V-sync Sensor.....7-40
7.14 Replacing Reference Guide.....7-44

7.1 Placing Loading Parts

■ Sub Scan Unit

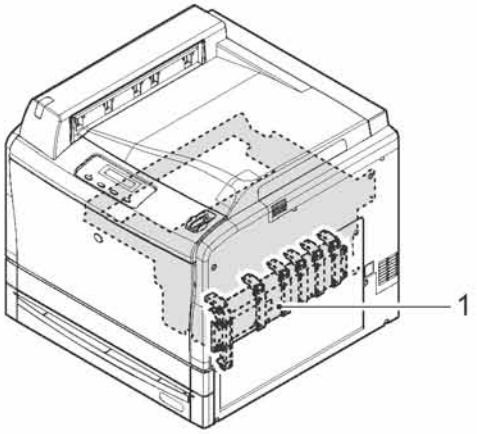
The sub scan unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Right cover detection sensor	This photo sensor detects the opening/closing of the right cover. For more information, see "7.4 Replacing Right Cover Detection Sensor (Page 7-12)".
2	Position regulation inlet sensor	This photo sensor detects film transportation at the inlet of the justification unit. For more information, see "7.5 Replacing Position Regulation Inlet Sensor (Page 7-15)".
3	Position regulation transport motor	This drive motor is used to transport film in the justification unit. For more information, see "7.6 Replacing Position Regulation Transport Motor (Page 7-19)".
4	Moderation belt	This rubber belt transfers drive of the transport motor to the inlet roller. For more information, see "7.7 Replacing Moderation belt (Page 7-23)".
5	Transfer belt	This steel belt transfers drive of the inlet roller to the outlet roller. For more information, see "7.8 Replacing Transfer belt (Page 7-25)".
6	Sub Scan transport motor	This drive motor is used to transport film in the sub scan unit. For more information, see "7.9 Replacing Sub Scan Transport Motor (Page 7-27)".
7	Sub Scan nip motor	This motor drives the nip in the sub scan unit. For more information, see "7.10 Replacing Sub Scan Nip Motor (Page 7-30)".
8	Sub Scan inlet sensor	This photo sensor detects film transportation at the inlet of the sub scan unit. For more information, see "7.11 Replacing Sub Scan Inlet Sensor (Page 7-34)".
9	Sub Scan nip HP sensor	This photo sensor detects the home position of the nip in the sub scan unit. For more information, see "7.12 Replacing Sub Scan Nip HP Sensor (Page 7-38)".
10	V-sync sensor	This photo sensor detects film transportation in the sub scan unit. For more information, see "7.13 Replacing V-sync Sensor (Page 7-40)".

■ Position Regulation Unit

The position regulation unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Reference guide	This guide regulates the film position during transport to align the image position. For more information, see “7.14 Replacing Reference Guide (Page 7-44)”.

7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)

This section describes the procedure for removing or installing the sub scan unit (including the exposure unit and position regulation unit) when replacing loading parts in the sub scan unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

The number of personnel and the estimated work hours required to replace loading parts is as follows:

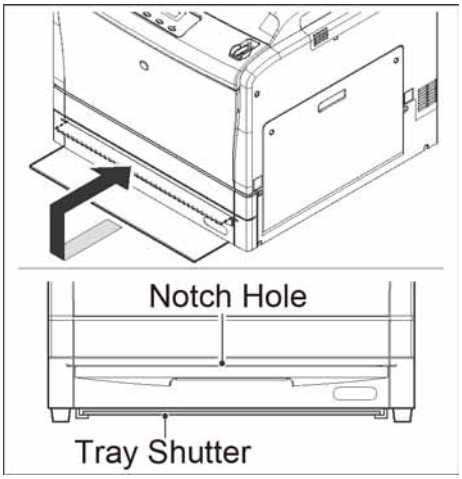
Number of Personnel	Work Hours
1	10 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)

■ Removal Procedure

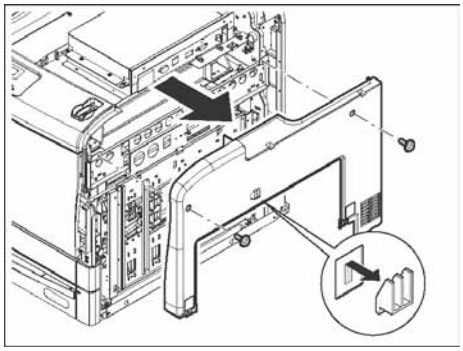


1 Pull the tray shutter out of the lower part of the supply tray.

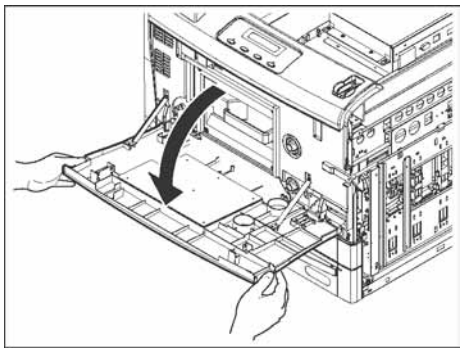
2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



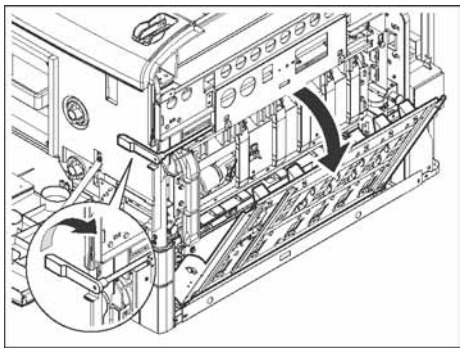
3 Remove the right cover, lower right cover, LAN cover, film ejection tray, connector cover, and the upper right cover with reference to "■ Removal Procedure (Page 3-12)" in "3.3.3 Removing/Installing Upper Right Cover".



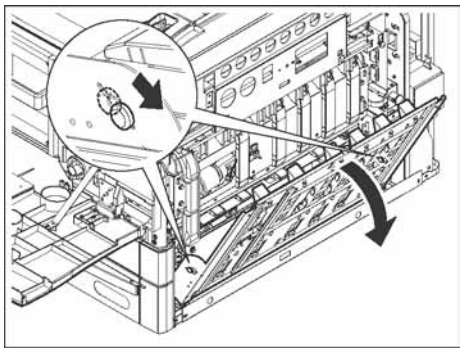
4 Open the front cover.

The front cover will open by pulling its upper part on both sides.

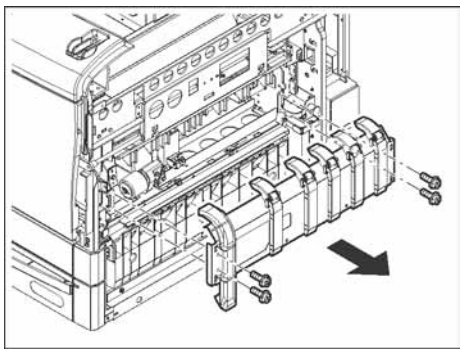
> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.



5 Open the external guide assy by rotating the lever B in the direction of an arrow.

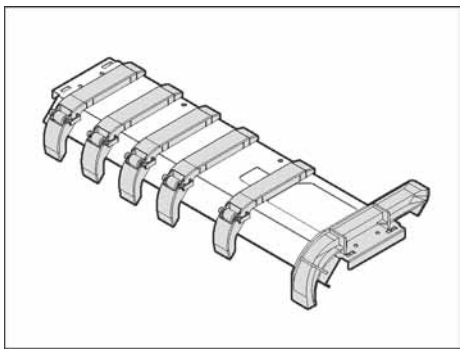


6 Open the external guide unit assembly after removing the stop band at two places.

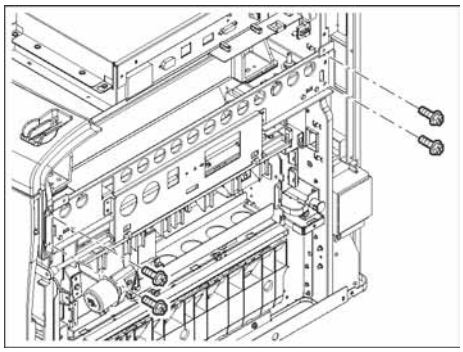


7 Remove the guide unit assembly.

- Four screws (M3×6)

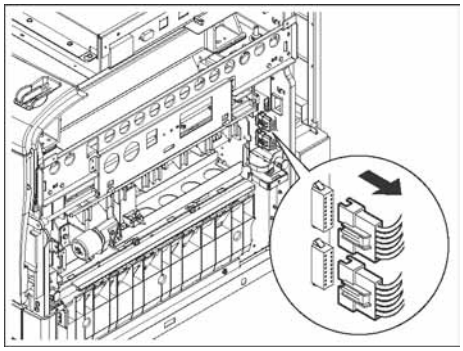


> **Caution** If the surface of the guide is scratched, it could scratch film during transportation of film. When removing or installing the guide, be careful not to scratch the surface of the reference guide.



8 Remove the fixing screws of sub scan unit.

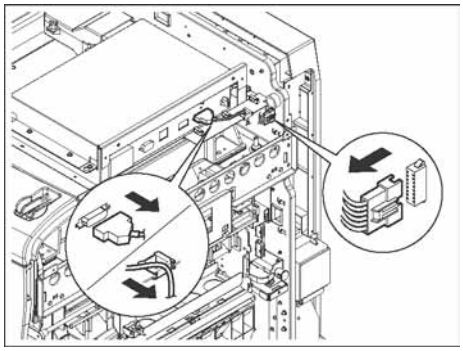
• Four screws (M4×8)



9 Remove the connectors (JJ15) and (JJ18).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

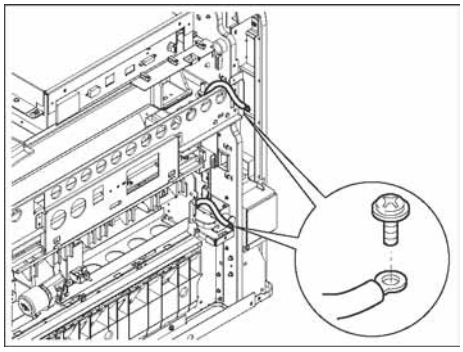
> **Note** Turn the wire disconnected from the connector toward the main unit to keep out of the way of the sub scan unit when it is pulled out.



10 Remove wire from the locking wire saddle and take off the connectors (CCN6) and (JJ25).

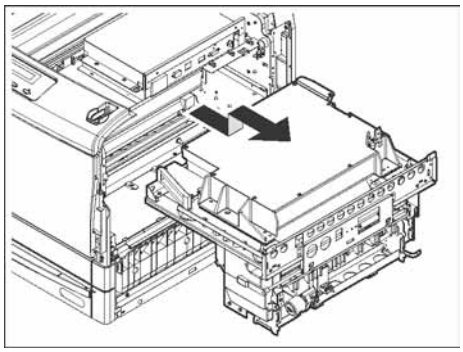
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

> **Note** Turn the wire disconnected from the connector toward the main unit to keep out of the way of the sub scan unit when it is pulled out.



11 Remove the ground wire.

• One screw (M4×8)×2



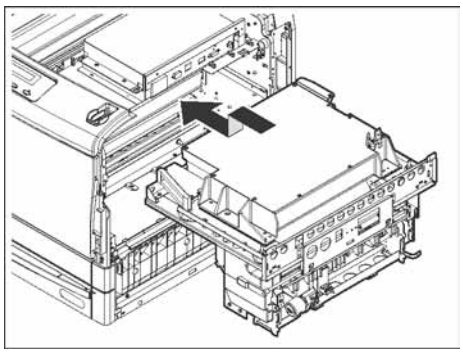
12 Pull out the sub scan unit toward you until it gets caught and slightly lift it to remove.

> **Caution**
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. If you apply excessive pressure, it can overturn the unit.

This is the end of the process of removing the sub scan unit.

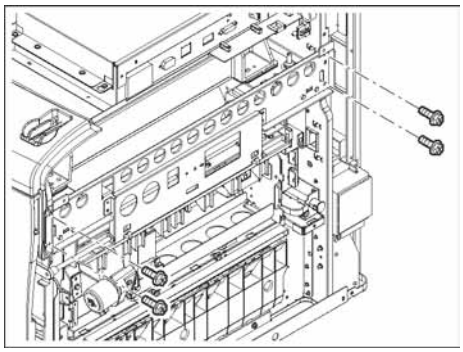
- When replacing the right cover detection sensor, go to "7.4 Replacing Right Cover Detection Sensor (Page 7-12)".
- When replacing the position regulation transport motor, go to "7.6 Replacing Position Regulation Transport Motor (Page 7-19)".
- When replacing the position regulation inlet sensor, go to "7.5 Replacing Position Regulation Inlet Sensor (Page 7-15)".
- When replacing the Moderation belt, go to "7.7 Replacing Moderation belt (Page 7-23)".
- When replacing the Transfer belt, go to "7.8 Replacing Transfer belt (Page 7-25)".
- When replacing the Sub Scan transport motor, go to "7.9 Replacing Sub Scan Transport Motor (Page 7-27)".
- When replacing the Sub Scan nip motor, go to "7.10 Replacing Sub Scan Nip Motor (Page 7-30)".
- When replacing the Sub Scan inlet sensor, go to "7.11 Replacing Sub Scan Inlet Sensor (Page 7-34)".
- When replacing the Sub Scan nip HP sensor, go to "7.12 Replacing Sub Scan Nip HP Sensor (Page 7-38)".
- When replacing the V-sync sensor, go to "7.13 Replacing V-sync Sensor (Page 7-40)".

■ Installation Procedure



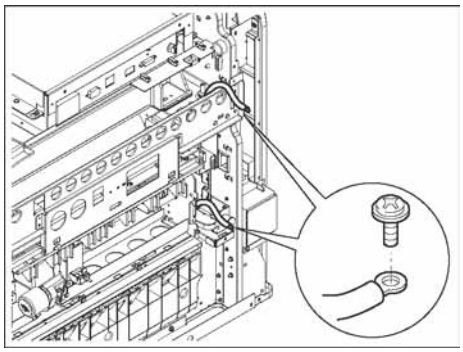
1 Install the sub scan unit.

> **Caution**
> - Be careful not to get it hung on a wire.
> - The sub scan unit weighs approximately 16kg.
> When putting the sub scan unit back to the main unit, work should be performed carefully.



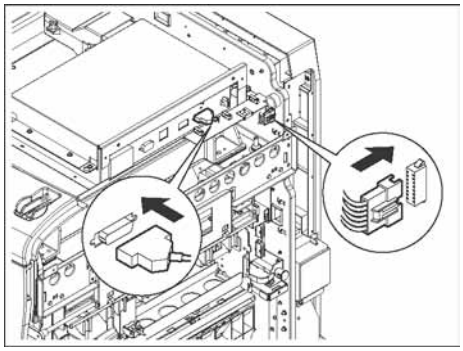
2 Install the fixing screws of the sub scan unit.

• Four screws (M4×8)



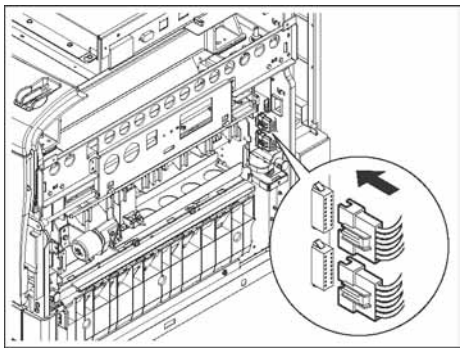
3 Install the ground wire.

• One screw (M4×8)×2



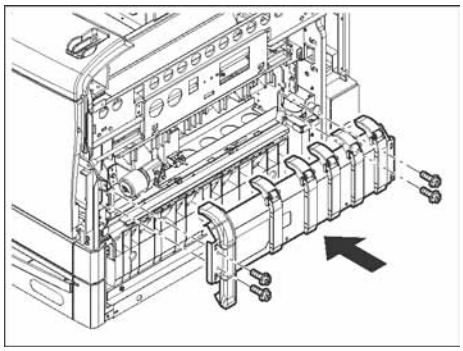
4 Connect the connectors (CCN6) and (JJ25).

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



5 Remove the connectors (JJ15) and (JJ18).

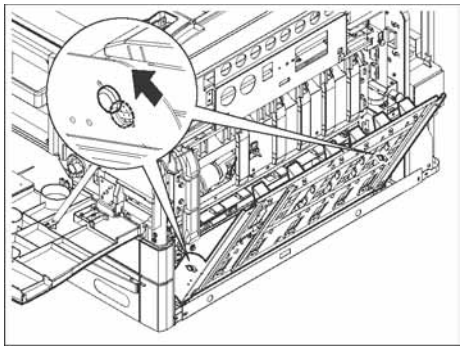
> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



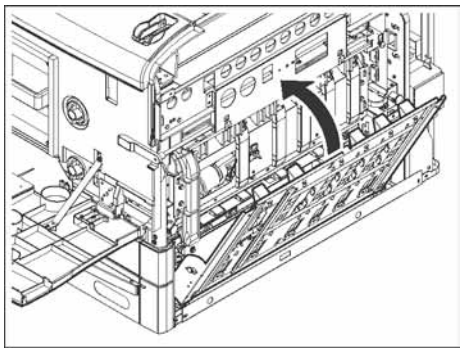
6 Install the reference guide.

• Four screws (M3×6)

> **Caution** When installing the reference guide, be careful not to come into contact with the position regulation sensor.

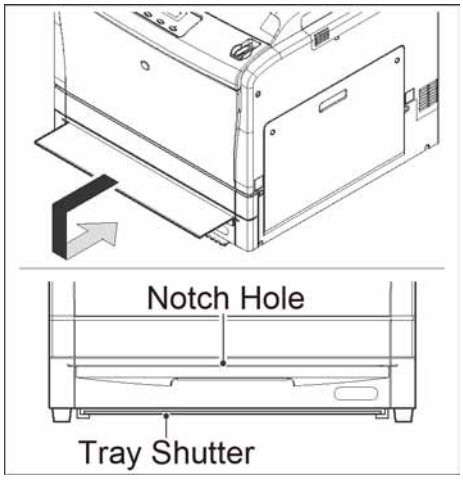


7 Install the guide unit assembly by hooking the stop bands in two locations on the external guide unit assembly.



8 Close the external guide unit assembly.

9 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to "■ Installation Procedure (Page 3-15)" in "3.3.3 Removing/ Installing Upper Right Cover".



10 Put the supply tray back into the main unit.

11 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the sub scan unit.

7.3 Replacing Sub Scan Unit (Including the Position Regulation Unit)

This section describes the procedure for replacing the sub scan unit (including the position regulation unit).

> **Caution** Be sure to turn OFF the power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

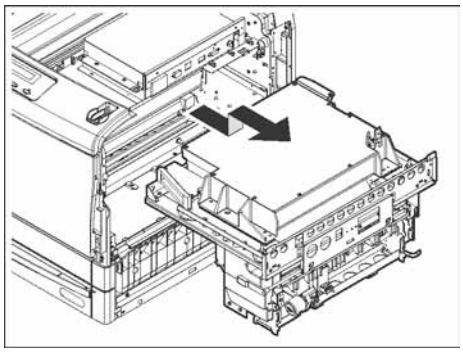
The number of personnel and the estimated work hours required to replace loading parts is as follows.

Number of Personnel	Work Hours
1	15 minutes

Requirements

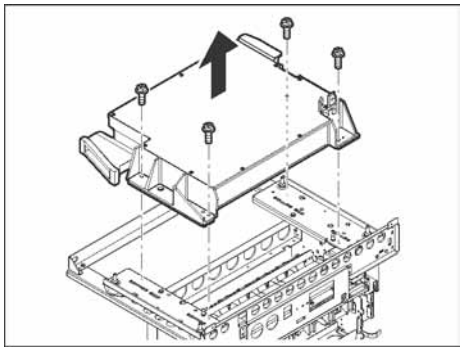
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Sub scan unit (for replacement)		



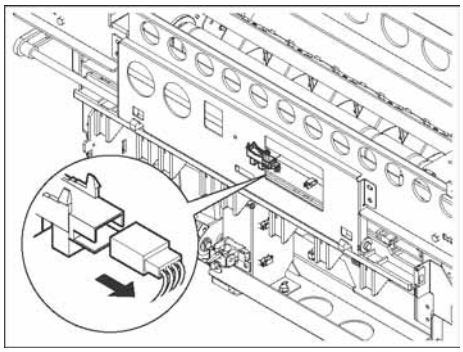
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to the work site.
> - If you place the removed sub scan unit on a table, it may be extremely unstable.
> It should be kept in mind that applying excessive pressure could overturn the unit.



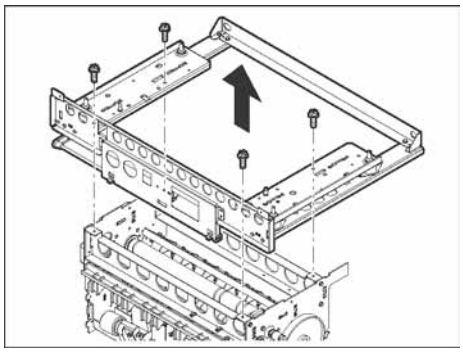
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts. Be careful not to subject to a strong impact.



3 Remove the connector (JP10).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



4 Remove the exposure unit mounting frame unit assembly.

・Four screws (M4×6)

5 Install the removed exposure unit mounting frame unit assembly onto the new sub scan unit.

・Four screws (M4×6)

6 Connect the connector (JP10) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

7 Refer to step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)" and install the exposure unit.

8 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the sub scan unit (including the position regulation unit).

■ Work after replacing the sub scan unit (including the position regulation unit)

After replacing the sub scan unit (including the position regulation unit), perform the following work.

- "14.2.3 Adjusting Sub Scan OFFSET (Vertical) Writing Position (Page 14-16)"
- "14.3.3 Sub Scan OFFSET Adjustment (Page 14-20)"

7.4 Replacing Right Cover Detection Sensor

Replace the photo sensor that detects the opening or closing of the right cover.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

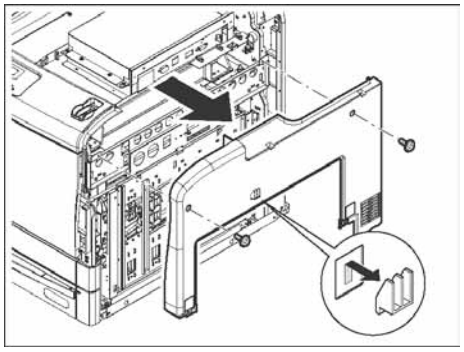
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

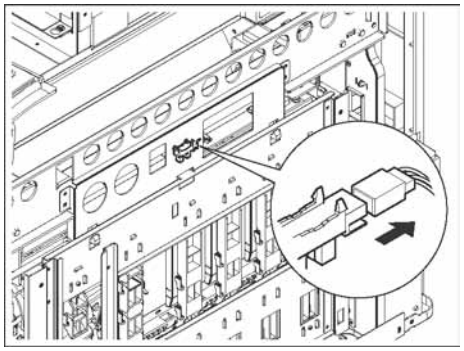
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



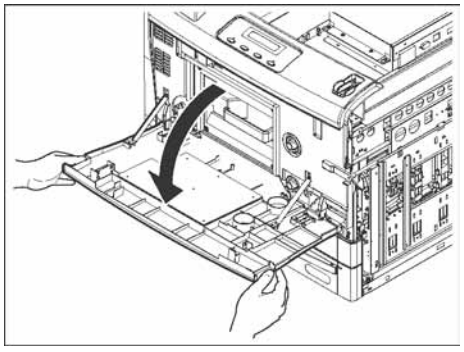
1 Remove the right cover, lower right cover, LAN cover, film ejection tray, connector cover, and the upper right cover with reference to "■ Removal Procedure (Page 3-12)" in "3.3.3 Removing/Installing Upper Right Cover".

> **Caution** When replacing loading parts, be sure to replace with the tray shutter attached.
> If some of the film remains on the tray, the film may be exposed.



2 Remove the connector (JP10).

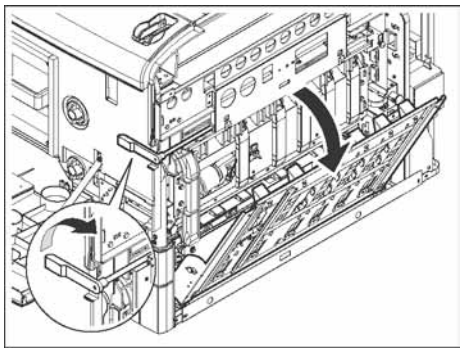
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



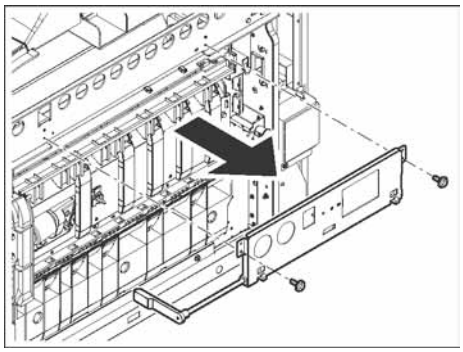
3 Open the front cover.

The front cover will open by pulling its upper part on both sides.

> **Caution** Do not push down or place objects on the opened front cover. Failure to observe this caution can cause the breakdown.

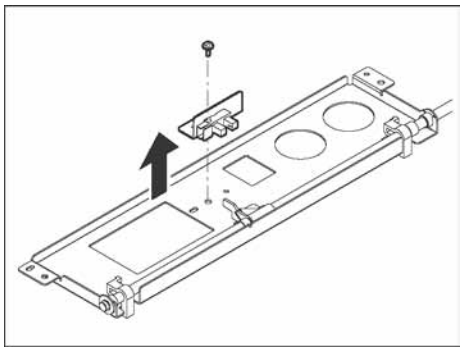


4 Open the external guide unit assembly by rotating the lever B in the direction of an arrow.



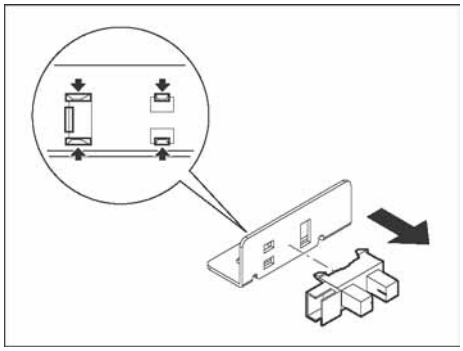
5 Remove the cover.

• Two screws (M3×6)



6 Remove the bracket.

• One screw (M3×6)



7 Push the tab on the back of the sensor inward and remove the photo sensor.

8 Insert a new photo sensor in the mounting hole.

9 Install the bracket removed in step 6.

• One screw (M3×6)

Fix so that the positioning hole in the bracket aligns with the emboss on the mating part.

10 Connect the connector (JP10) removed in step 2.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

11 Install the cover removed in step 5.

• Two screws (M3×6)

12 Close the external guide unit assembly opened in step 4.

13 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to "■ Installation Procedure (Page 3-15)" in "3.3.3 Removing/Installing Upper Right Cover".

14 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the right cover detection sensor.

7.5 Replacing Position Regulation Inlet Sensor

Replace the photo sensor that detects film transportation at the inlet of the justification unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

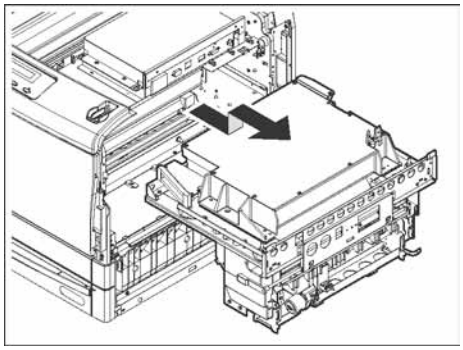
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	15 minutes

Requirements

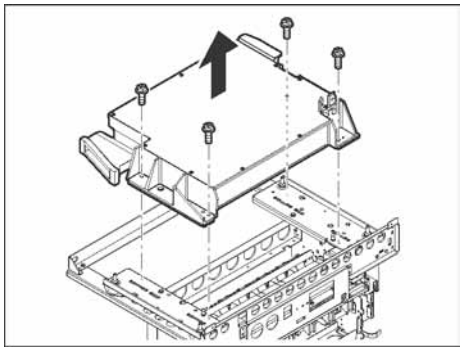
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



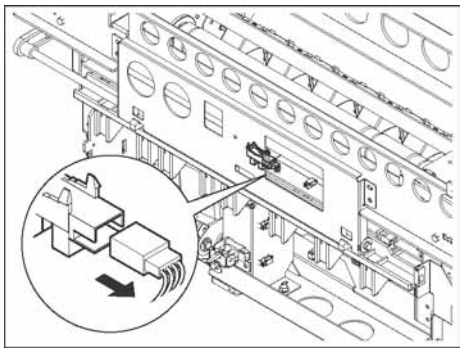
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable.
> It should be kept in mind that applying excessive pressure could overturn the unit.



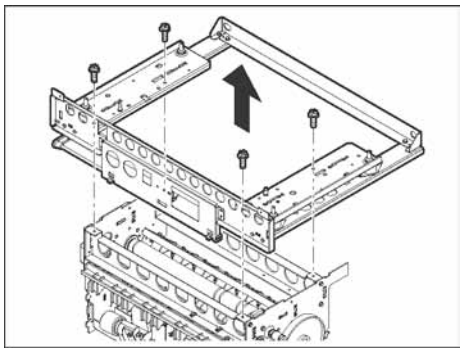
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts. Be careful not to subject to a strong impact.



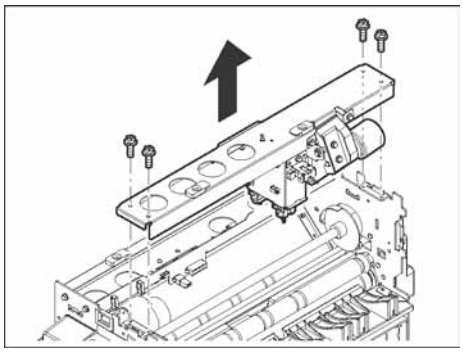
3 Remove the connector (JP10).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



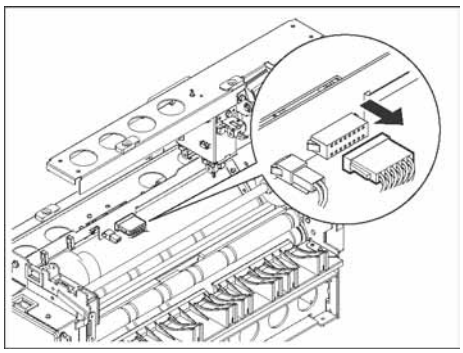
4 Remove the exposure unit mounting frame unit assembly.

- Four screws (M4×6)



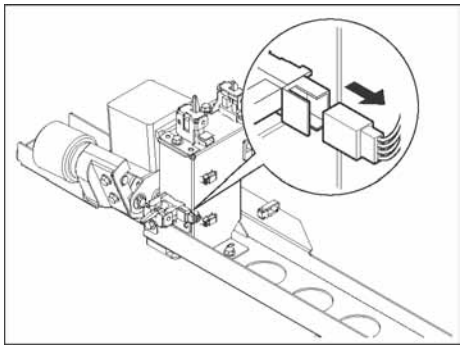
5 Place the sub scan unit upside down and remove the steel plate.

- Four screws (M3×6)



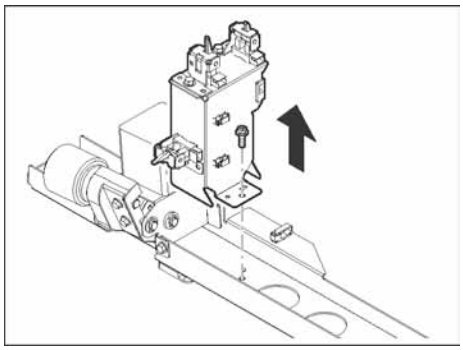
6 Remove the connector (JJ51).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



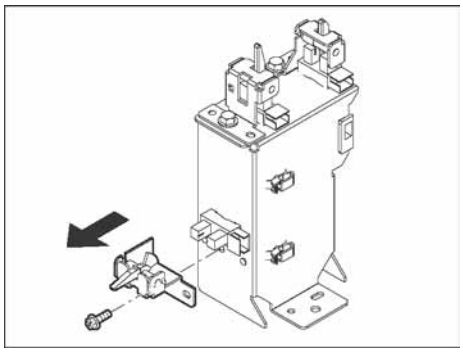
7 Remove the connector (JP33).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



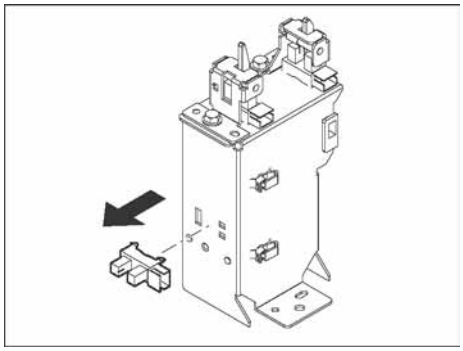
8 Remove the bracket.

• One screw (M3×6)



9 Remove the light shield bracket.

• One screw (M3×6)



10 Push the tab on the back of the sensor inward and remove the photo sensor.

11 Insert a new photo sensor in the mounting hole.

12 Install the bracket removed in step 9.

• One screw (M3×6)

Fix so that the positioning hole in the bracket aligns with the emboss on the mating part.

13 Install the bracket removed in step 8.

• One screw (M3×6)

Fix so that the positioning hole in the bracket aligns with the emboss on the mating part.

14 Connect the connector (JP33) removed in step 7.

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

15 Install the steel plate removed in step 5.

• One screw (M3×6)

16 Connect the connector (JJ51) removed in step 6.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

17 Install the exposure unit mounting frame unit assembly removed in step 5.

• Four screws (M4×6)

18 Connect the connector (JP10) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

19 Install the main scan unit with reference to the step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)".

20 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

21 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the position regulation inlet sensor.

7.6 Replacing Position Regulation Transport Motor

Replace the drive motor used to transport film in the justification unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

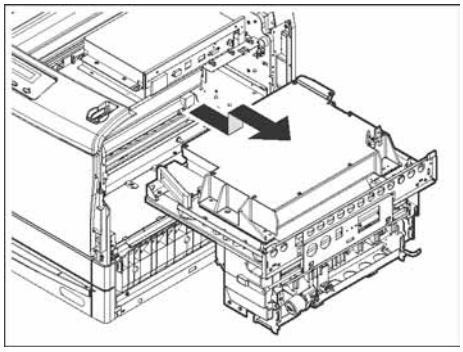
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	15 minutes

Requirements

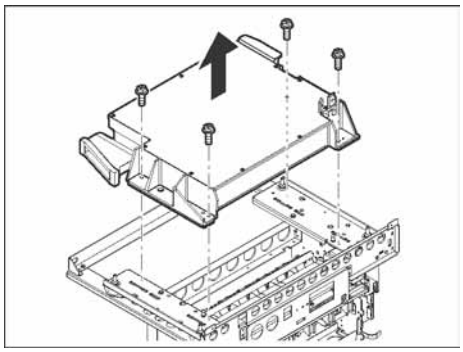
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Position regulation transport motor (for replacement)	4	Precision flat blade screwdriver



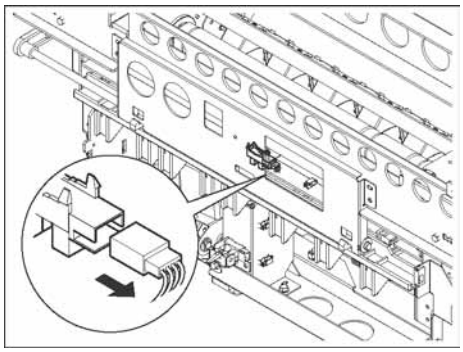
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



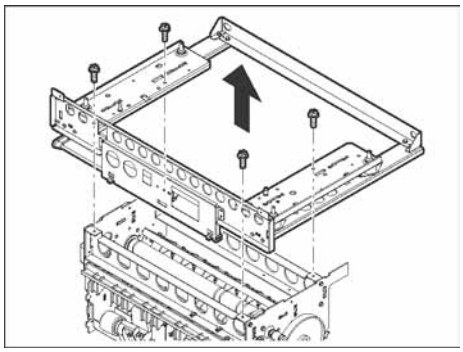
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts. Be careful not to subject to a strong impact.



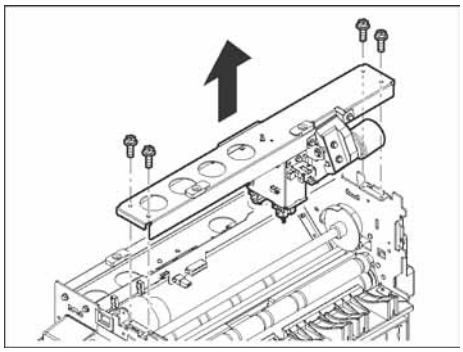
3 Remove the connector (JP10).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



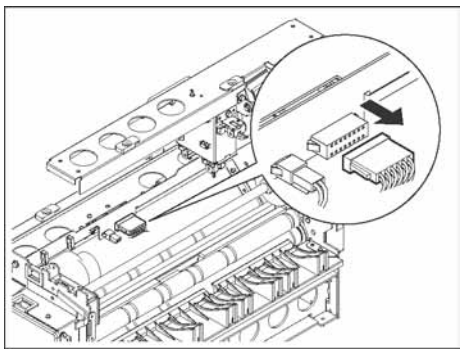
4 Remove the exposure unit mounting frame unit assembly.

- Four screws (M4×6)



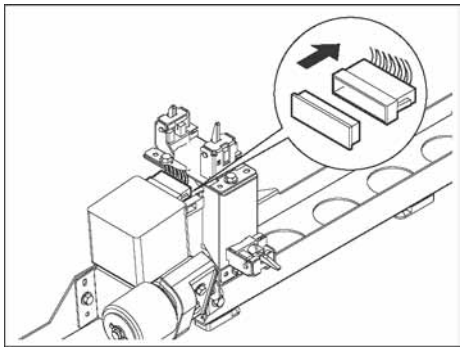
5 Place the sub scan unit upside down and remove the steel plate.

- Four screws (M3×6)



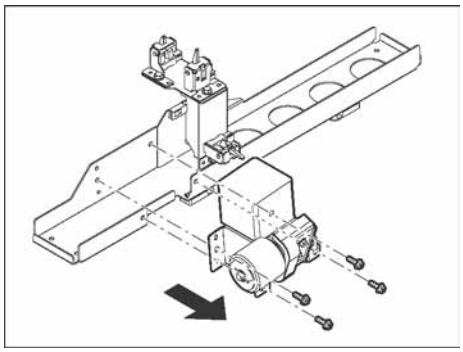
6 Remove the connector (JJ51).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



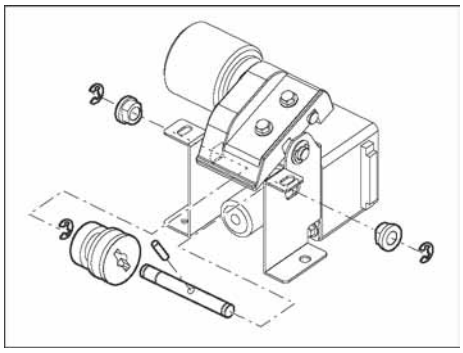
7 Remove the connector (JP57).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



8 Remove the bracket.

• Four screws (M3×6)



9 Removing the gear fixing parallel pin.

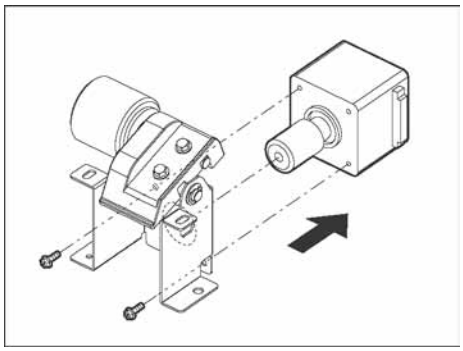
• One parallel pin

10 Remove the E ring with a precision screwdriver.

・E rings in two locations

> **Caution** When removing the E ring, be sure not to exert too much force. Doing so may cause you to stab your finger with the precision screwdriver, or may cause the E ring to spring out and become lost.

11 Pull out the shaft.



12 Remove the position regulation transport motor.

• Two screws (M3×6)

13 Install a new position regulation transport motor.

• Two screws (M3×6)

14 Install the shaft, E rings, gear, and gear parallel pin removed in step 11, step 10 and step 9.

・One parallel pin

・E rings in two locations

15 Install the bracket removed in step 8.

・Four screws (M3×6)

16 Connect the connector (JP57) removed in step 7.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

17 Install the exposure unit mounting frame unit assembly removed in step 4.

・Four screws (M3×6)

18 Connect the connector (JP10) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

19 Install the main scan unit with reference to the step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)".

20 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

21 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the position regulation transport motor.

7.7 Replacing Moderation belt

Replace the Moderation belt that transfers drive of the transport motor to the inlet roller.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

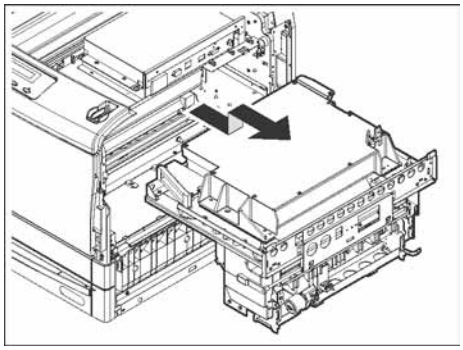
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

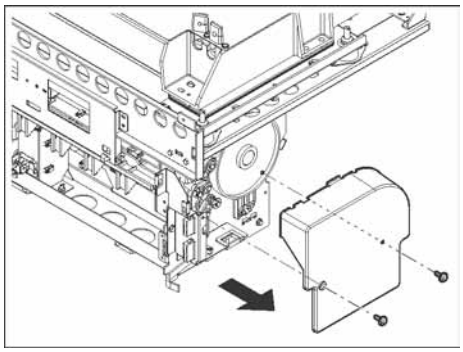
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Moderation belt (for replacement)	4	Gloves



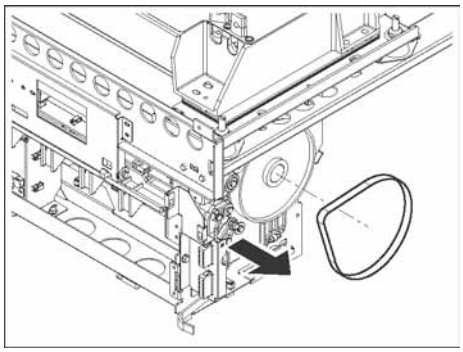
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

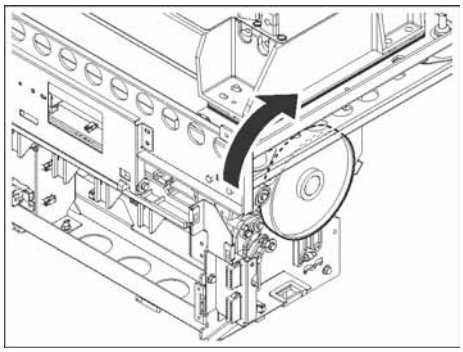
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



2 Remove the cover.

• Two screws (M3×6)





3 Remove the Moderation belt by loosening the belt tension.

> **Caution** If you touch the belt with bare hands, it can cause dust and dirt to adhere to the belt, resulting in pitch irregularity and image inconsistencies.
> When removing the belt, wear gloves.

4 Install a new Moderation belt.

5 Adjust the Moderation belt by rotating the pulley several times so that the belt is placed in the center of the pulley.

> **Note** Since the groove in the pulley is gently tapered, rotating the pulley several times moves the Moderation belt to the center of the pulley.

6 Install the cover removed in step 2.

- Two screws (M3×6)

7 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

8 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the Moderation belt.

7.8 Replacing Transfer belt

Replace the Transfer belt that transfers drive of the inlet roller to the outlet roller.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

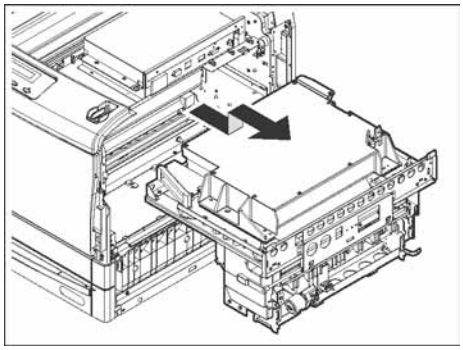
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

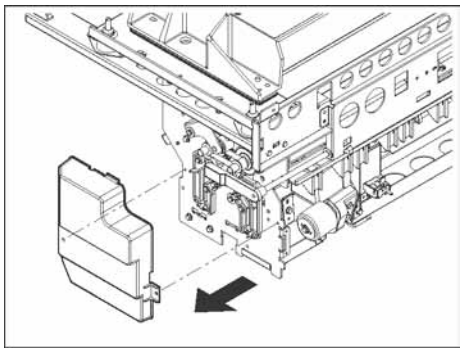
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Steel belt (for replacement)	4	Gloves



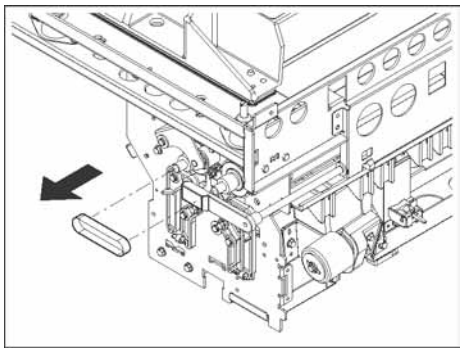
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

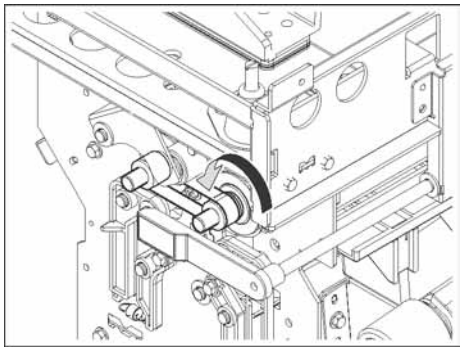
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



2 Remove the cover.

- Two screws (M3×6)





3 Remove the Transfer belt by loosening the belt tension.

> **Caution** If you touch the belt with bare hands, it can cause dust and dirt to adhere to the belt, resulting in pitch irregularity and image inconsistencies.
> When removing the belt, wear gloves.

4 Install a new Transfer belt.

5 Adjust the Transfer belt by rotating the pulley several times so that the belt is placed in the center of the pulley.

> **Note** Since the groove in the pulley is gently tapered, rotating the pulley several times moves the belt to the center of the pulley.

6 Install the cover removed in step 2.

- Two screws (M3×6)

7 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

8 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the Transfer belt.

7.9 Replacing Sub Scan Transport Motor

Replace the drive motor used to transport film in the sub scan unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

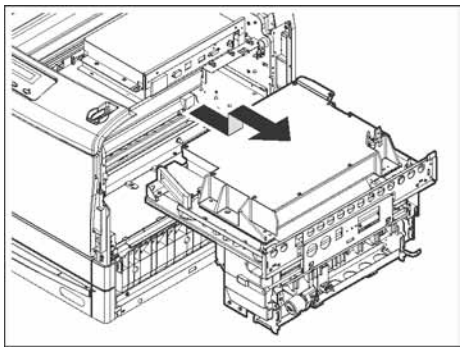
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

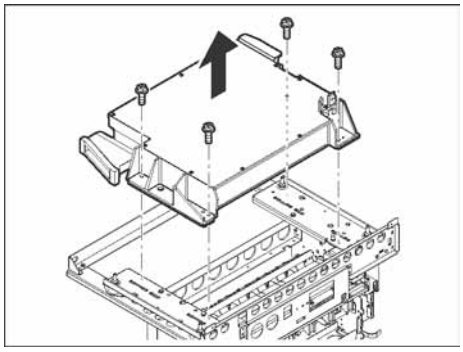
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Sub Scan transport motor (for replacement)	4	Gloves



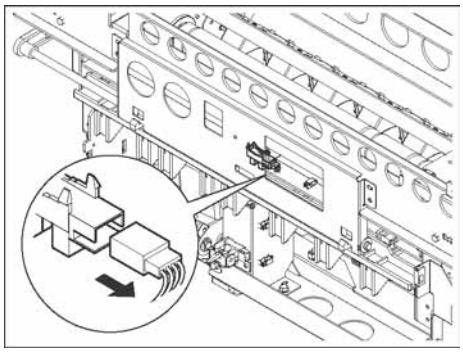
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



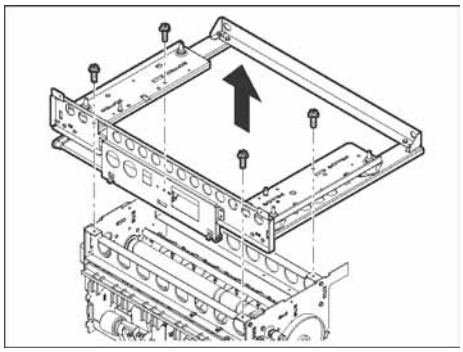
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts. Be careful not to subject to a strong impact.



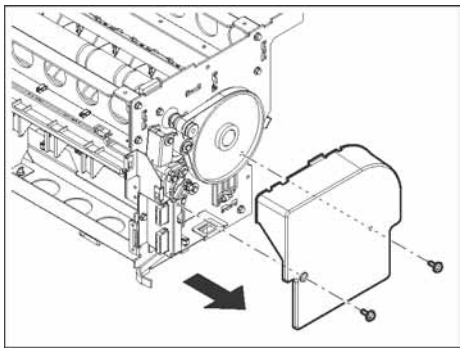
3 Remove the connector (JP10).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



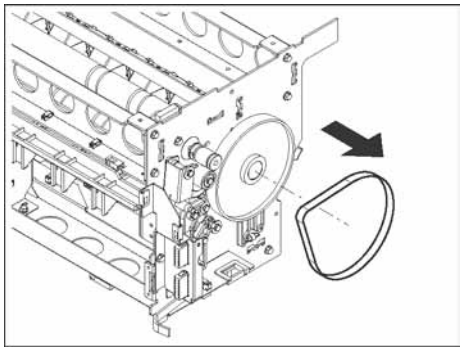
4 Remove the exposure unit mounting frame unit assembly.

- Four screws (M4×6)



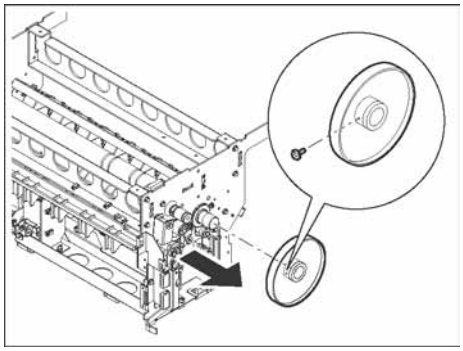
5 Remove the cover.

- Two screws (M3×6)



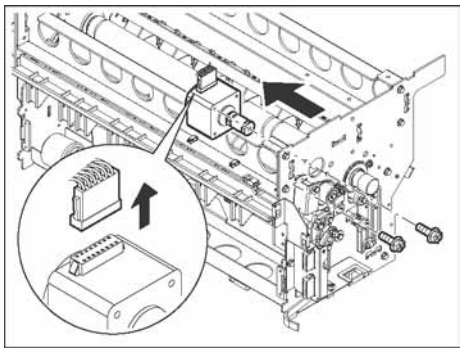
6 Remove the Moderation belt by loosening the belt tension.

> **Caution** If you touch the belt with bare hands, it can cause dust and dirt to adhere to the belt, resulting in pitch irregularity and image inconsistencies.
> When removing the belt, wear gloves.



7 Loosen the set screw and remove the pulley.

- One set screw (M3×6)



8 Remove the connector (JP59).

> **Caution** When removing the connector, do not pull by the wires but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

9 Remove the Sub Scan transport motor.

- Two screws (M3×6)

10 Install a new Sub Scan transport motor.

- Two screws (M3×6)

11 Connect the connector (JP59) removed in step 8.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

12 Install the pulley removed in step 7.

- One set screw (M3×6)

13 Install Moderation belt removed in step 6.

> **Note** Since the groove in the pulley is gently tapered, rotating the pulley several times moves the belt to the center of the pulley.

14 Install the cover removed in step 5.

- Two screws (M3×6)

15 Install the exposure unit mounting frame unit assembly removed in step 4.

- Four screws (M4×6)

16 Connect the connector (JP10) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

17 Refer to step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)" and install the exposure unit.

18 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

19 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the Sub Scan transport motor.

■ Work after replacing the Sub Scan transport motor

After replacing the Sub Scan transport motor, perform the following work.

- "14.3.3 Sub Scan OFFSET Adjustment (Page 14-20)"

7.10 Replacing Sub Scan Nip Motor

Replace the motor that drives the nip in the sub scan unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

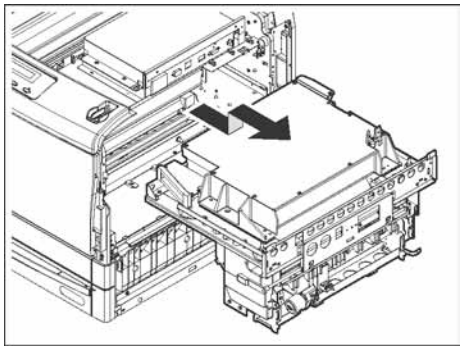
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	15 minutes

Requirements

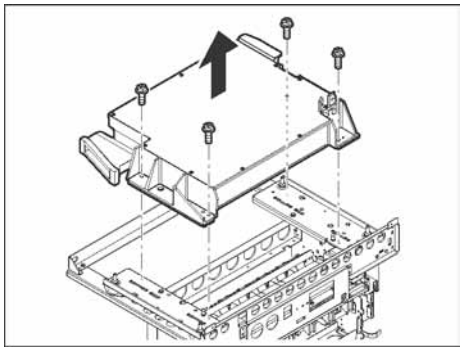
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Sub Scan nip motor (for replacement)		



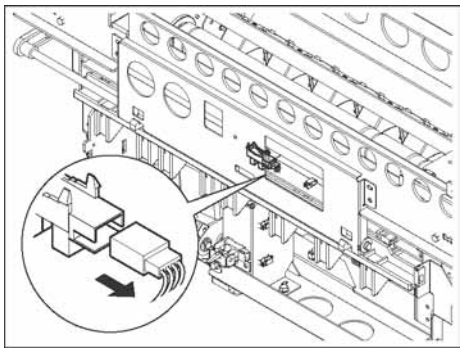
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



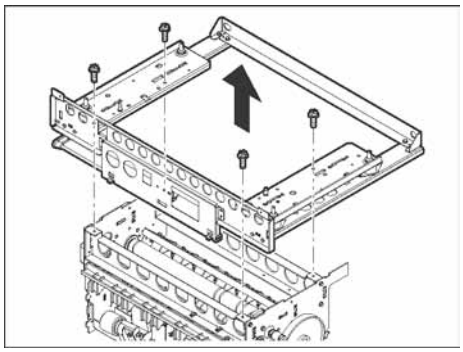
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts.
> Be careful not to subject to a strong impact.



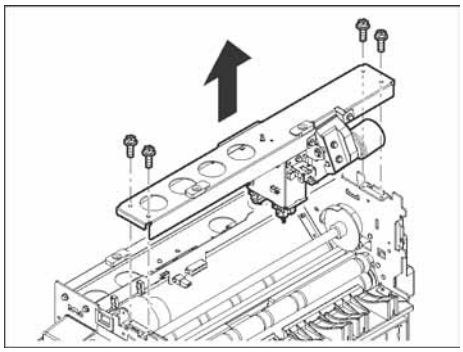
3 Remove the connector (JP10).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



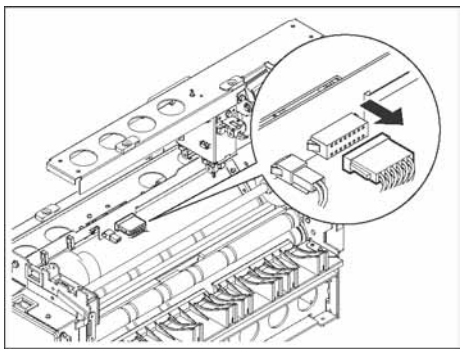
4 Remove the exposure unit mounting frame unit assembly.

• Four screws (M4×6)



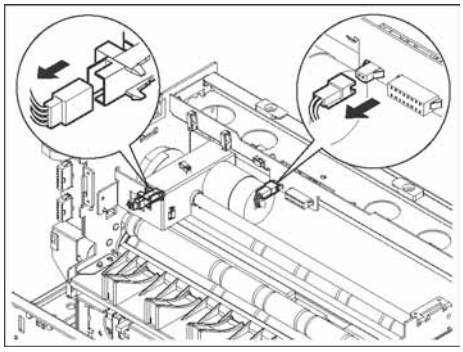
5 Place the sub unit scan upside down and remove the steel plate.

• Four screws (M3×6)



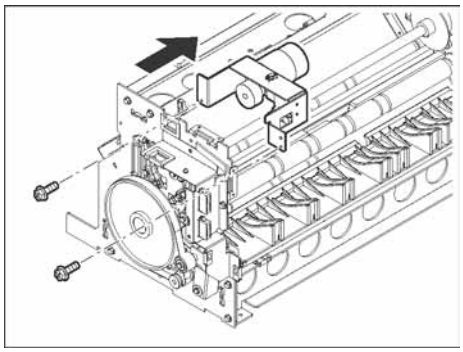
6 Remove the connector (JJ51).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

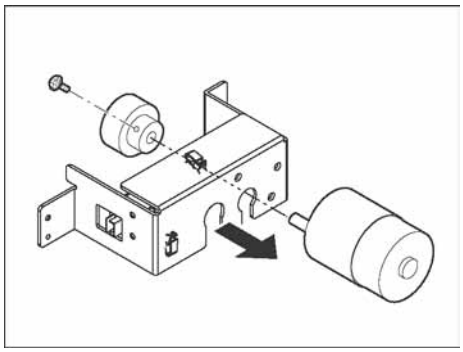


7 Remove the connectors (JP58) and (JP35).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



8 Remove the bracket.
- Two screws (M3×6)



9 Remove the set screw.
- One set screw (M3×6)

10 Remove the gears.

11 Remove the Sub Scan nip motor.
- Two screws (M3×4)

12 Install a new Sub Scan nip motor.
- Two screws (M3×4)

13 Install the gears removed in step 10.

14 Install the set screw removed in step 9.
- One set screw (M3×6)

15 Install the bracket removed in step 8.
- Two screws (M3×6)

16 Connect the connectors (JP58) and (JP35) removed in step 7.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

17 Install the steel plate removed in step 5.

18 Connect the connector (JJ51) removed in step 6.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

19 Install the exposure unit mounting frame unit assembly removed in step 4.
- Four screws (M4×6)

20 Connect the connector (JP10) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

21 Refer to step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)" and install the exposure unit.

22 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

23 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the Sub Scan nip motor.

7.11 Replacing Sub Scan Inlet Sensor

Replace the photo sensor that detects film transportation at the inlet of the sub scan unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

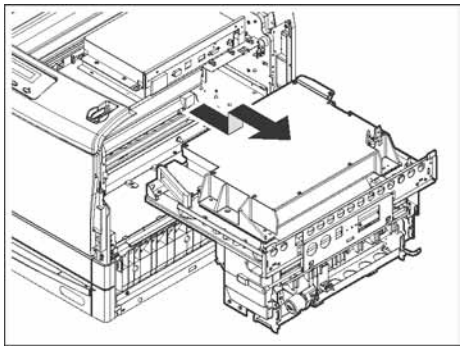
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

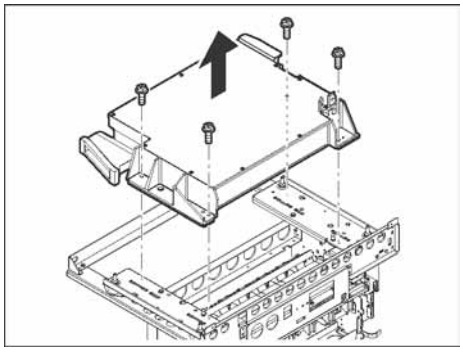
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



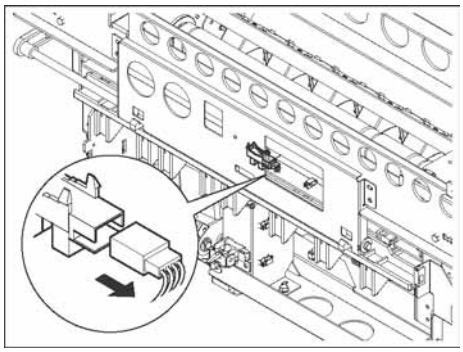
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



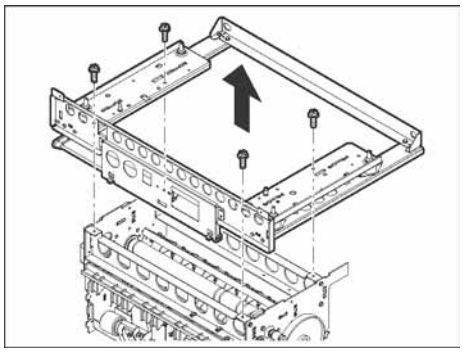
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts. Be careful not to subject to a strong impact.



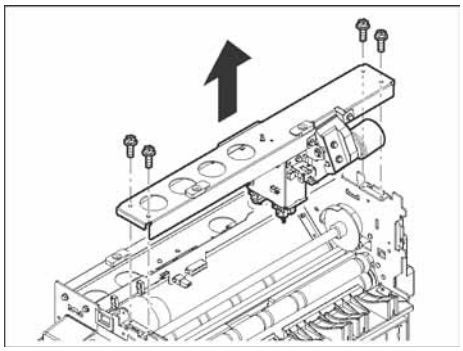
3 Remove the connector (JP10).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



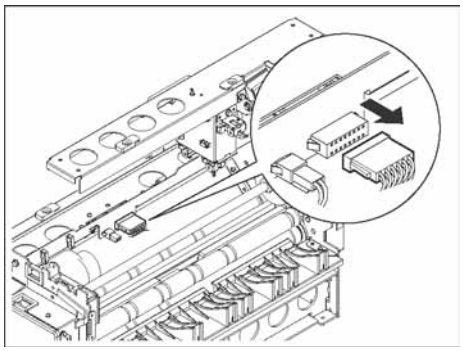
4 Remove the exposure unit mounting frame unit assembly.

- Four screws (M4×6)



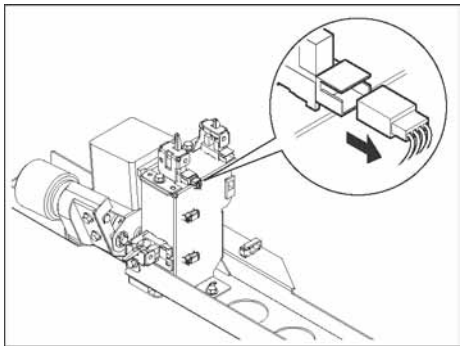
5 Place the sub scan unit upside down and remove the steel plate.

- Four screws (M3×6)



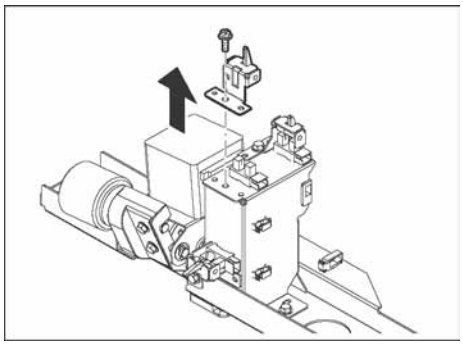
6 Remove the connector (JJ51).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



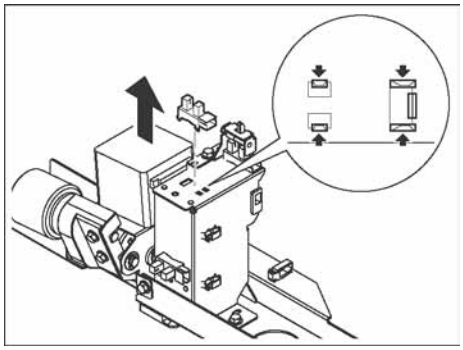
7 Remove the connector (JP36).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



8 Remove the sensor cover.

• One screw (M3×6)



9 Push the tab on the back of the sensor inward and remove the photo sensor.

10 Insert a new photo sensor in the mounting hole.

11 Install the sensor cover removed in step 8.

• One screw (M3×6)

Fix so that the positioning hole in the bracket aligns with the emboss on the mating part.

12 Connect the connector (JP36) removed in step 7.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

13 Install the steel plate removed in step 5.

• Four screws (M3×6)

14 Connect the connector (JJ51) removed in step 6.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

15 Install the exposure unit mounting frame unit assembly removed in step 4.

• Four screws (M4×6)

16 Connect the connector (JP10) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

17 Refer to step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)" and install the exposure unit.

18 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

19 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the Sub Scan inlet sensor.

7.12 Replacing Sub Scan Nip HP Sensor

Replace the photo sensor that detects the home position of the nip in the sub scan unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

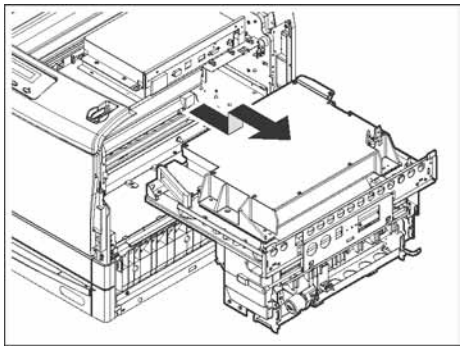
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

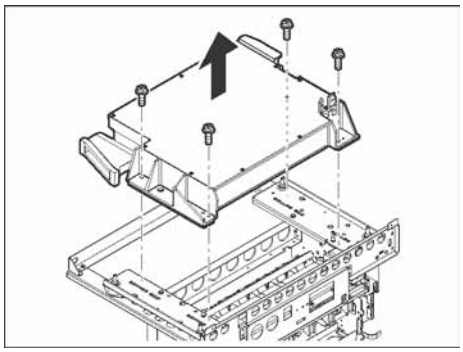
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



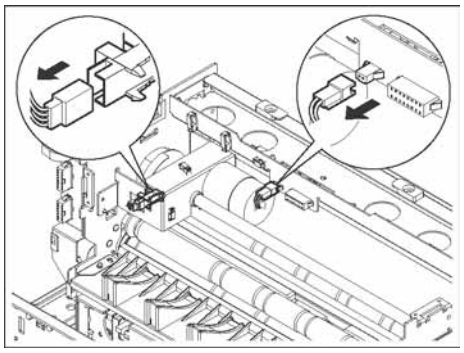
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



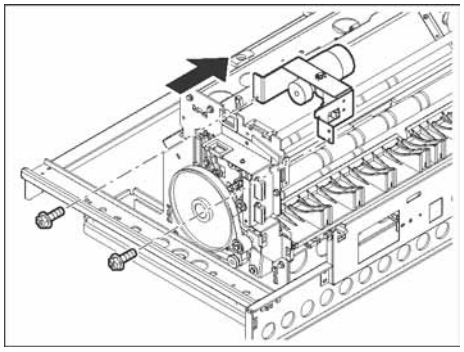
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts.
> Be careful not to subject to a strong impact.



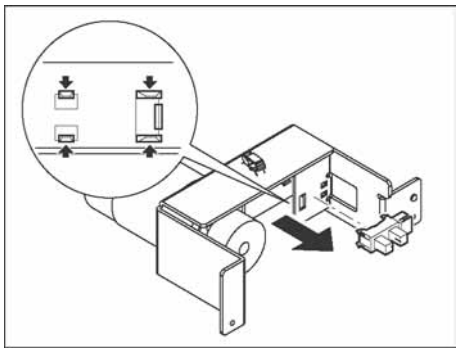
3 Place the sub scan unit upside down and remove the connectors (JP58) and (JP35).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



4 Remove the bracket.

- Two screws (M3×6)



5 Push the tab on the back of the sensor inward and remove the photo sensor.

6 Insert a new photo sensor in the mounting hole.

7 Install the bracket removed in step 4.

- Two screws (M3×6)

Fix so that the positioning hole in the bracket aligns with the emboss on the mating part.

8 Connect the connectors (JP58) and (JP35) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

9 Refer to step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)" and install the exposure unit.

10 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

11 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the Sub Scan Nip HP sensor.

7.13 Replacing V-sync Sensor

Replace the photo sensor that detects film transportation in the sub scan unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

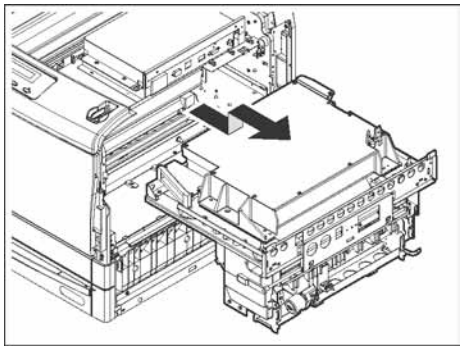
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

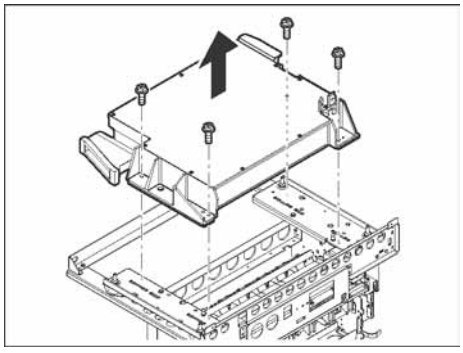
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



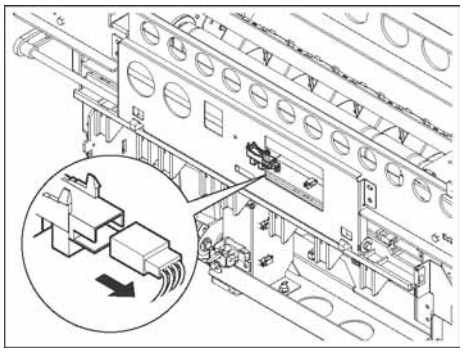
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



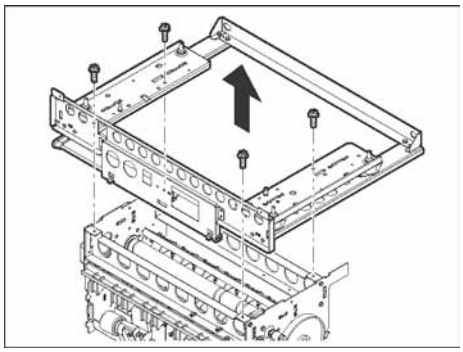
2 Refer to step 2 and 3 in "8.2 Replacing Exposure Unit (Page 8-3)" and remove the exposure unit.

> **Caution** The exposure unit includes optical parts.
> Be careful not to subject to a strong impact.



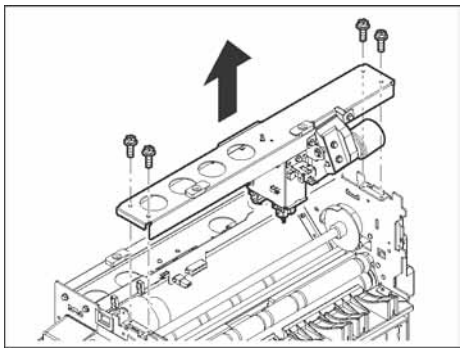
3 Remove the connector (JP10).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



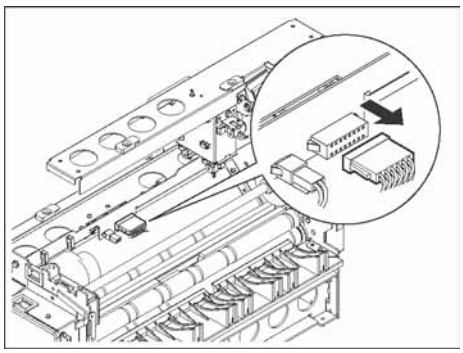
4 Remove the exposure unit mounting frame unit assembly.

• Four screws (M4×6)



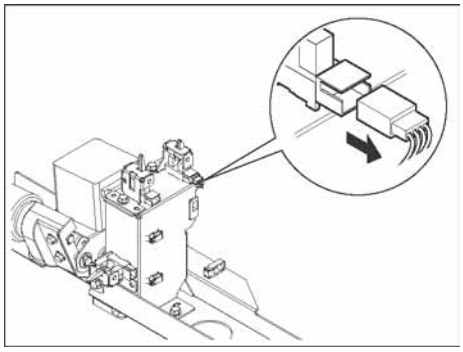
5 Place the sub scan unit upside down and remove the steel plate.

• Four screws (M3×6)



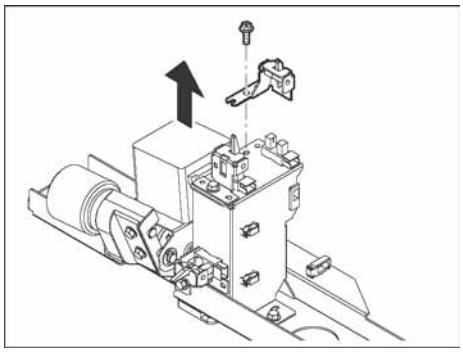
6 Remove the connector (JJ51).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



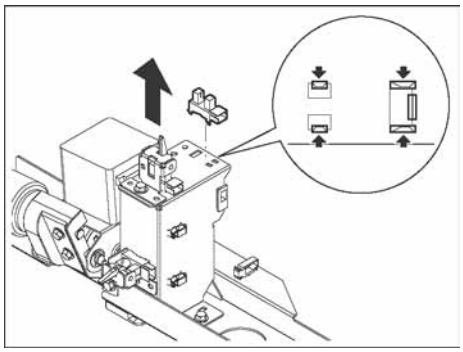
7 Remove the connector (JP34).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



8 Remove the cover.

• One screw (M3×6)



9 Push the tab on the back of the sensor inward and remove the photo sensor.

10 Insert a new photo sensor in the mounting hole.

11 Install the cover removed in step 8.

• One screw (M3×6)

Fix so that the positioning hole in the bracket aligns with the emboss on the mating part.

12 Connect the connector (JP34) removed in step 7.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

13 Connect the connector (JJ51) removed in step 6.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

14 Install the steel plate removed in step 5.

• Four screws (M3×6)

15 Install the exposure unit mounting frame unit assembly removed in step 4.

• Four screws (M4×6)

16 Connect the connector (JP10) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

17 Refer to step 6 and 7 in "8.2 Replacing Exposure Unit (Page 8-3)" and install the exposure unit.

18 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

19 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the V-sync sensor.

■ Work after replacing the V-sync sensor

After replacing the V-sync sensor, perform the following work.

- "14.2.3 Adjusting Sub Scan OFFSET (Vertical) Writing Position (Page 14-16)"

7.14 Replacing Reference Guide

The procedure for replacing the reference guide regulates the film position during transport to align the image position.

> **Caution** Be sure to turn OFF the power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

The number of personnel and the estimated work hours required to replace loading parts is as follows.

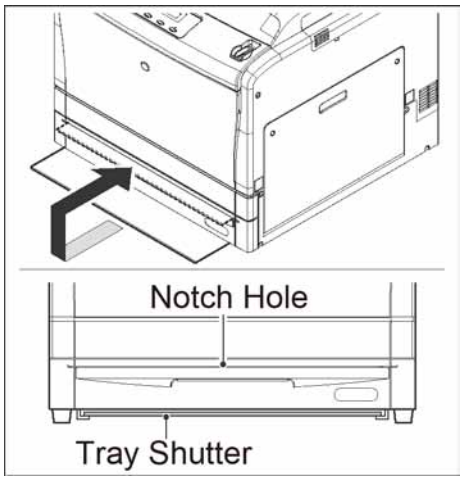
Number of Personnel	Work Hours
1	10 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Reference guide (for replacement)		

■ Removal Procedure

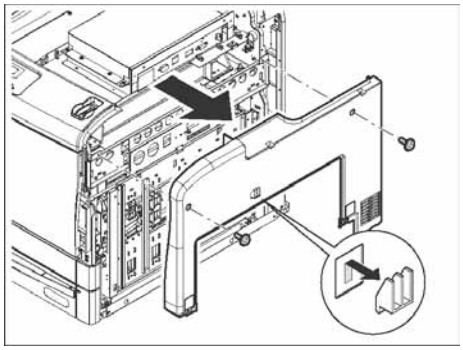


1 Pull the tray shutter out of the lower part of the supply tray.

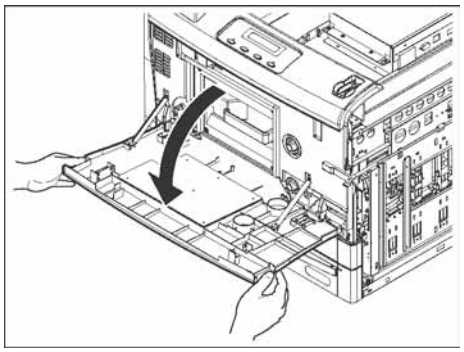
2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



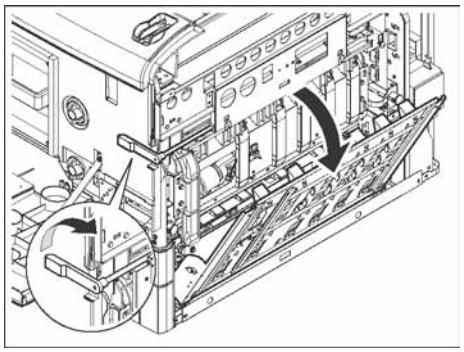
3 Remove the right cover, lower right cover, LAN cover, film ejection tray, connector cover, and the upper right cover with reference to "■ Removal Procedure (Page 3-12)" in"3.3.3 Removing/ Installing Upper Right Cover".



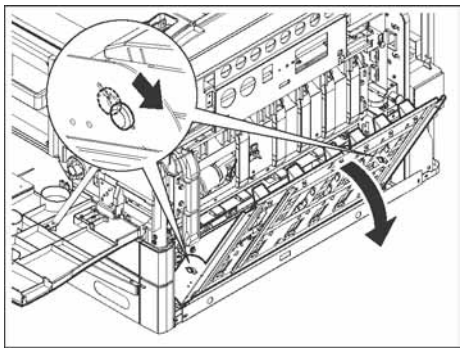
4 Open the front cover.

The front cover will open by pulling the upper part of both sides.

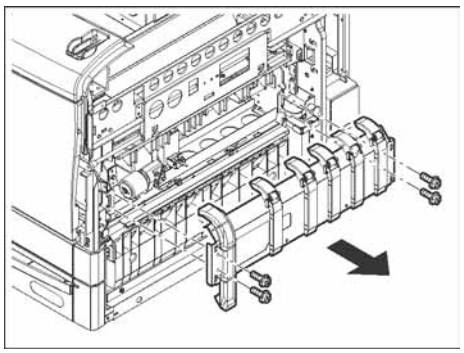
> **Caution** Do not push down or place objects on the opened front cover.
> Failure to observe this caution can cause the front cover to break.



5 Open the external guide assy by rotating the lever B in the direction of an arrow.



6 Open the external guide unit assembly after removing the stop bank at two places.



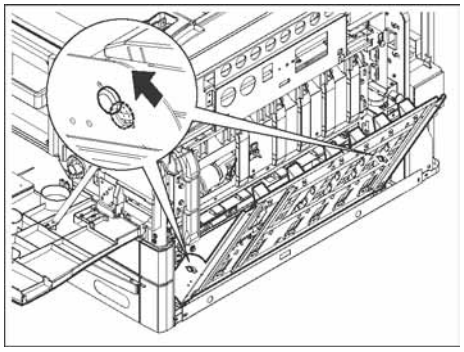
7 Remove the reference guide.

・Four screws (M3×6)

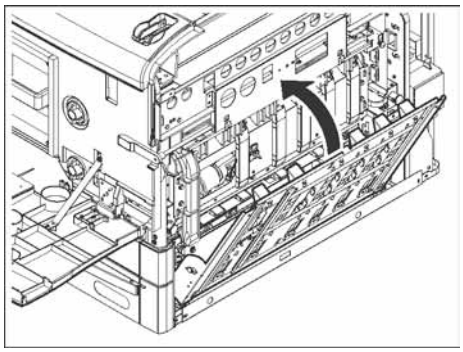
8 Install the new reference guide.

・Four screws (M3×6)

> **Caution** When installing the reference guide, be careful not to come into contact with the position regulation sensor.

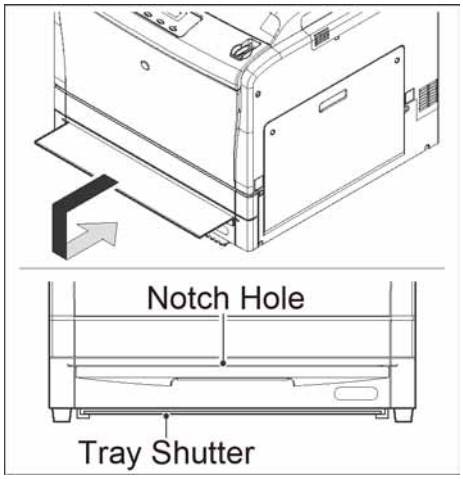


9 Install the guide unit assembly by hooking the stop bands in two locations on the external guide unit assembly.



10 Close the external guide unit assembly.

11 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to "■ Installation Procedure (Page 3-15)" in "3.3.3 Removing/ Installing Upper Right Cover".



12 Put the supply tray back into the main unit.

13 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

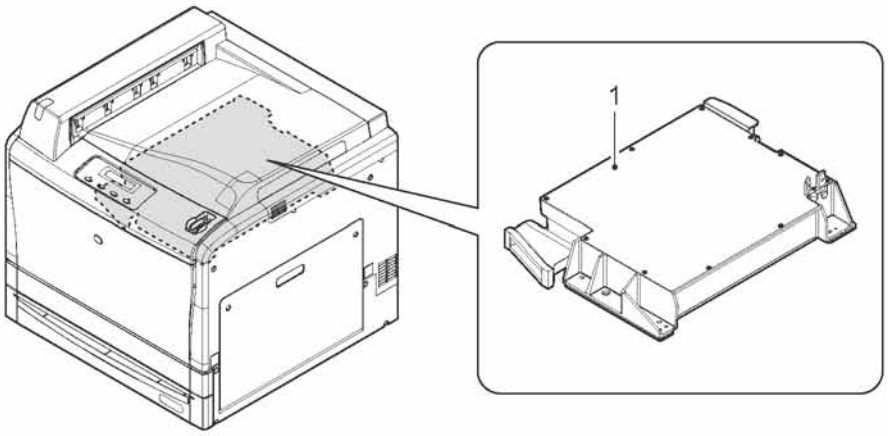
This is the end of the process of replacing the reference guide.

Chapter 8 Replacing Exposure Unit

This chapter describes how to replace the main scan unit.

8.1 Placing Exposure Unit.....8-2
8.2 Replacing Exposure Unit 8-3

8.1 Placing Exposure Unit



No.	Name	Functions and Reference Sections
1	Exposure Unit	This is an optical exposure. For more information, see “8.2 Replacing Exposure Unit (Page 8-3)”.

8.2 Replacing Exposure Unit

Replace the main scan unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

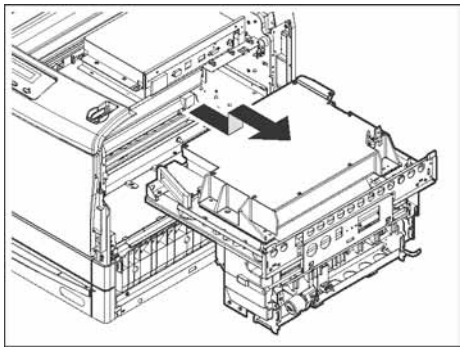
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

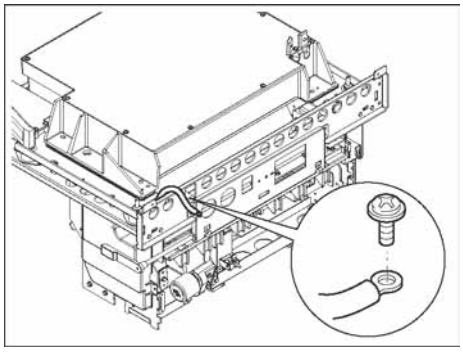
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Exposure Unit (for replacement)		



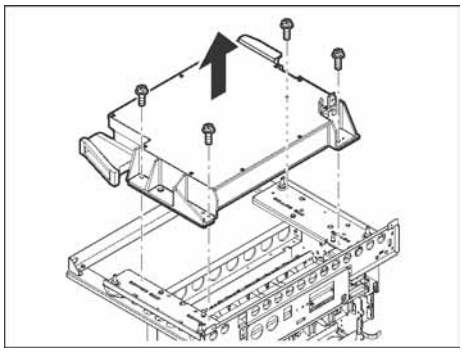
1 Remove the sub scan unit with reference to "■ Removal Procedure (Page 7-4)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - When pulling out the sub scan unit, be careful not to get it hung up on a wire.
> - The sub scan unit weighs approximately 16kg.
> Carefully perform work when unloading the sub scan unit from the main unit or transporting it to work site.
> - If you place the removed sub scan unit on a table, it may become extremely unstable. It should be kept in mind that applying excessive pressure could overturn the unit.



2 Remove the ground wire.

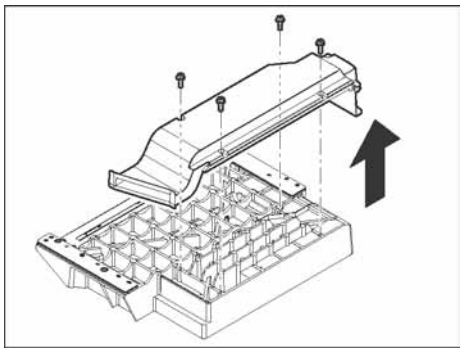
• One screw (M4×8)



3 Remove the exposure unit.

• Four screws (M4×12)

> **Caution** The exposure unit includes optical parts. Be careful not to subject to a strong impact.



4 Remove the duct.

• Four screws (M3×6)

5 Install the duct removed in step 4 on the exposure unit.

• Four screws (M3×6)

> **Note** The values of the label attached to the exposure unit will be set after replacing the unit, so write down the numbers before performing the work.

6 Install the exposure unit on the sub scan unit.

• Four screws (M4×12)

7 Connect the ground wire disconnected in step 2.

• One screw (M4×8) × 2

8 Install the sub scan unit with reference to "■ Installation Procedure (Page 7-7)" in "7.2 Removing/Installing Sub Scan Unit (Including the Exposure Unit and Position Regulation Unit)".

9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

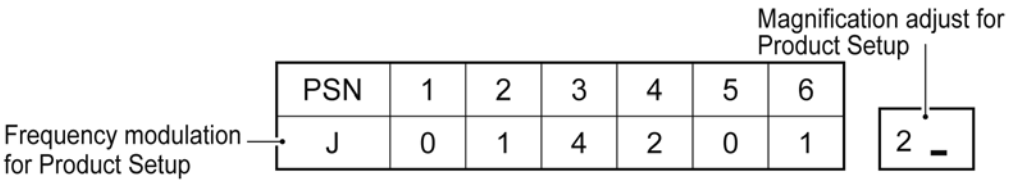
■ Work after replacing the exposure unit

After replacing the exposure unit, perform the following work.

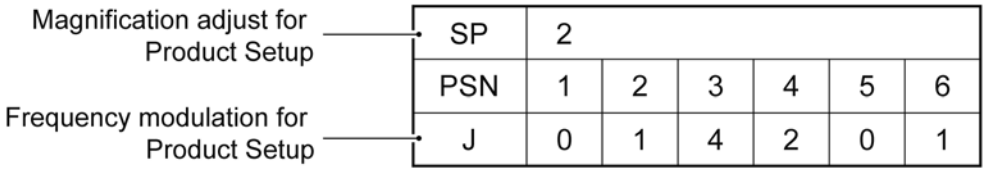
1 Exposure light parameter settings

Set the values of the label attached to the exposure unit using the “Product Setup” screen.

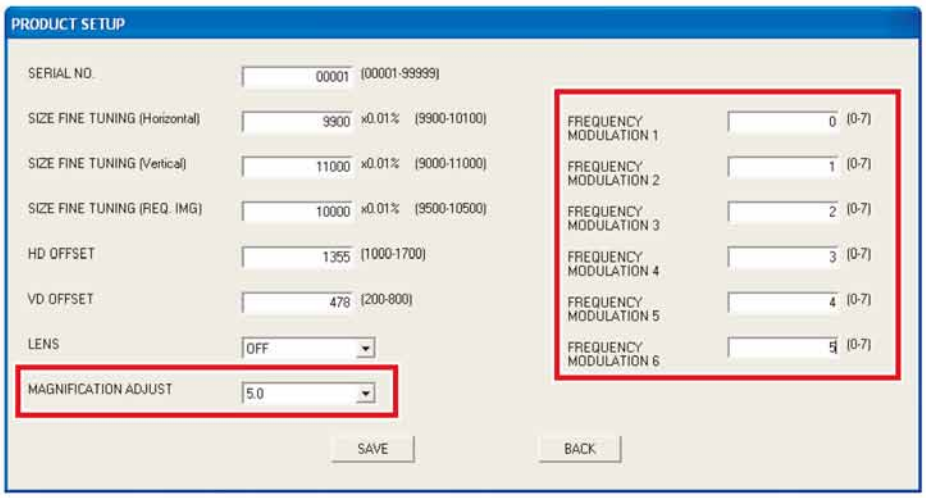
Ex1) exposure unit label



Ex2) exposure unit label



Ex) “PRODACT SETUP” screen setup



- Set the magnification correction to “2”
- Set the frequency modulation data 1 to “0”
- Set the frequency modulation data 2 to “1”
- Set the frequency modulation data 3 to “4”
- Set the frequency modulation data 4 to “2”
- Set the frequency modulation data 5 to “0”
- Set the frequency modulation data 6 to “1”

Note

Refer to “15.17 Product Setup (Page 15-37)” concerning the setup method for the “Product Settings” screen.

2 Perform image unevenness correction.

For details, refer to “14.1 Image Unevenness Correction (Page 14-2)”.

3 Check and adjust the image writing position.

For details, refer to “14.2 Checking and Adjusting Image Data Writing Position (Page 14-13)”.

4 Check and fine tune the printing size.

For more information, see “14.3 Checking and Fine Tuning the Print Size (Page 14-17)”.

This is the end of the process of replacing the exposure unit.

Chapter 9 Replacing Loading Parts in Heat Process Unit

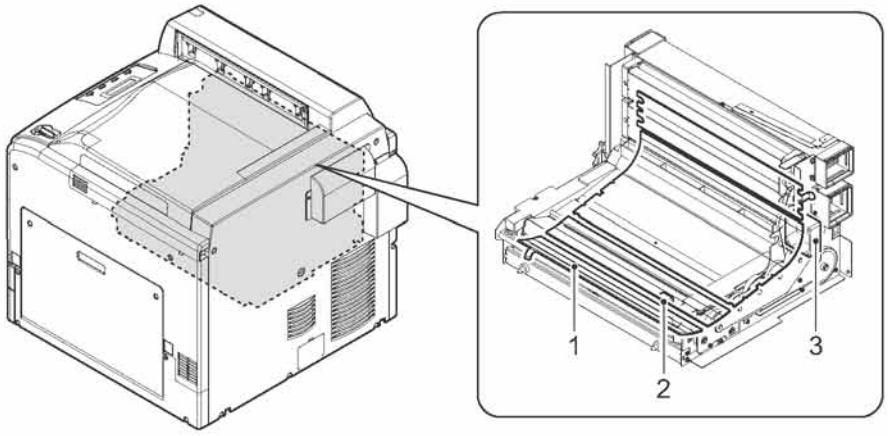
This chapter describes how to replace loading parts in the heat process unit when they fail and how to adjust after replacing the loading parts.

9.1 Heat Process Unit Side 9-2
- 9.1.1 Removing/Installing Heat Process Unit 9-3
- 9.1.2 Replacing Heater 9-7
- 9.1.3 Replacing Heat Process Temperature Sensor 9-8
- 9.1.4 Replacing Supply Cooling Fan 9-9

9.2 Main Unit Side 9-11
- 9.2.1 Replacing Heat Process Motor 9-12
- 9.2.2 Replacing Heat Process Cooling Fans 1 and 2 9-14
- 9.2.3 Replacing Deodorant Filter Detection Sensor 9-16
- 9.2.4 Replacing Insulation Unit Fan 9-18
- 9.2.5 Replacing Deodorant Fan 9-20
- 9.2.6 Replacing Internal Temperature Sensor 9-22

9.1 Heat Process Unit Side

The heat process side of the heat process unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Heater	The heater increases or decreases the temperature of the heat process unit. For more information, see "9.1.2 Replacing Heater (Page 9-7)".
2	Heat process temperature sensor	This temperature sensor monitors the temperature of the heater. For more information, see "9.1.3 Replacing Heat Process Temperature Sensor (Page 9-8)".
3	Supply cooling fan	This fan unit cools the supply unit. For more information, see "9.1.4 Replacing Supply Cooling Fan (Page 9-9)".

9.1.1 Removing/Installing Heat Process Unit

This section describes the procedure for removing or installing the heat process unit when replacing loading parts in the heat process unit.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - The heat process unit and the area around it are hot immediately after turning off DRYPRO 832. The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.

Work outline

The number of personnel and the estimated work hours required to replace loading parts is as follows:

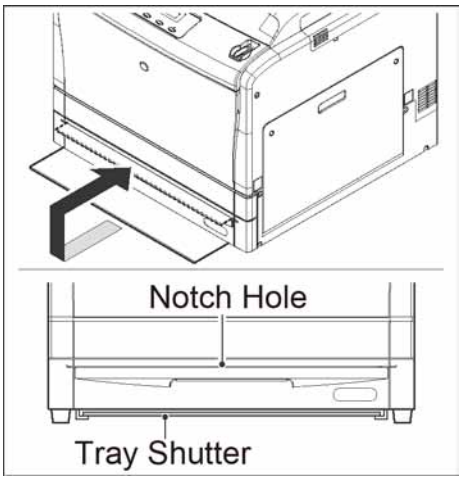
Number of Personnel	Work Hours
1	10 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Cotton work gloves		

■ Removal Procedure

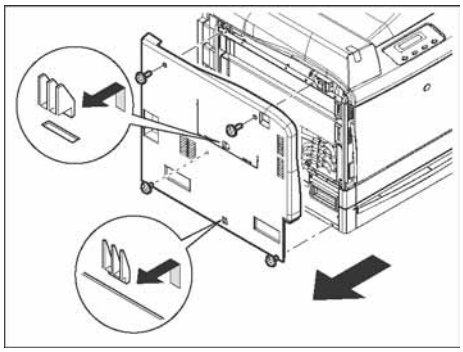


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

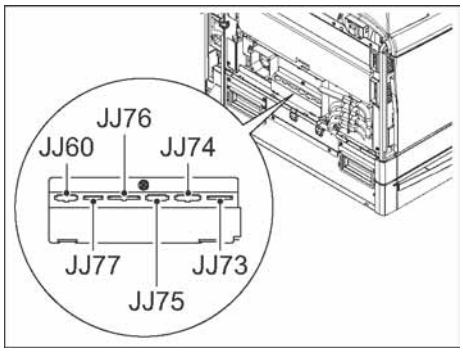


3 Remove the left cover.

• Four screws (M4×8)

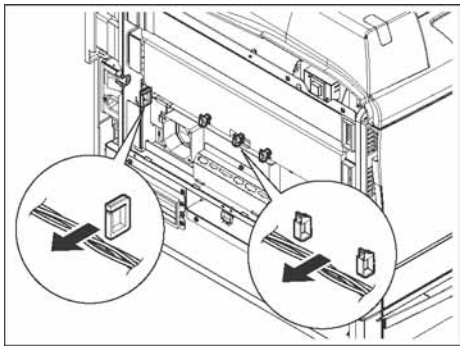
Slide the left cover upward so that the tabs (two locations) on the inside of the left cover detach from the main unit, and remove the cover.

> **Note** Remove two screws on the upper part of the left cover and loosen two screws on the lower part.



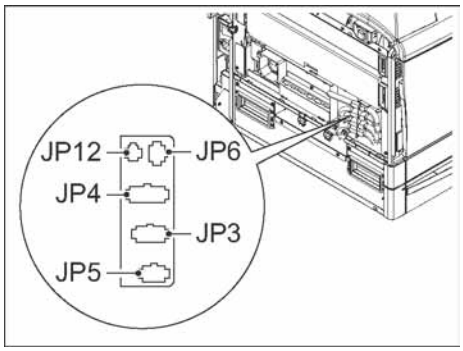
4 Remove the relay connectors (JJ60, JJ73, JJ74, JJ75, JJ76, and JJ77).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



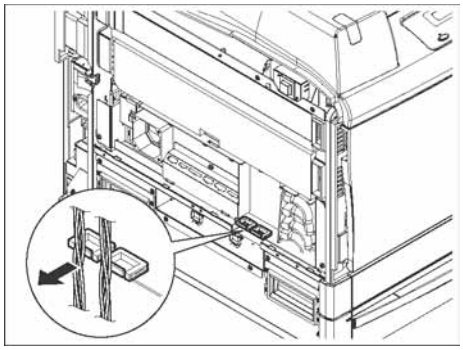
5 Disconnect the wire from the wire saddles.

• Wire saddle in four locations



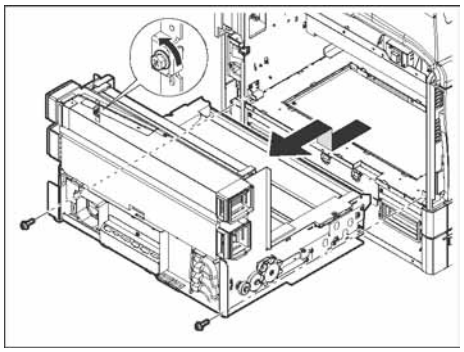
6 Remove the relay connectors (JP3, JP4, JP5, JP6, and JP12).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



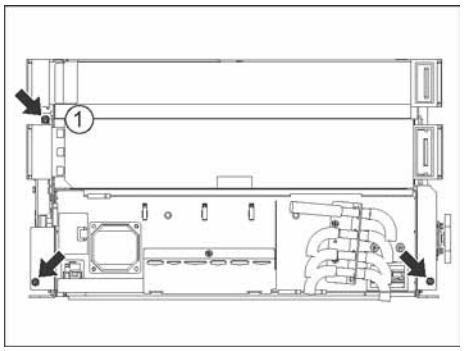
7 Disconnect the wire from the wire saddles.

• Wire saddle in two locations



8 Pull out the heat process unit toward you until it gets caught and slightly lift it to remove.

- Two screws (M3×6)
- One screw (M4×15)



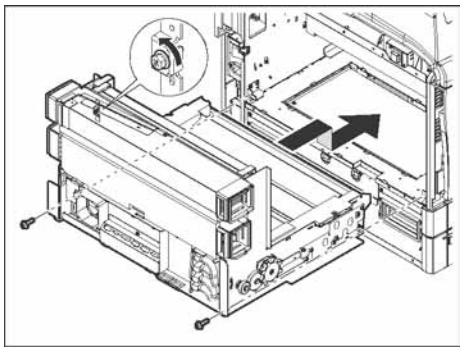
Since the upper left screw (in the left figure) is protected from falling, it cannot be completely removed. (left figure ①)

> **Caution**
> - The heat process unit weighs approximately 15kg. Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.
> - Be very careful, the top of the rack is hot.

This is the end of the process of removing the heat process unit assembly.

- When replacing the heater, go to "9.1.2 Replacing Heater (Page 9-7)".
- When replacing the heat process temperature sensor, go to "9.1.3 Replacing Heat Process Temperature Sensor (Page 9-8)".
- When replacing the supply cooling fan, go to "9.1.4 Replacing Supply Cooling Fan (Page 9-9)".

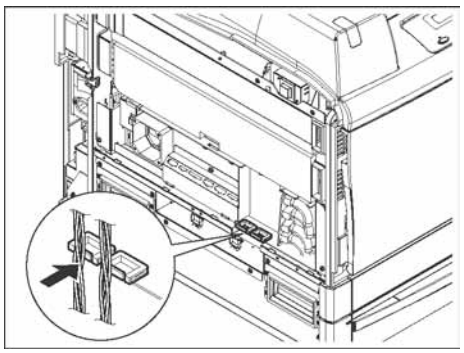
■ Installation Procedure



1 Install the heat process unit on the main unit.

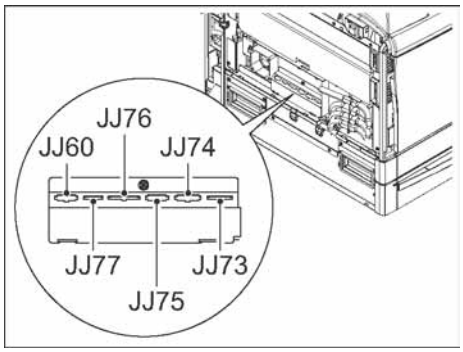
- Two screws (M3×6)
- Two screws (M4×15)

> **Caution**
> The heat process unit weighs approximately 15kg. Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.



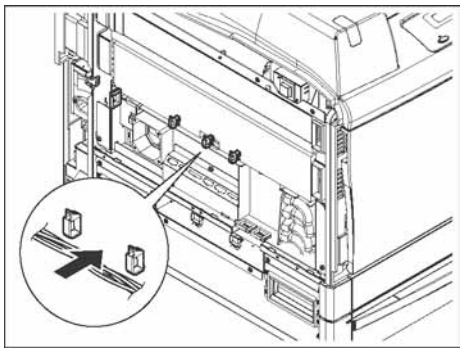
2 Fix the wire with the wire saddles.

- Wire saddle in two locations



3 Connect the relay connectors (JJ60, JJ73, JJ74, JJ75, JJ76, and JJ77).

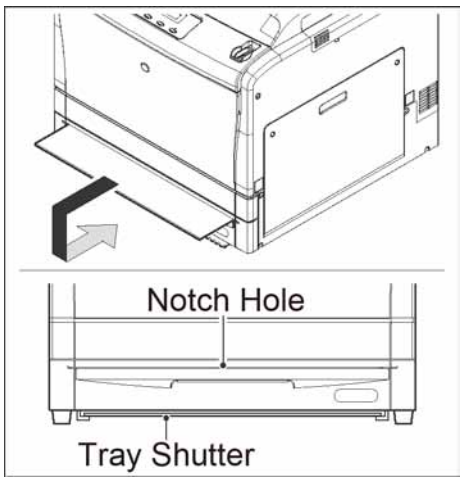
> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



4 Fix the wire with the wire saddles.

- Wire saddle in four locations

5 Install the left cover with reference to "■ Installation Procedure (Page 3-23)" in "3.3.6 Removing/Installing Left Cover".



6 Put the supply tray back into the main unit.

7 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the heat process unit.

9.1.2 Replacing Heater

The heater used for increasing or decreasing the temperature of the heat process unit cannot be replaced singularly. Replace the complete set of the heat process unit.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - The heat process unit and the area around it are hot immediately after turning off DRYPRO 832. The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.

Work outline

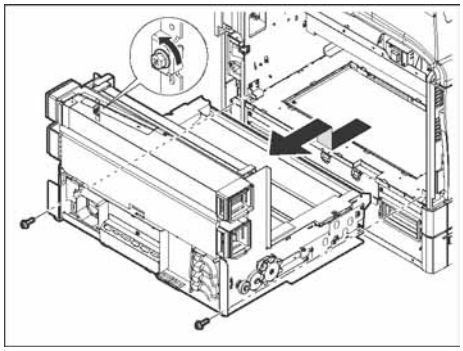
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	A complete set of heat process unit (for replacement)	4	Cotton work gloves



1 Remove the left cover and heat process unit with reference to "■ Removal Procedure (Page 9-3)" in "9.1.1 Removing/Installing Heat Process Unit".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - The heat process unit weighs approximately 15kg. Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.
> - Be very careful, the top of the rack is hot.

2 Replace a complete set of heat process unit removed.

3 Install the heat process unit and left cover with reference to "■ Installation Procedure (Page 9-5)" in "9.1.1 Removing/Installing Heat Process Unit".

4 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the heater.

9.1.3 Replacing Heat Process Temperature Sensor

The temperature sensor that monitors the temperature of the heater cannot be replaced singularly. Replace a complete set of the heat process unit.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - The heat process unit and the area around it are hot immediately after turning off DRYPRO 832. The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.

Work outline

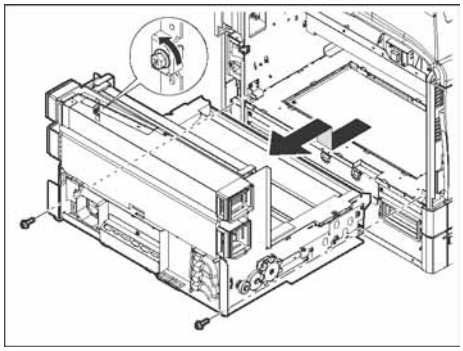
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	A complete set of heat process unit (for replacement)	4	Cotton work gloves



1 Remove the left cover and heat process unit with reference to "■ Removal Procedure (Page 9-3)" in "9.1.1 Removing/Installing Heat Process Unit".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - The heat process unit weighs approximately 15kg.
> Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.
> - Be very careful, the top of the rack is hot.

2 Replace a complete set of heat process unit removed.

3 Install the heat process unit and left cover with reference to "■ Installation Procedure (Page 9-5)" in "9.1.1 Removing/Installing Heat Process Unit".

4 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the heat process temperature sensor.

9.1.4 Replacing Supply Cooling Fan

Replace the fan unit that cools the supply unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

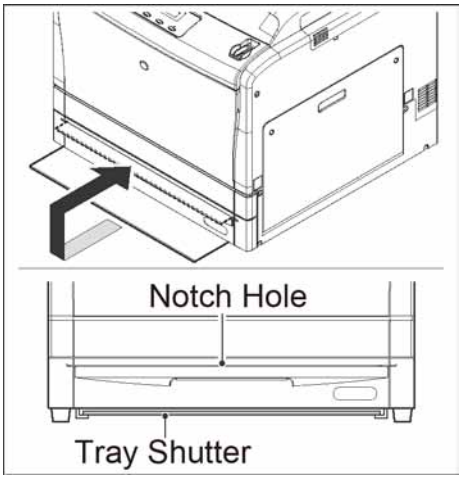
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Fan unit (for replacement)		

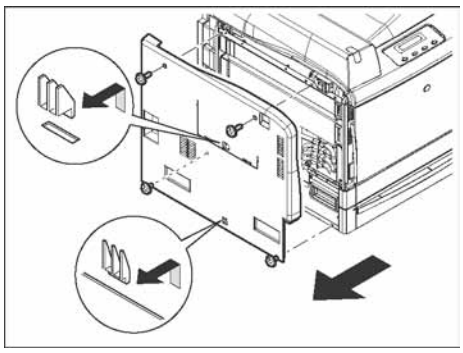


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

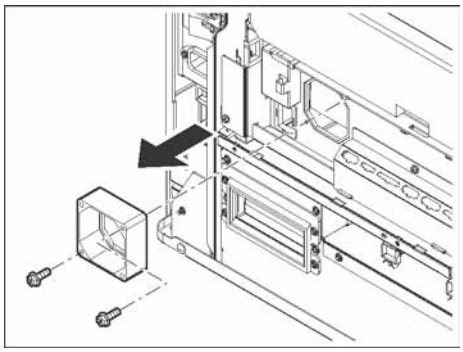


3 Remove the left cover.

• Four screws (M4×8)

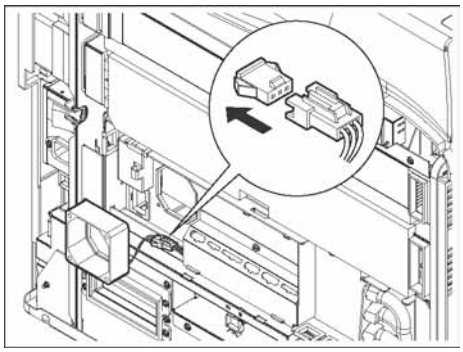
Slide the left cover upward so that the tabs (two locations) on the inside of the left cover detach from the main unit, and remove the cover.

> **Note** Remove two screws on the upper part of the left cover and loosen two screws on the lower part.



4 Remove the supply cooling fan.

- Two screws (M3×30)



5 Remove the connector (JP66).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

6 Install a new supply cooling fan.

- Two screws (M3×30)

7 Connect the connector (JP66) removed in step 5.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

8 Install the left cover with reference to "■ Installation Procedure (Page 3-23)" in "3.3.6 Removing/Installing Left Cover".

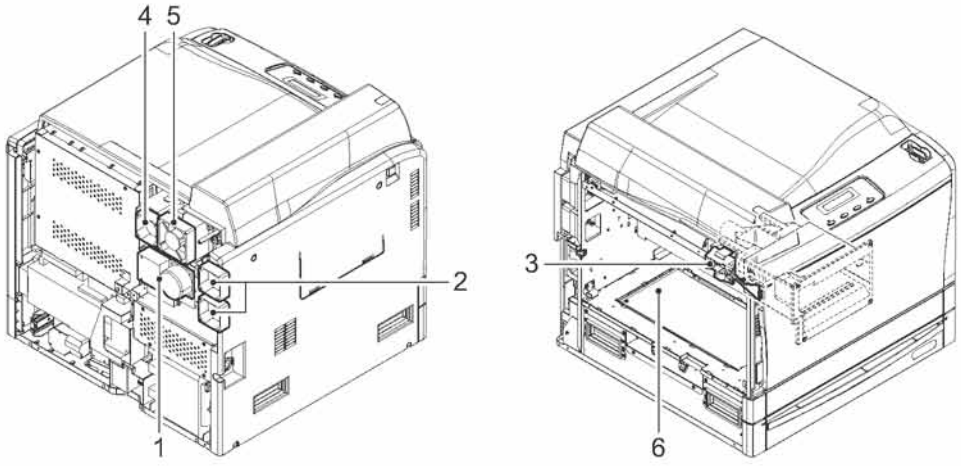
9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the supply cooling fan.

9.2 Main Unit Side

The main unit side of the heat process unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Heat process motor	This motor drives the opposed roller. For more information, see "9.2.1 Replacing Heat Process Motor (Page 9-12)".
2	Heat process cooling fans 1 and 2	This fan unit cools the heat process unit. For more information, see "9.2.2 Replacing Heat Process Cooling Fans 1 and 2 (Page 9-14)".
3	Deodorant filter detection sensor	This photo sensor detects presence or absence of the Deodorant filter. For more information, see "9.2.3 Replacing Deodorant Filter Detection Sensor (Page 9-16)".
4	Insulation unit fan	This fan unit cools the insulation unit. For more information, see "9.2.4 Replacing Insulation Unit Fan (Page 9-18)".
5	Deodorant fan	This fan unit is used to remove the odor from the inside of the main unit. For more information, see "9.2.5 Replacing Deodorant Fan (Page 9-20)".
6	Internal temperature sensor	This temperature sensor monitors the temperature inside the supply tray. For more information, see "9.2.6 Replacing Internal Temperature Sensor (Page 9-22)".

9.2.1 Replacing Heat Process Motor

Replace the motor that drives the opposed roller.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

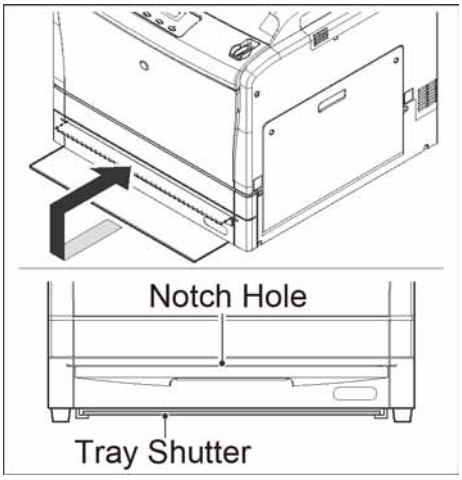
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Heat process motor unit (for replacement)		

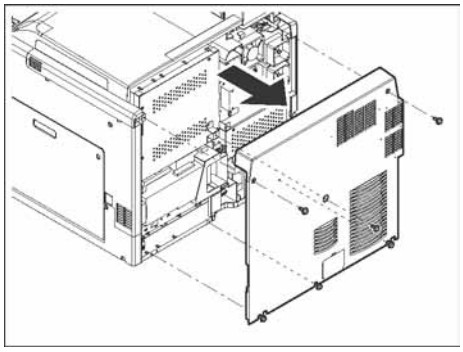


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

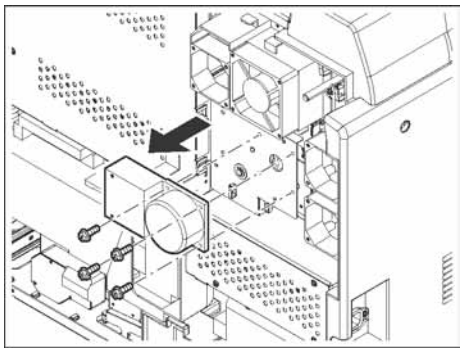
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the rear cover.

• Six screws (M4×8)

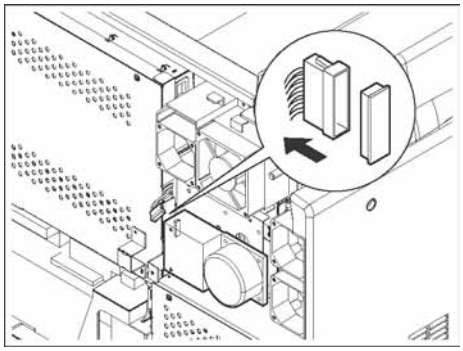
> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.



4 Remove the entire unit of the heat process motor.

• Four screws (M4×8)

Remove the circuit board supports in two positions and take off the entire unit of the heat process motor.



5 Remove the connector (JP46).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

6 Install the entire unit of a new heat process motor.

• Four screws (M4×8)

7 Connect the connector (JP46) removed in step 5.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

8 Install the rear cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the heat process motor.

9.2.2 Replacing Heat Process Cooling Fans 1 and 2

Replace the fan unit that cools the heat process unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

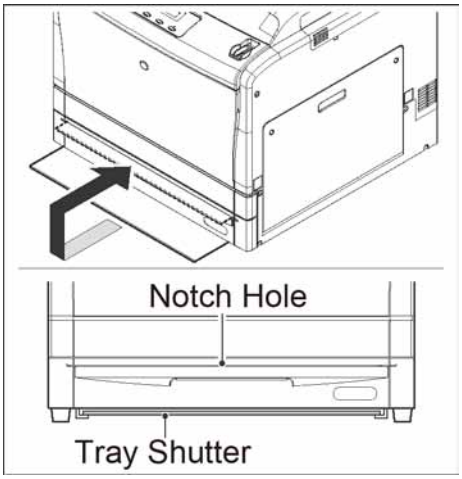
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Fan unit (for replacement)		

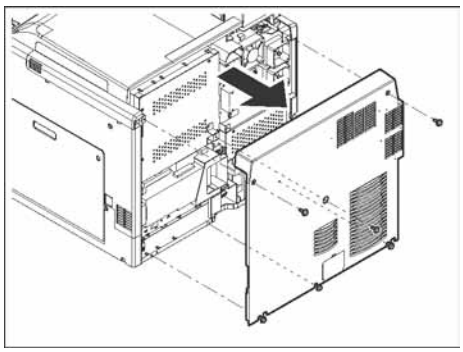


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

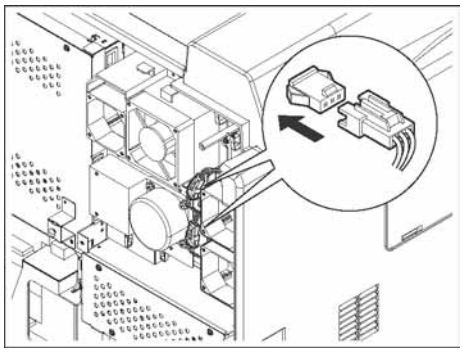
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

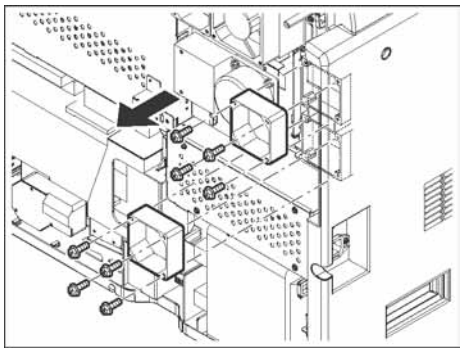


3 Remove the rear cover.

• Six screws (M4×8)

> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.





4 Remove the connector on the side to be replaced.

- Heat process cooling fan 1: connector (JP19)
- Heat process cooling fan 2: connector (JP20)

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

5 Remove the heat process cooling fan on the side to be replaced.

- Four screws (M3×30)

6 Install a new heat process cooling fan.

- Four screws (M3×30)

7 Connect the connector (JP19) or (JP20) removed in step 4.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

8 Install the rear cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the heat process cooling fans 1 and 2.

9.2.3 Replacing Deodorant Filter Detection Sensor

Replace the photo sensor that detects the presence or absence of the deodorant filter.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - The heat process unit and the area around it are hot immediately after turning off DRYPRO 832. The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.

Work outline

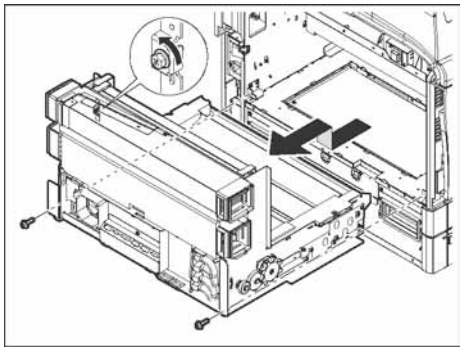
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	15 minutes

Requirements

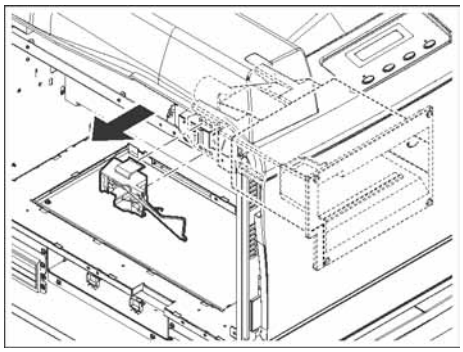
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)	4	Cotton work gloves

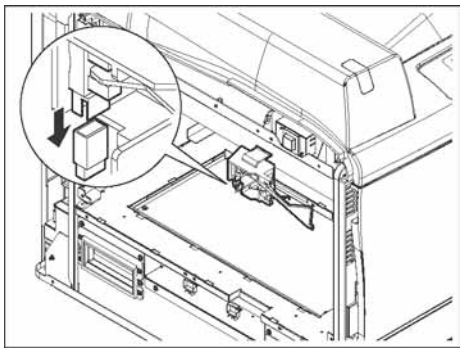


1 Remove the left cover and heat process unit with reference to "■ Removal Procedure (Page 9-3)" in "9.1.1 Removing/Installing Heat Process Unit".

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - The heat process unit weighs approximately 15kg.
> Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.
> - Be very careful, the top of the rack is hot.

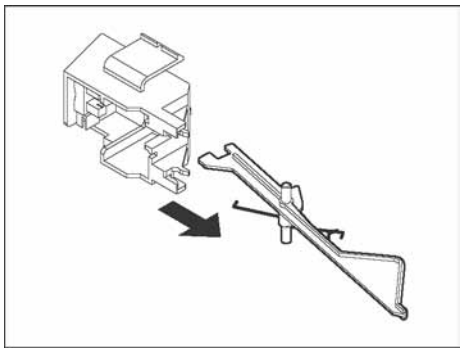


2 Remove the bracket.

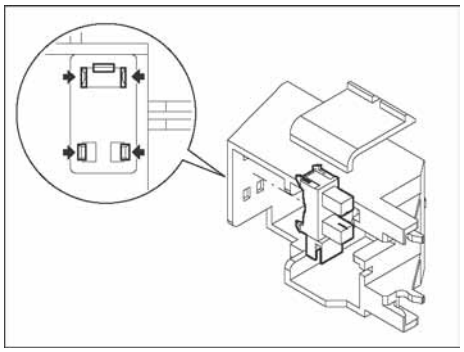


3 Remove the connector (JP8).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



4 Remove the actuator.



5 Push the tab on the back of the sensor inward and remove the photo sensor.

6 Insert a new photo sensor in the mounting hole.

7 Install the actuator removed in step 4.

8 Connect the connector (JP8) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

9 Install the bracket removed in step 2.

10 Install the heat process unit and left cover with reference to "■ Installation Procedure (Page 9-5)" in "9.1.1 Removing/Installing Heat Process Unit".

11 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the Deodorant filter detection sensor.

9.2.4 Replacing Insulation Unit Fan

Replace the fan unit that cools the insulation unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

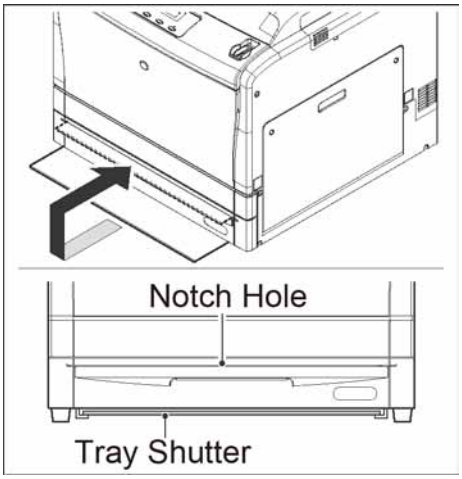
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Fan unit (for replacement)		

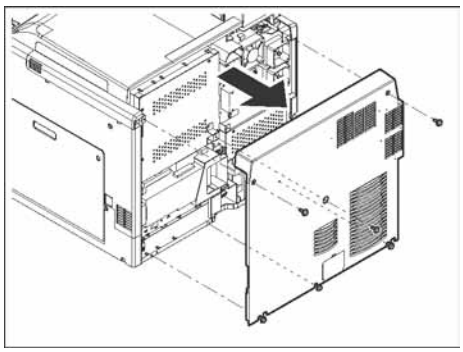


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

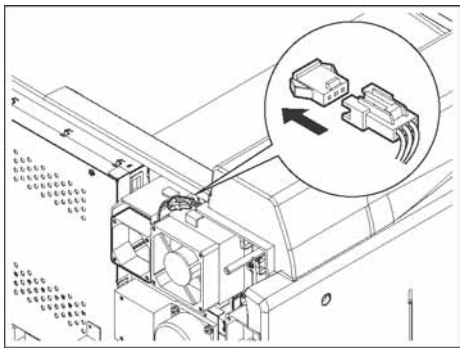
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the rear cover.

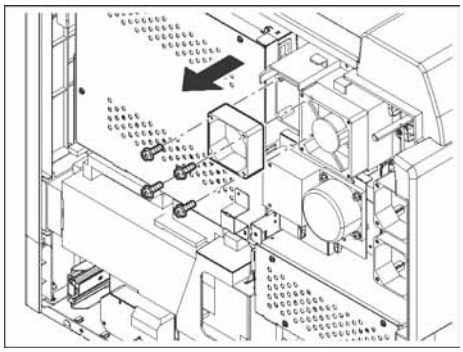
• Six screws (M4×8)

> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.



4 Remove the connector (JP22).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



5 Remove the insulation unit fan.

- Four screws (M3×30)

6 Install a new insulation unit fan.

- Four screws (M3×30)

7 Connect the connector (JP22) removed in step 4.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

8 Install the rear cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the insulation unit fan.

9.2.5 Replacing Deodorant Fan

Replace the fan unit that removes the odor from the inside of the main unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

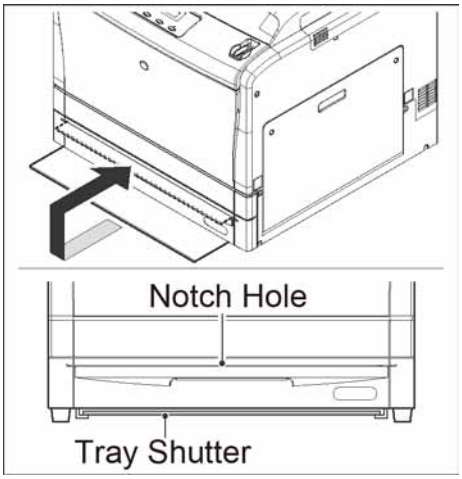
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	5 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Fan unit (for replacement)		

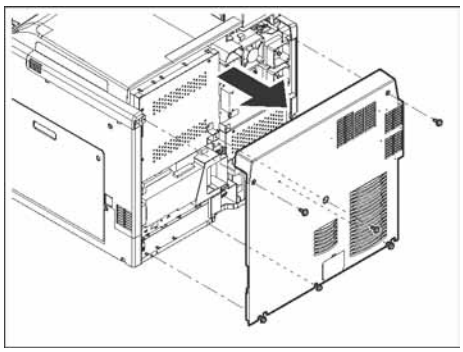


1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

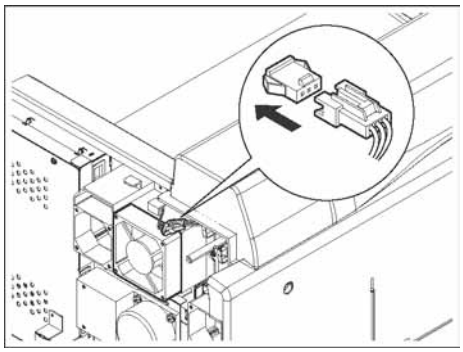
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Remove the rear cover.

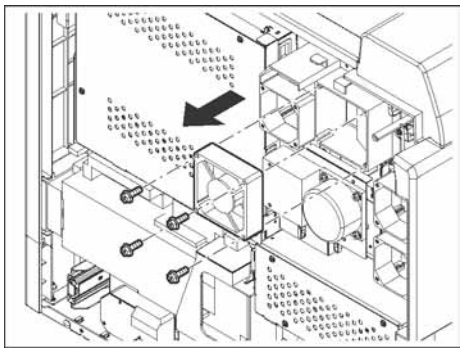
• Six screws (M4×8)

> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.



4 Remove the connector (JP21).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



5 Remove the deodorant fan.

- Four screws (M3×30)

6 Install a new deodorant fan.

- Four screws (M3×30)

7 Connect the connector (JP21) removed in step 4.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

8 Install the rear cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the deodorant fan.

9.2.6 Replacing Internal Temperature Sensor

Replace the temperature sensor that monitors the temperature inside the supply tray.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - The heat process unit and the area around it are hot immediately after turning off DRYPRO 832. The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.

Work outline

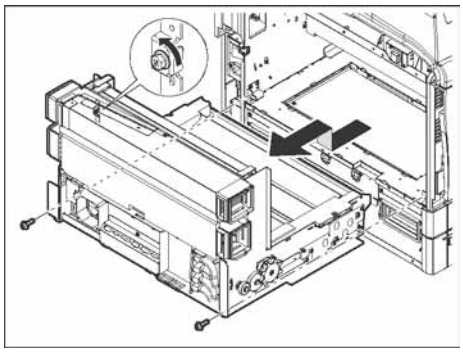
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	20 minutes

Requirements

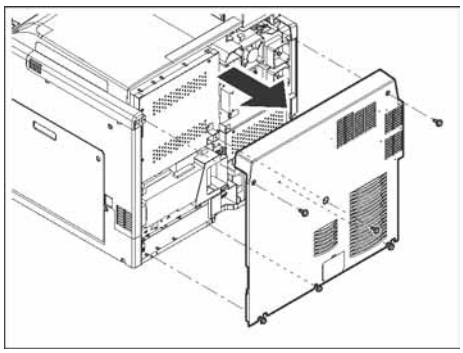
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Internal temperature sensor (for replacement)	4	Nipper
5	Snap band	6	Cotton work gloves



1 Remove the left cover and heat process unit with reference to "■ Removal Procedure (Page 9-3)" in "9.1.1 Removing/Installing Heat Process Unit".

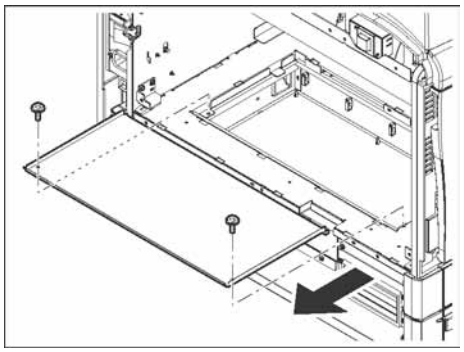
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - The heat process unit weighs approximately 15kg.
> Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.
> - Be very careful, the top of the rack is hot.



2 Remove the rear cover.

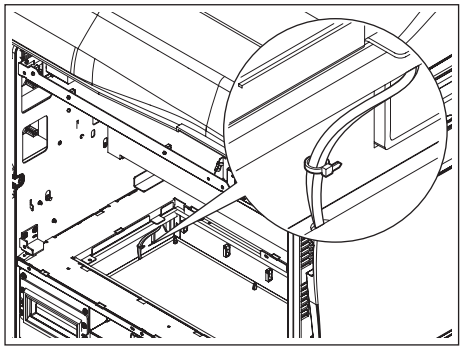
• Six screws (M4×8)

> **Note**
> Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.



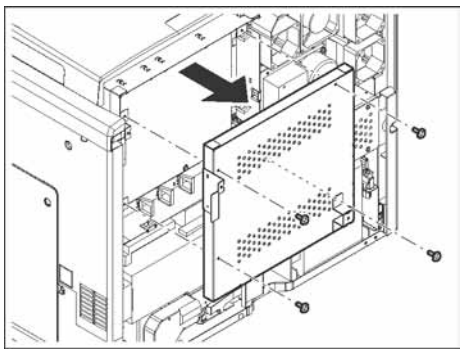
3 Remove the lid from the box where the H-DRV board is housed.

• Two screws (M3×6)



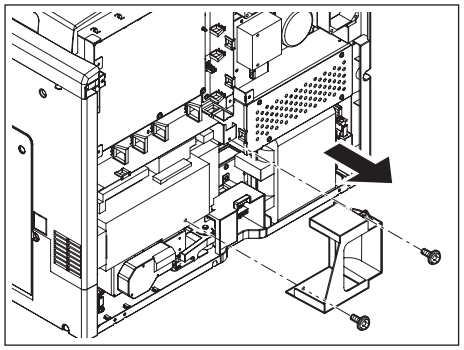
4 Cut the snap band that fixing the internal temperature sensor with a nipper.

> **Caution** Pick up broken pieces of the cut snap band from the back of the main unit or they will fall into the supply side.



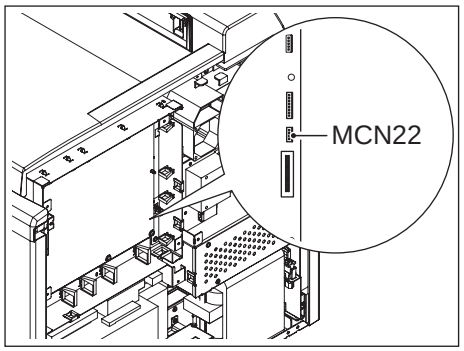
5 Remove the MEC (mechanical control) box cover.

• Four screws (M3×6)



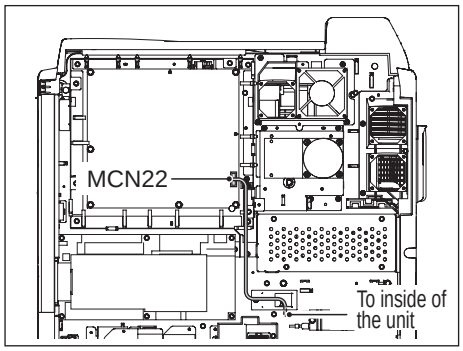
6 Remove the duct.

• Two screws (M3×6)



7 Disconnect the connector (MCN22) from the MEC (mechanical control) board.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers. Pulling by the wires too tightly can cause a break.

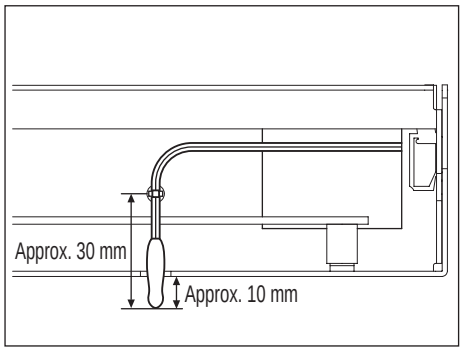


8 Remove the internal temperature sensor.

The interconnection of the internal temperature sensor is wired as in the left figure.

9 Connect a new internal temperature sensor connector (MCN22) to the MEC board and pull the wire into the inside of the unit.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.



10 Adjust the internal temperature sensor to the position shown in the left figure and fix it with the snap band.

11 Install the duct removed in step 6.

- Two screws (M3×6)

12 Install the MEC box cover removed in step 5

- Four screws (M3×6)

13 Install the lid removed in step 3 to the box where the H-DRV board is housed.

- Four screws (M3×6)

14 Install the rear cover removed in step 2.

- Six screws (M4×8)

15 Install the heat process unit and the left cover with reference to "■ Installation Procedure (Page 9-5)" in "9.1.1 Removing/Installing Heat Process Unit".

16 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

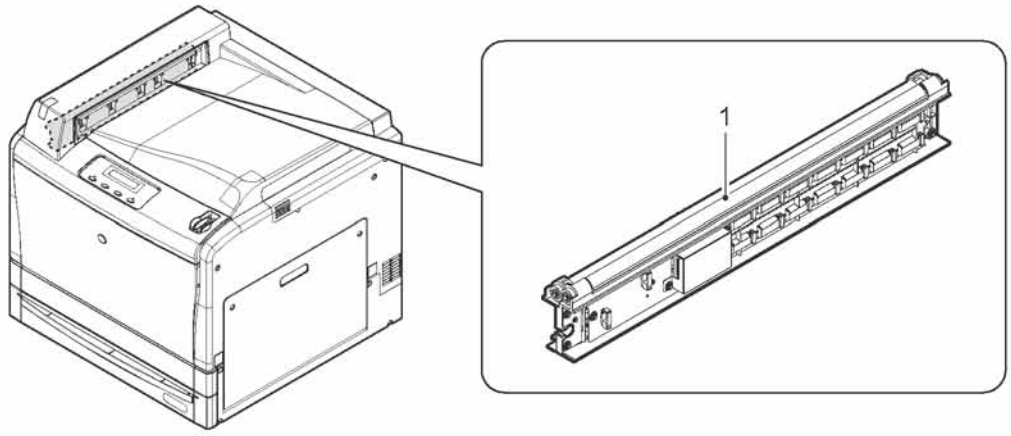
This is the end of the process of replacing the internal temperature sensor.

Chapter 10 Replacing Ejection Unit

This chapter describes how to replace the ejection unit.

10.1 Placing Ejection Unit.....10-2
10.2 Replacing Ejection Unit.....10-3

10.1 Placing Ejection Unit



No.	Name	Functions and Reference Sections
1	Ejection unit	This unit ejects film. For more information, see “10.2 Replacing Ejection Unit (Page 10-3)”.

10.2 Replacing Ejection Unit

Replace the ejection unit that ejects film.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

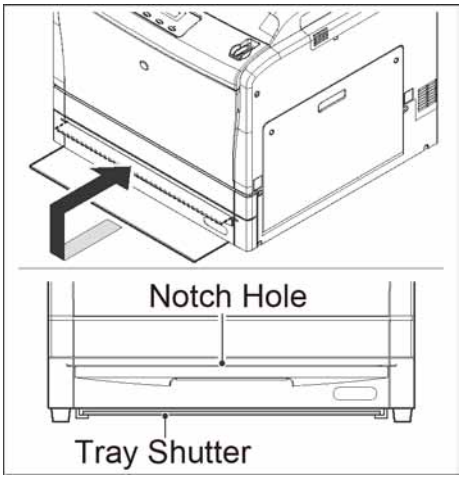
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Ejection unit (for replacement)		

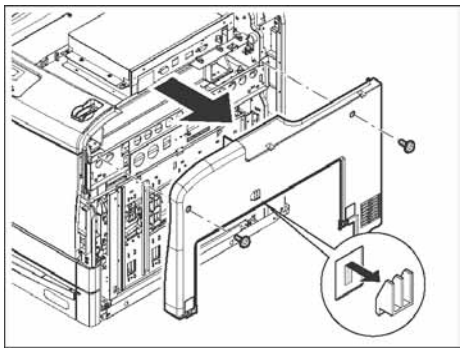


1 Pull the tray shutter out of the lower part of the supply tray.

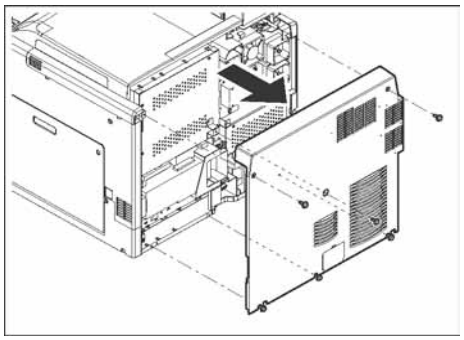
2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



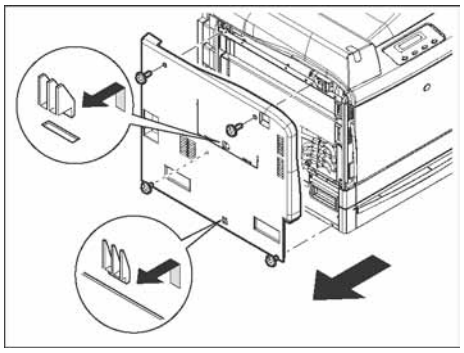
3 Remove the right cover, lower right cover, LAN cover, film ejection tray, connector cover, and the upper right cover with reference to "■ Removal Procedure (Page 3-12)" in "3.3.3 Removing/ Installing Upper Right Cover".



4 Remove the rear cover.

• Six screws (M4×8)

> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.

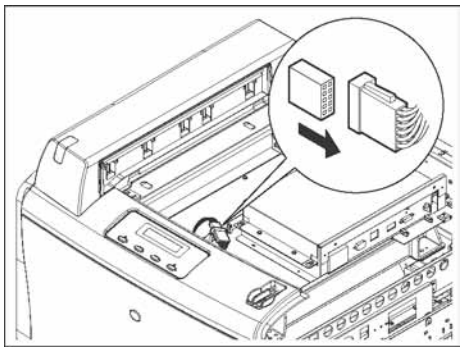


5 Remove the left cover.

• Four screws (M4×8)

Slide the left cover upward so that the tabs (two locations) on the inside of the left cover detach from the main unit, and remove the cover.

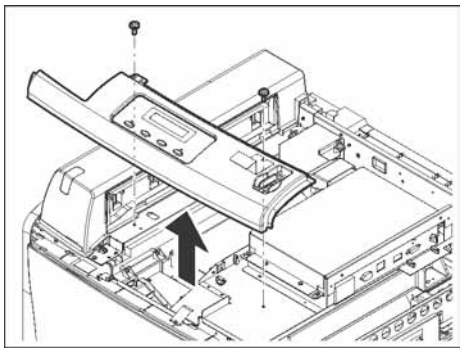
> **Note** Remove the two screws on the upper part of the left cover and loosen two screws on the lower part.



6 Disconnect the connector (OCN1) connected to the operation panel.

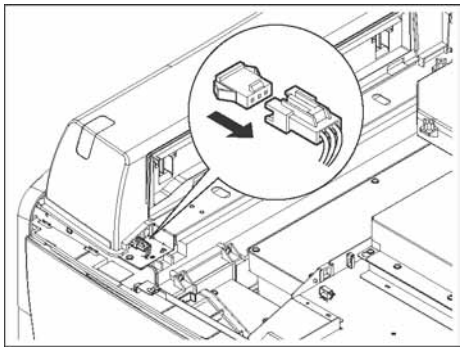
> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

> **Note** To make it easy to disconnect the connector, remove wire from the clamps and wire saddle.



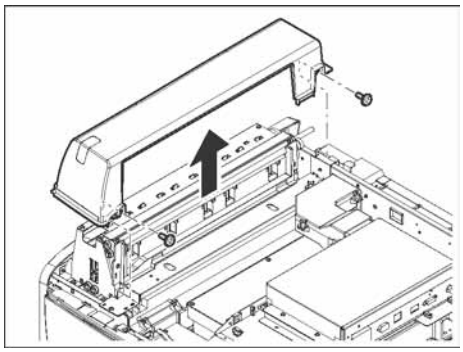
7 Remove the exterior of the operation panel.

• Two screws (M4×8)



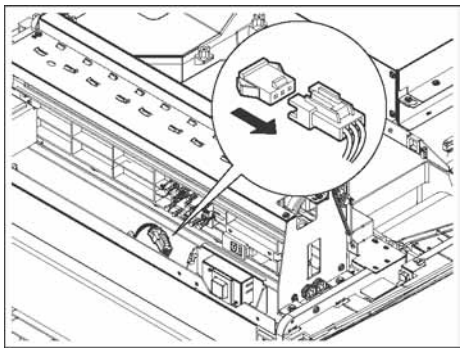
8 Remove the relay connector (JJ27).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



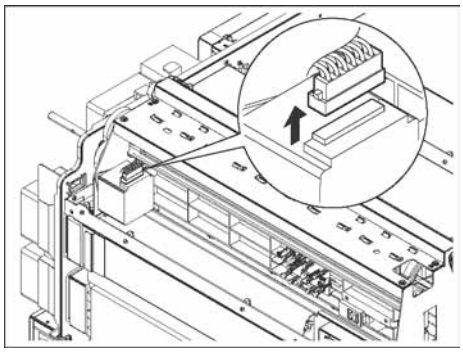
9 Remove the ejection unit cover.

- Two screws (M4×8)



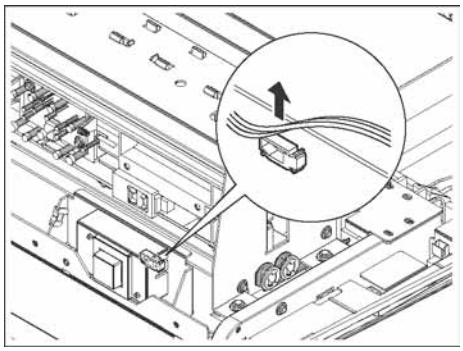
10 Remove the relay connector (JJ17).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



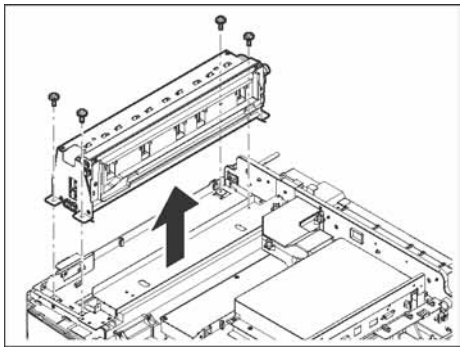
11 Remove the connector (JP47).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



12 Disconnect the connector (JP17) from the wire saddle.

- Wire saddle in one location



13 Remove the ejection unit.

- Four screws (M4×8)

14 Install a new ejection unit.

- Four screws (M3×10)

15 Secure the wire removed in step 12 with the wire saddle.

• Wire saddle in one location

16 Connect the connector (JP47) removed in step 11.

> Caution
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

17 Connect the relay connector (JJ17) removed in step 10.

> Caution
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

18 Install the ejection unit cover removed in step 9.

• Two screws (M4×8)

19 Connect the relay connector (JJ27) removed in step 8.

> Caution
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

20 Install the exterior of the operation panel removed in step 7.

• Two screws (M4×8)

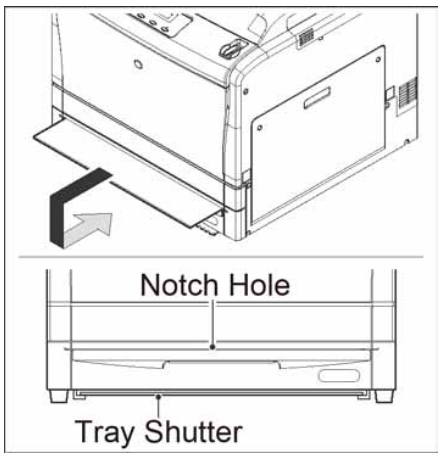
21 Connect the connector (OCN1) removed in step 6.

> Caution
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

22 Install the left cover with reference to "■ Installation Procedure (Page 3-23)" in "3.3.6 Removing/Installing Left Cover".

23 Install the left cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

24 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to "■ Installation Procedure (Page 3-15)" in "3.3.3 Removing/Installing Upper Right Cover".



25 Put the supply tray back into the main unit.

26 Remove the tray shutter and return it to the previous position.

> Caution
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

27 Refer to the"15.20 Densitometer (Page 15-42)" to perform the densitometer calibration.

This is the end of the process of replacing the ejection unit.

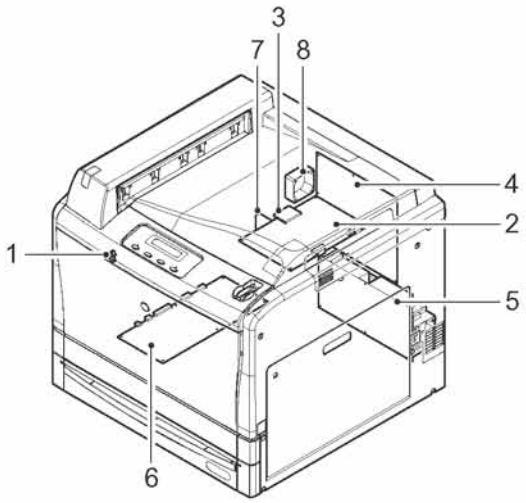
Chapter 11 Replacing Loading Parts in Main Unit

This chapter describes how to replace loading parts in the main unit when they fail and how to adjust after replacing the loading parts.

11.1 Placing Loading Parts 11-2
11.2 Replacing Front Cover Sensor 11-3
11.3 Replacing Main Board 11-7
11.4 Replacing Compact Flash 11-11
11.5 Replacing MEC Board 11-14
11.6 Replacing Multiple Power Supply 11-17
11.7 Replacing H-DRV Board 11-20
11.8 Replacing Noise Filter 11-22
11.9 Replacing Control Cooling Fan 11-25

11.1 Placing Loading Parts

The main unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	Front cover sensor	This photo sensor detects the opening/closing of the front cover. For more information, see “11.2 Replacing Front Cover Sensor (Page 11-3)”.
2	Main board	This main board controls DRYPRO 832. For more information, see “11.3 Replacing Main Board (Page 11-7)”.
3	Compact flash	This compact flash memory retains various setting data. For more information, see “11.4 Replacing Compact Flash (Page 11-11)”.
4	MEC board	This board controls a motor and sensors. For more information, see “11.5 Replacing MEC Board (Page 11-14)”.
5	Multiple power supply	This power supply unit supplies DC voltage. For more information, see “11.6 Replacing Multiple Power Supply (Page 11-17)”.
6	H-DRV board	This board controls the heater in the heat process unit. For more information, see “11.7 Replacing H-DRV Board (Page 11-20)”.
7	Noise filter	This noise filter removes AC voltage noise. For more information, see “11.8 Replacing Noise Filter (Page 11-22)”.
8	Control cooling fan	This fan unit cools the control unit. For more information, see “11.9 Replacing Control Cooling Fan (Page 11-25)”.

11.2 Replacing Front Cover Sensor

Replace the photo sensor that detects the opening or closing of the front cover.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

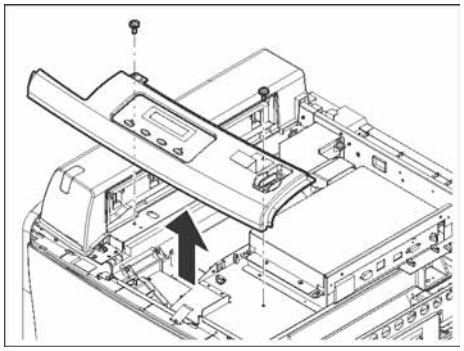
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	20 minutes

Requirements

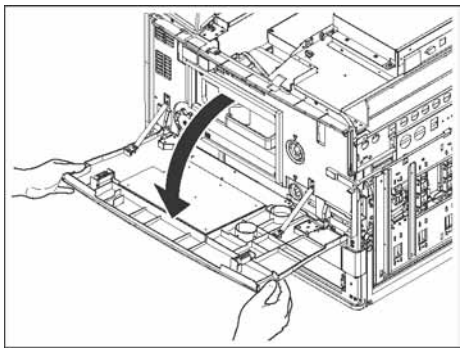
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Photo sensor (for replacement)		



1 Remove the exterior of the operation panel with reference to "12.2 Removing/Installing Exterior of Operation Panel (Page 12-3)".

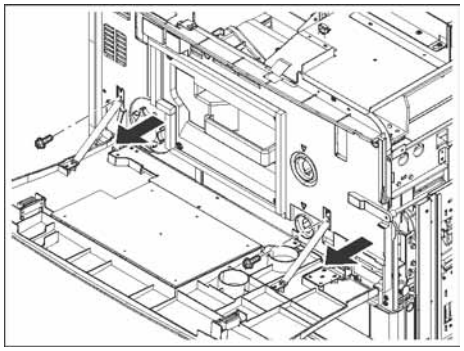
> **Caution** When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.



2 Open the front cover.

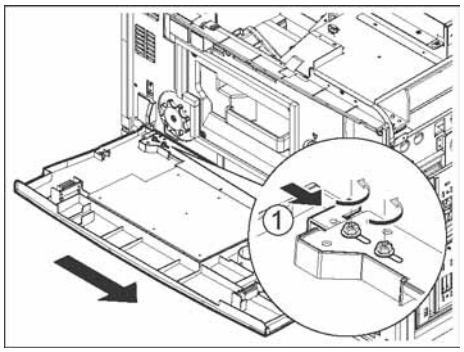
You can open the front cover by pulling both side of the upper part of the cover toward you.

> **Caution** Do not push down the open front cover or put an object on it.
> Failure to observe this caution can cause the front cover failure.



3 Remove the front cover fixing band.

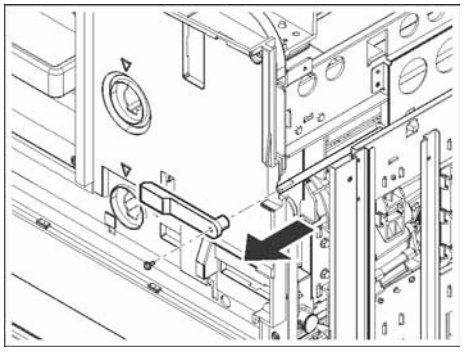
- Two screws (M3×6)



4 Loosen the two front cover fixing screws.

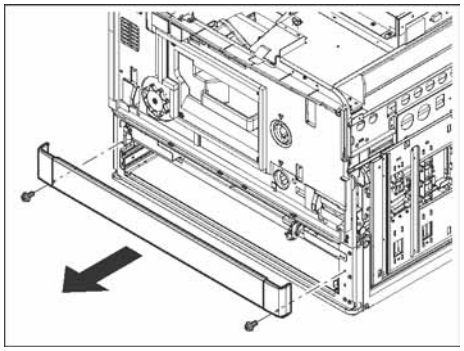
5 Remove the front cover from the hole by sliding to the right.

- Two screws (M3×6)



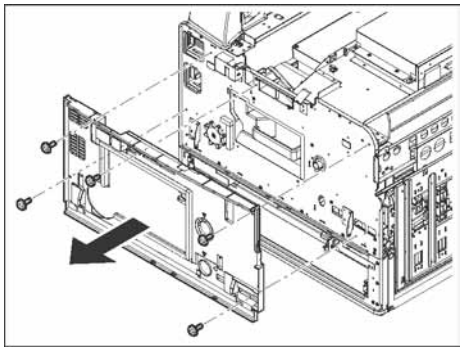
6 Remove the lever B handle.

- One screw (M3×6)



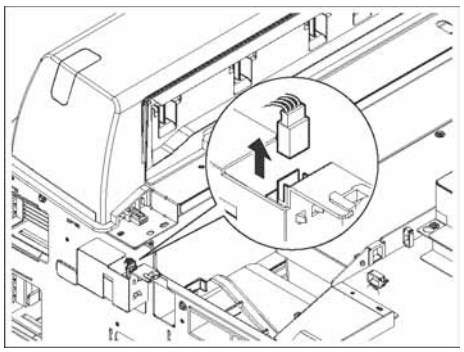
7 Remove the lower front cover.

- Two screws (M3×8)



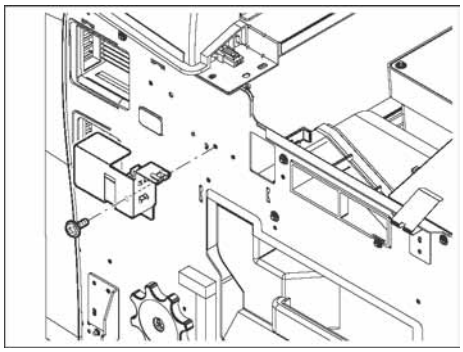
8 Remove the front panel.

- Five screws (M3×6)

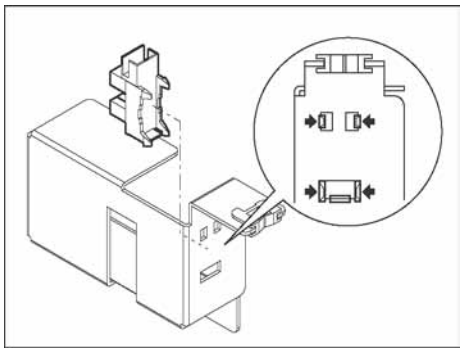


9 Remove the connector (JP9).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



10 Remove the bracket.
- Two screws (M3×6)



11 Push the tab on the back of the sensor inward and remove the photo sensor.

12 Insert a new photo sensor in the mounting hole.

13 Install the bracket removed in step 10.
- Two screws (M3×6)

14 Connect the connector (JP) removed in step 9.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

15 Install the front panel removed in step 8.
- Five screws (M3×6)

16 Install the loser front cover removed in step 7.
- Two screws (M3×8)

17 Install the lever B handle removed in step 6.
- One screw (M3×6)

18 Install the front cover removed in step 5 and tighten the screw loosened in step 4.
- Two screws (M3×6)

19 Install the fixing band removed in step 3.
- Two screws (M3×6)

20 Close the front cover.

21 Install the exterior of the operation panel with reference to “12.2 Removing/Installing Exterior of Operation Panel (Page 12-3)”.

22 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to “■ Installation Procedure (Page 3-15)” in “3.3.3 Removing/Installing Upper Right Cover”.

23 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the front cover sensor.

11.3 Replacing Main Board

Replace the main board that controls DRYPRO 832.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

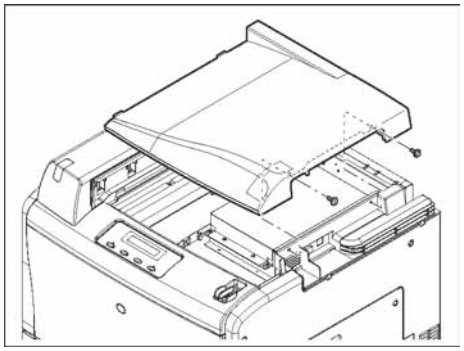
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

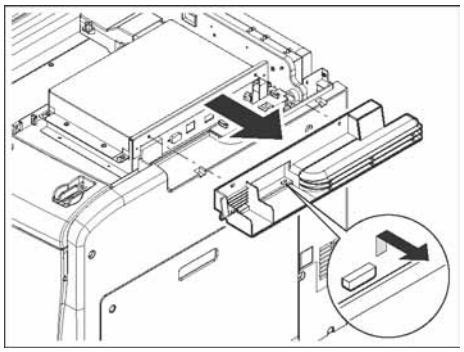
Requirements

The procedure for replacing loading parts requires the following tools:

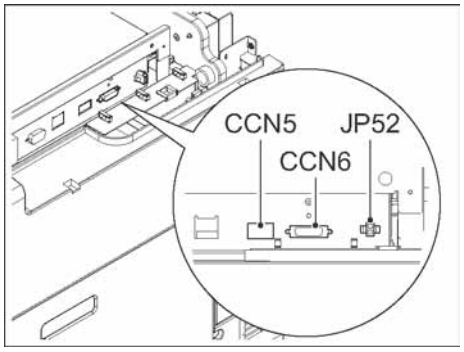
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Main board (for replacement)	4	Grounding strap



1 Remove the LAN cover and film ejection tray with reference to "■ Removal Procedure (Page 3-10)" in "3.3.2 Removing/Installing Film Ejection Tray".



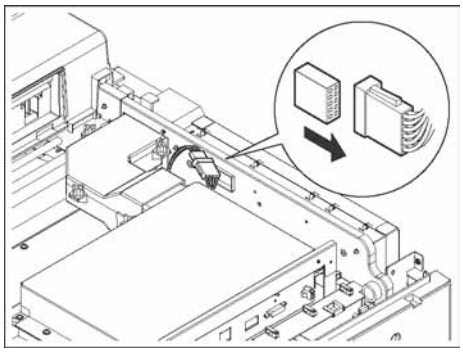
2 Remove the connector cover.



3 Remove connectors from MEC IF (CCN5), exposure IF (CCN6), and power supply (JP52).

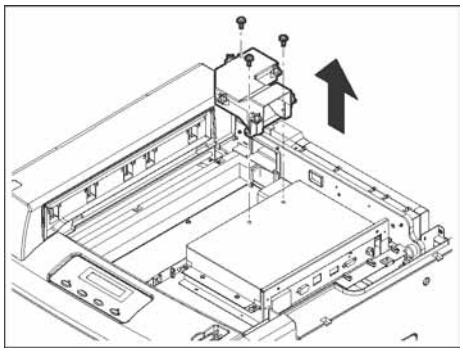
Caution

When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
Pulling by the wires too tightly can cause a break.



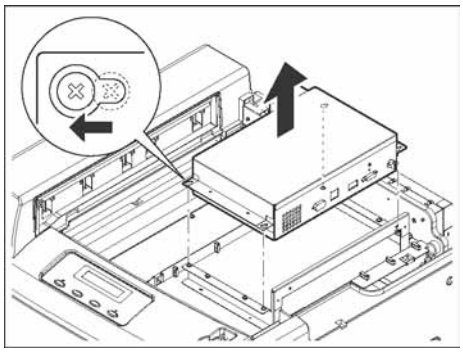
4 Remove the connector (JP24) from the control box DC fan.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



5 Remove the control board duct unit assembly.

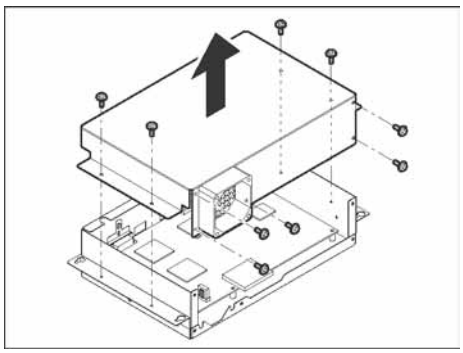
- Three screws (M3×6)



6 Remove the control box assembly.

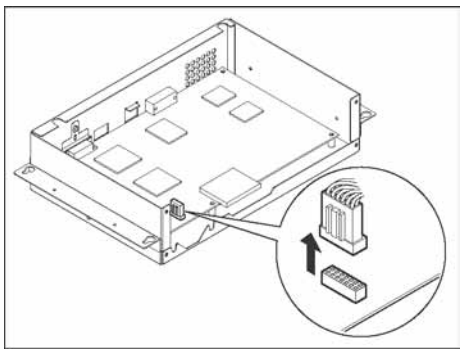
- Four screws (M3×6)

Loosen the screws and remove the control unit by sliding it slightly.



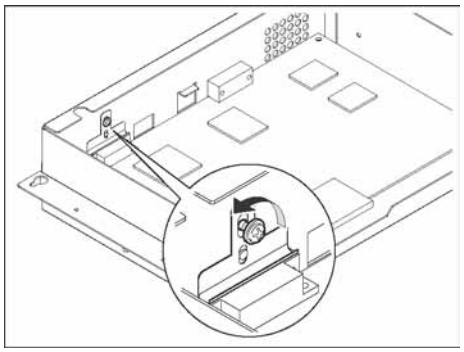
7 Remove the lid from the control box.

- Nine screws (M3×6)



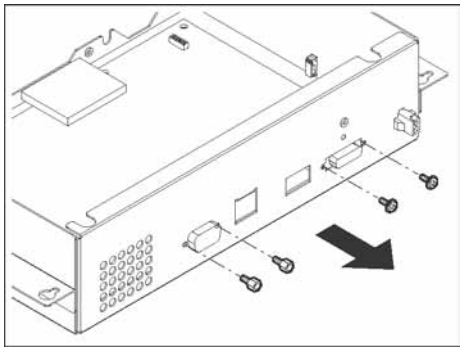
8 Remove the connector (CCN1) from the power supply.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



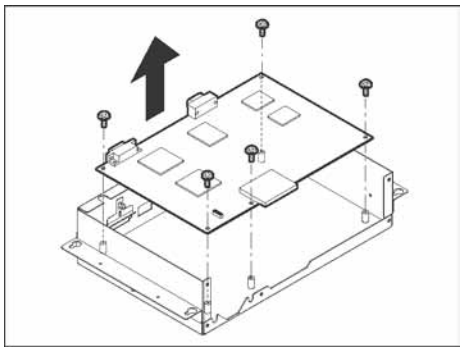
9 Loosen the exposure connector grounding hardware screw.

- One screw (M3×6)



10 Remove hexagonal head screws from the UPS connector and screws from the exposure connector.

- Two hexagonal head screws (M3×6)
- Two screws (M2.6×6)



11 Remove the main board.

- Five screws (M3×6)

12 Install a new main board.

- Five screws (M3×6)

> **Caution** When installing the board, carefully perform work not to bump the components on the back of the board against the stud and damage them.

13 Install the hexagonal head screws on the UPS connector and the screws on the exposure connector removed in step 10.

- Two hexagonal head screws (M3×6)
- Two screws (M2.6×6)

14 Tighten the screws while pressing the exposure connector grounding hardware loosened in step 9 against the connector.

- One screw (M3×6)

15 Connect the connector (CCN1) removed in step 8.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

16 Install the lid removed in step 7 on the control box.

- Nine screws (M3×6)

17 Install the control box assembly removed in step 6.

- Four screws (M3×6)

18 Install the control board duct unit assembly removed in step 5.

- Three screws (M3×6)

19 Connect the connector (JP24) removed in step 4 of the control box DC fan.

> Caution
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

20 Connect the connectors removed in step 3 to MEC IF (CCN5), exposure IF (CCN6), and power supply (JP52).

> Caution
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

21 Install the connector cover removed in step 2.

22 Install the LAN cover and film ejection tray with reference to "■ Installation Procedure (Page 3-11)" in "3.3.2 Removing/Installing Film Ejection Tray".

This is the end of the process of replacing the main board.

11.4 Replacing Compact Flash

Replace the compact flash memory that retains various setting data.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

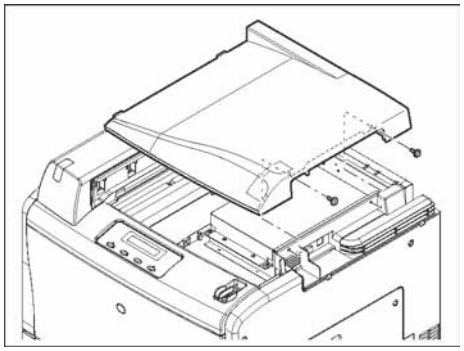
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

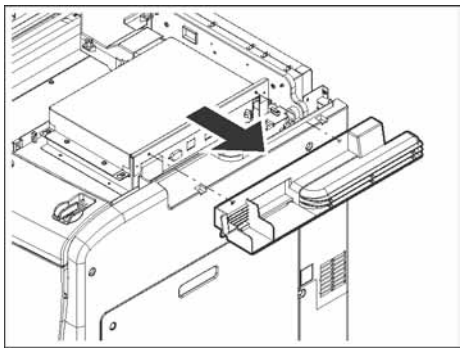
Requirements

The procedure for replacing loading parts requires the following tools:

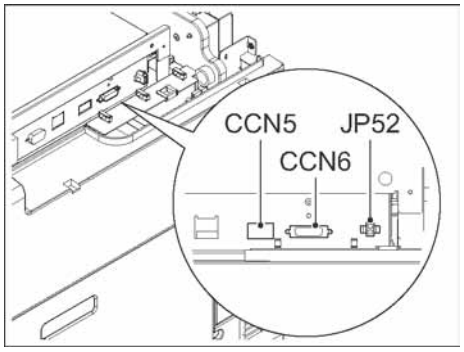
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Compact flash (for replacement)	4	Grounding strap



1 Remove the LAN cover and film ejection tray with reference to "■ Removal Procedure (Page 3-10)" in "3.3.2 Removing/Installing Film Ejection Tray".

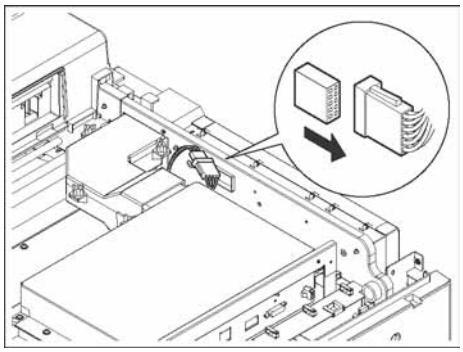


2 Remove the connector cover.



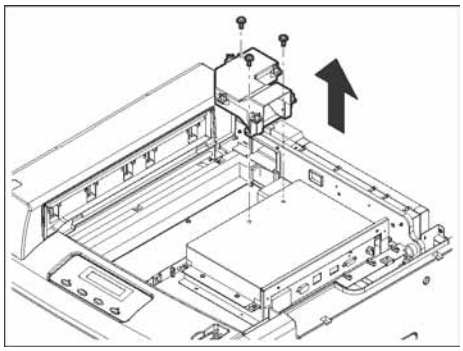
3 Remove connectors from MEC IF (CCN5), exposure IF (CCN6), and power supply (JP52).

> **Caution**
> When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



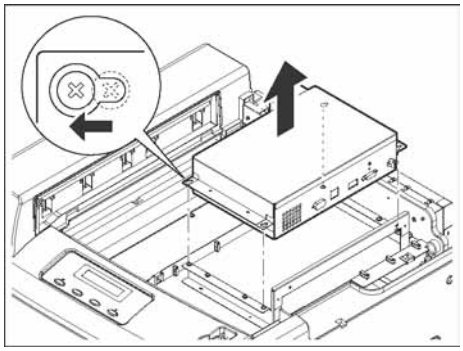
4 Remove the connector (JP24) from the control box DC fan.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



5 Remove the control board duct unit assembly.

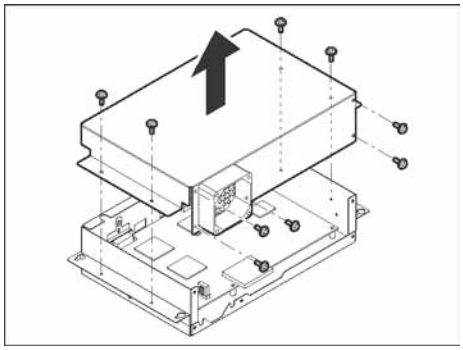
- Three screws (M3×6)



6 Remove the control box assembly.

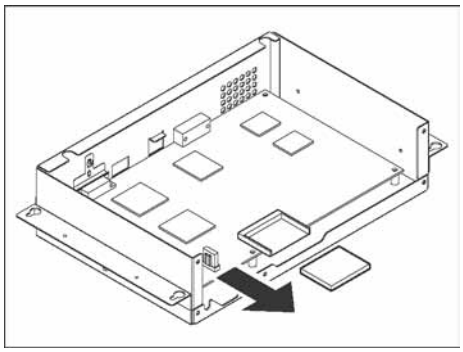
- Four screws (M3×6)

Loosen the screws and remove the control unit by sliding it slightly.



7 Remove the lid from the control box.

- Nine screws (M3×6)



8 Remove the compact flash.

9 Install a new compact flash.

10 Install the lid removed in step 7 on the control box.

• Nine screws (M3×6)

11 Install the control box assembly removed in step 6.

• Four screws (M3×6)

12 Install the control board duct unit assembly removed in step 5.

• Three screws (M3×6)

13 Connect the connector (JP24) removed in step 4.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

14 Connect the connectors removed in step 3 to MEC IF (CCN5), exposure IF (CCN6), and power supply (JP52).

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

15 Install the connector cover removed in step 2.

16 Install the LAN cover and film ejection tray with reference to "■ Installation Procedure (Page 3-11)" in "3.3.2 Removing/Installing Film Ejection Tray".

This is the end of the process of replacing the compact flash.

11.5 Replacing MEC Board

Replace the MEC board that controls a motor and sensor.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

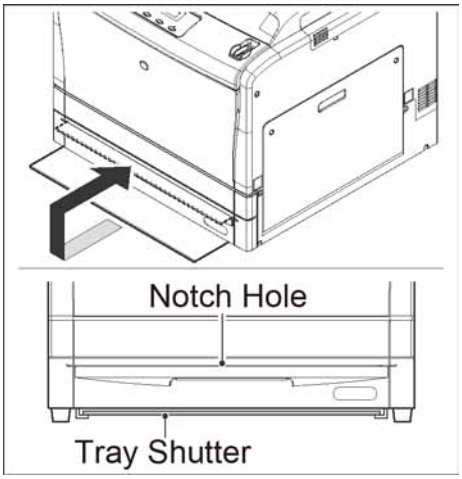
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	MEC board (for replacement)	4	Grounding strap



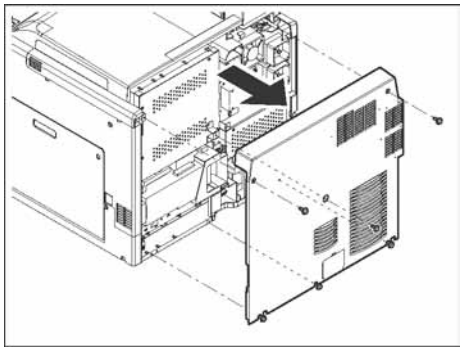
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

Caution

- When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
- Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
- If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

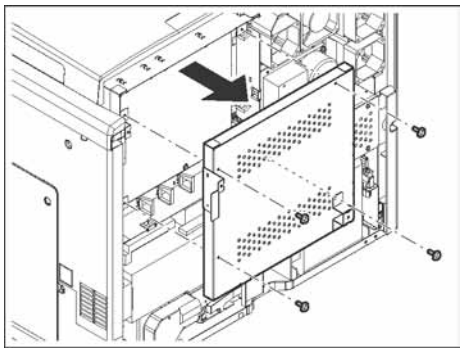


3 Remove the rear cover.

• Six screws (M4×8)

Note

Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.

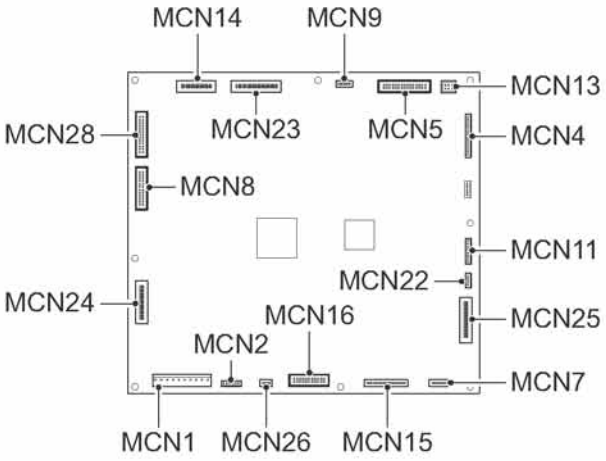


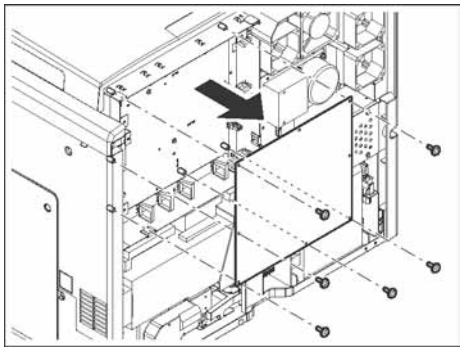
4 Remove the MEC (mechanical control) box cover.

• Four screws (M3×6)

5 Remove the connectors (MCN1, MCN2, MCN4, MCN5, MCN7, MCN8, MCN9, MCN11, MCN13, MCN14, MCN15, MCN16, MCN22, MCN23, MCN24, MCN25, MCN26, and MCN28) from the MEC board.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers. Pulling by the wires too tightly can cause a break.





6 Remove the MEC board.

• Six screws (M4×8)

Remove the screws and the board supports in two positions to remove the board.

7 Install a new MEC board.

• Six screws (M4×8)

8 Connect the connectors (MCN1, MCN2, MCN4, MCN5, MCN7, MCN8, MCN9, MCN11, MCN13, MCN14, MCN15, MCN16, MCN22, MCN23, MCN24, MCN25, MCN26, and MCN28) removed in step 5.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

9 Install the MEC box cover removed in step 4.

• Four screws (M3×6)

10 Install the rear cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

11 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the MEC board.

11.6 Replacing Multiple Power Supply

Replace the multiple power supply unit that supplies DC voltage.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

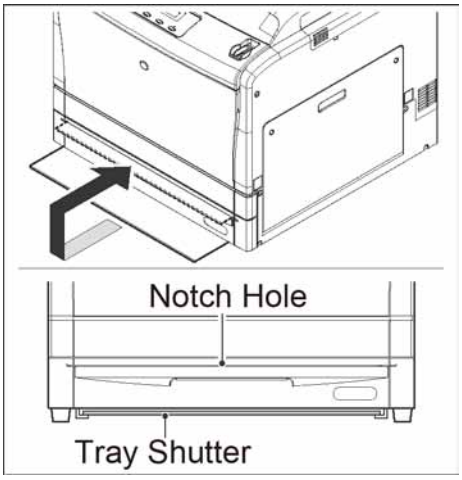
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Multiple power supply (for replacement)	4	Grounding strap

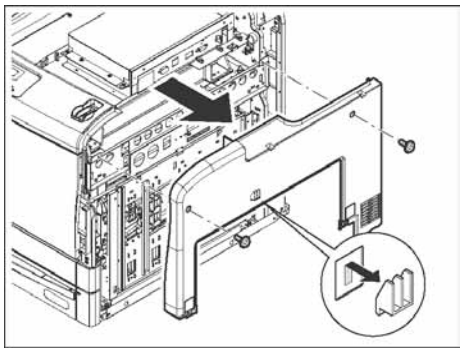


1 Pull the tray shutter out of the lower part of the supply tray.

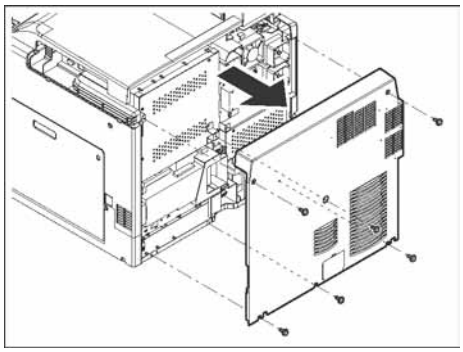
2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



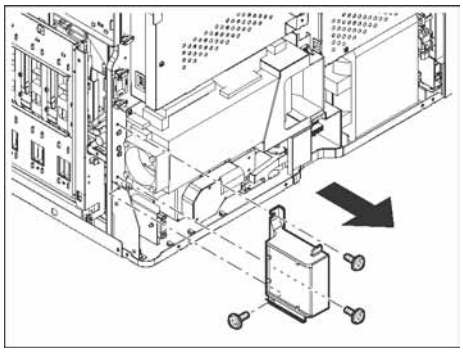
3 Remove the right cover, lower right cover, LAN cover, film ejection tray, connector cover, and the upper right cover with reference to "■ Removal Procedure (Page 3-12)" in "3.3.3 Removing/ Installing Upper Right Cover".



4 Remove the rear cover.

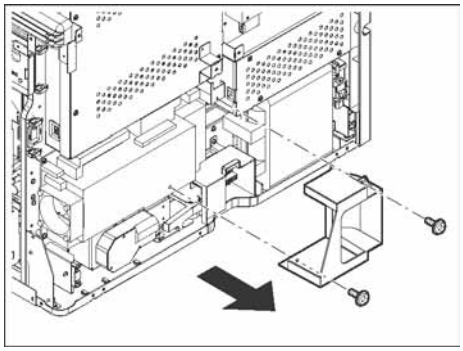
• Six screws (M4×8)

> **Note** Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.



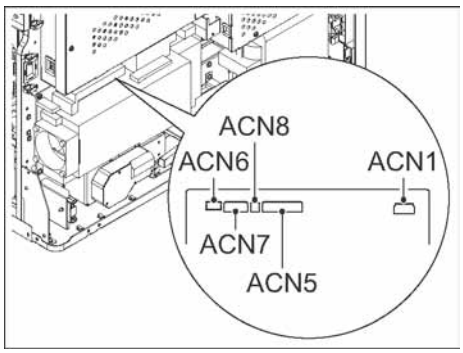
5 Remove the duct.

• Three screws (M3×6)



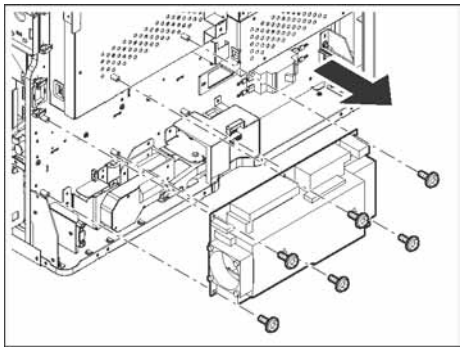
6 Remove the duct.

• Two screws (M3×6)



7 Disconnect the connector (ACN1, ACN5, ACN6, ACN7, and ACN8) from the multiple power supply.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



8 Remove the multiple power supply.

• Six screws (M4×8)

Remove the screws and the board support in one position to remove the multiple power supply.

9 Install a new multiple power supply.

• Six screws (M4×8)

10 Connect the connectors (ACN1, ACN5, ACN6, ACN7, and ACN8) removed in step 7.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

11 Install the duct removed in step 6.

- Two screws (M3×6)

12 Install the duct removed in step 5.

- Three screws (M3×6)

13 Install the rear cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

14 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to "■ Installation Procedure (Page 3-15)" in "3.3.3 Removing/Installing Upper Right Cover".

15 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the multiple power supply.

11.7 Replacing H-DRV Board

Replace the H-DRV board that controls the heater in the heat process unit.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- The heat process unit and the area around it are hot immediately after turning off DRYPRO 832.
  The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.
- To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

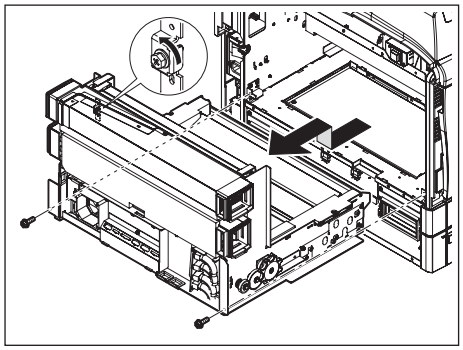
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	15 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

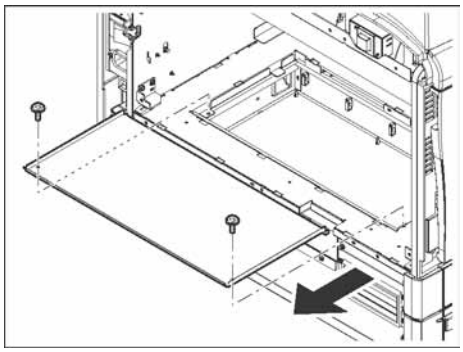
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	H-DRV board (for replacement)	4	Grounding strap
5	Cotton work gloves		



1 Remove the left cover and heat process unit with reference to "■ Removal Procedure (Page 9-3)" in "9.1.1 Removing/Installing Heat Process Unit".

Caution

- When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
- The heat process unit weighs approximately 15kg.
  Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.
- Be very careful, the top of the rack is hot.

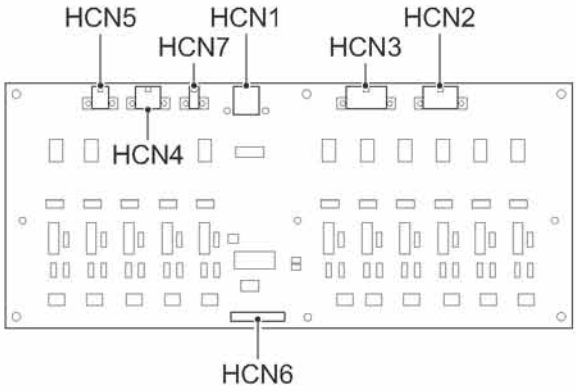


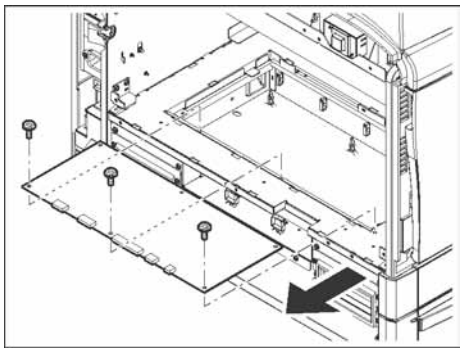
2 Remove the lid from the box where the H-DRV board is housed.

• Two screws (M3×6)

3 Disconnect the connectors (HCN1, HCN2, HCN3, HCN4, HCN5, HCN6, and HCN7) from the H-DRV board.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers. Pulling by the wires too tightly can cause a break.





4 Remove the H-DRV board.

- Three screws (M4×8)

Remove the screws and the board supports in three positions to remove the board.

5 Install a new H-DRV board.

- Three screws (M4×8)

6 Connect the connectors (HCN1, HCN2, HCN3, HCN4, HCN5, HCN6, and HCN7) removed in step 3.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

7 Install the lid removed in step 2 on the box where the H-DRV board is housed.

- Two screws (M3×6)

8 Install the heat process unit and the left cover with reference to "■ Installation Procedure (Page 9-5)" in "9.1.1 Removing/Installing Heat Process Unit".

9 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the H-DRV board.

11.8 Replacing Noise Filter

Replace the noise filter that removes AC voltage noise.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

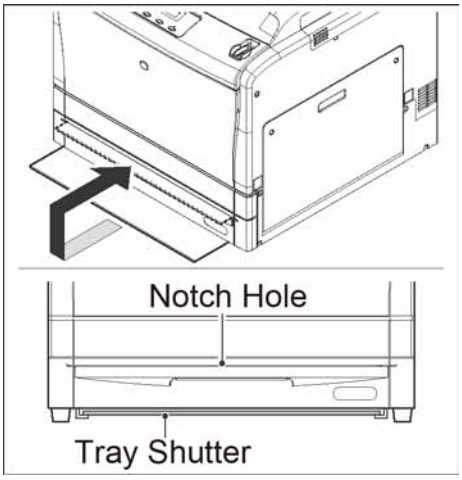
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Noise filter (for replacement)	4	Grounding strap



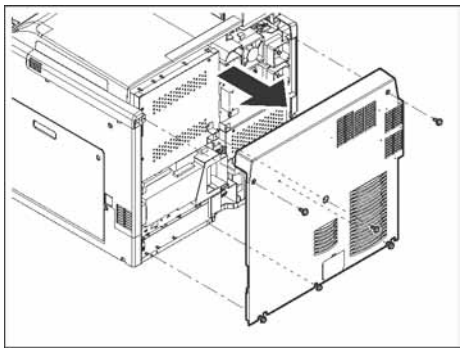
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

Caution

- When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
- Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
- If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.

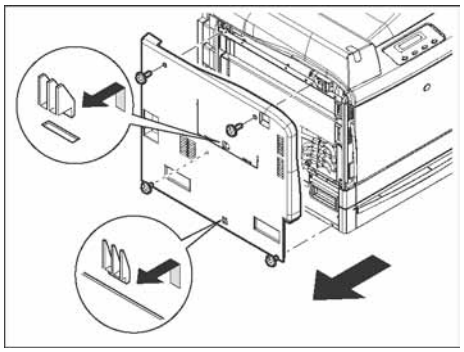


3 Remove the rear cover.

• Six screws (M4×8)

Note

Remove the upper two screws and the one screw in the center from the rear cover and loosen the bottom three screws.

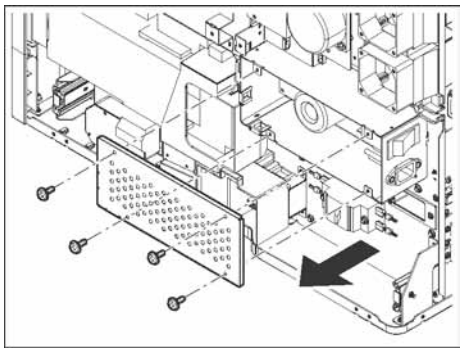


4 Remove the left cover.

• Four screws (M4×8)

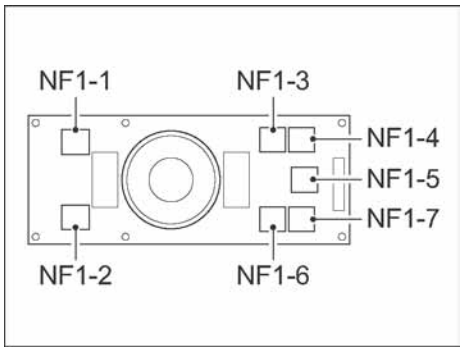
Slide the left cover upward so that the tabs (two locations) on the inside of the left cover detach from the main unit, and remove the cover.

> **Note** Remove two screws on the upper part of the left cover and loosen two screws on the lower part.



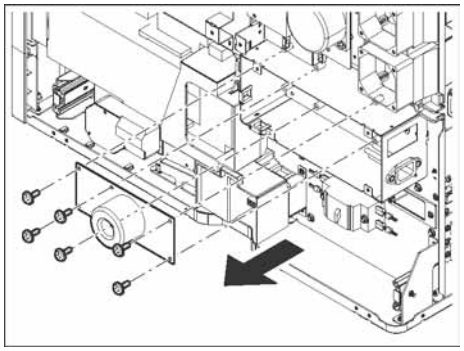
5 Remove the lid from the noise filter.

• Four screws (M3×6)



6 Remove Faston terminals (NF1-1, NF1-2, NF1-3, NF1-4, NF1-5, NF1-6, and NF1-7).

- The NF1-1 (black) and NF1-2 (white) are connected to the to main power supply.
- The NF1-3 (black) and NF1-6 (white) are connected to the ground-fault circuit interrupter.
- The NF1-4 (black) and NF1-7 (white) are connected to the multiple power supply.
- The NF1-5 (green) is connected to FG.



7 Remove the noise filter.

• Six screws (M4×8)

8 Install a new noise filter.

• Six screws (M4×8)

9 Connect Faston terminals (NF1-1, NF1-2, NF1-3, NF1-4, NF1-5, NF1-6, and NF1-7) removed in step 6.

10 Install the lid removed in step 5 on the noise filter.

• Four screws (M3×6)

11 Install the left cover with reference to "■ Installation Procedure (Page 3-23)" in "3.3.6 Removing/Installing Left Cover".

12 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the noise filter.

11.9 Replacing Control Cooling Fan

Replace the fan unit that cools the control unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

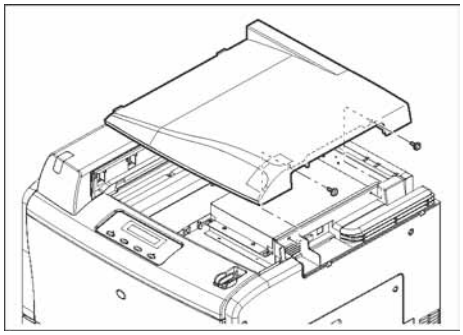
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

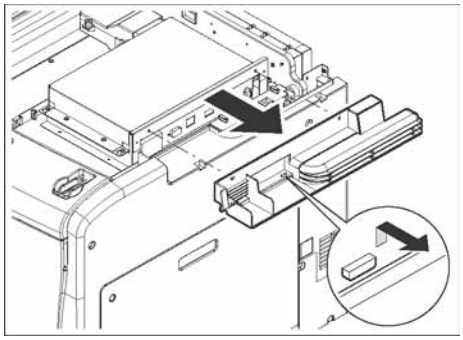
Requirements

The procedure for replacing loading parts requires the following tools

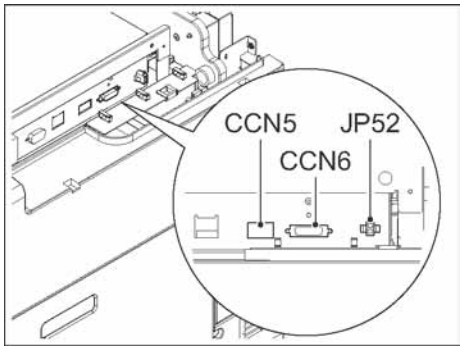
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Fan unit (for replacement)		



1 Remove the LAN cover and film ejection tray with reference to "■ Removal Procedure (Page 3-10)" in "3.3.2 Removing/Installing Film Ejection Tray".

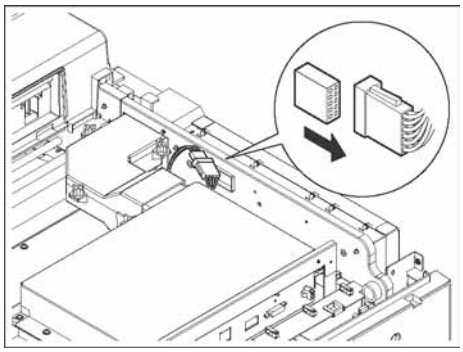


2 Remove the connector cover.



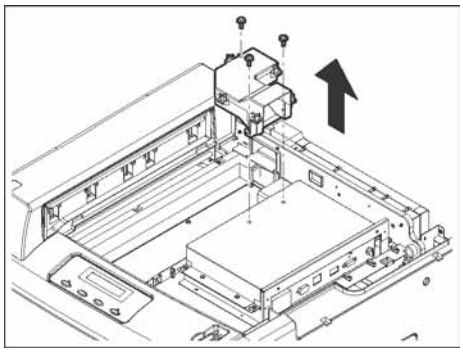
3 Remove connectors from MEC IF (CCN5), exposure IF (CCN6), and power supply (JP52).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



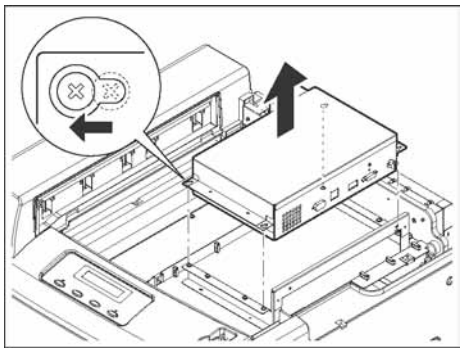
4 Remove the connector (JP24) from the control box DC fan.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.



5 Remove the control board duct unit assembly.

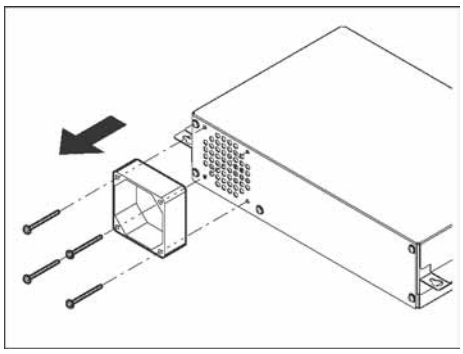
- Three screws (M3×6)



6 Remove the control box assembly.

- Four screws (M3×6)

Loosen the screws and remove the control unit by sliding it slightly.



7 Remove the control cooling fan.

- Four screws (M3×35)

8 Install a new control cooling fan.

- Four screws (M3×35)

9 Install the control box assembly removed in step 6.

- Four screws (M3×6)

10 Install the control board duct unit assembly removed in step 5.

- Three screws (M3×6)

11 Connect the connector (JP24) removed in step 4.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

12 Connect the connectors removed in step 3 to MEC IF (CCN5), exposure IF (CCN6), and power supply (JP52).

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

13 Install the rear cover with reference to "■ Installation Procedure (Page 3-19)" in "3.3.4 Removing/Installing Rear Cover".

14 Install the connector cover removed in step 2.

15 Install the LAN cover and film ejection tray with reference to "■ Installation Procedure (Page 3-11)" in "3.3.2 Removing/Installing Film Ejection Tray".

This is the end of the process of replacing the control cooling fan.

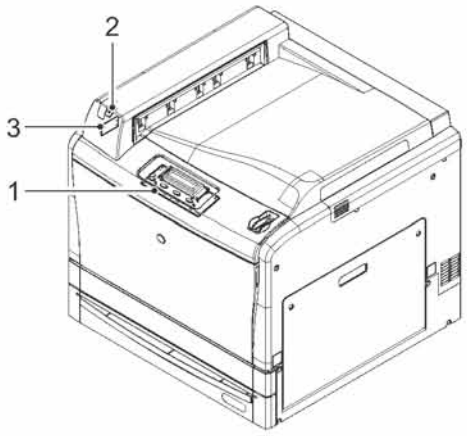
Chapter 12 Replacing Loading Parts in the Exterior of Main Unit

This chapter describes how to replace loading parts in the exterior of the main unit when they fail and how to adjust after replacing the loading parts.

12.1 Placing Loading Parts 12-2
12.2 Removing/Installing Exterior of Operation Panel 12-3
12.3 Replacing LCD Board 12-6
12.4 Replacing Status Lamp 12-8
12.5 Replacing Operation Switch Board 12-11

12.1 Placing Loading Parts

The exterior of the main unit includes the following loading parts.



No.	Name	Functions and Reference Sections
1	LCD board	This is a message display LCD board on the operation panel. For more information, see "12.3 Replacing LCD Board (Page 12-6)".
2	Status lamp	This status lamp indicates the operating status of DRYPRO 832. For more information, see "12.4 Replacing Status Lamp (Page 12-8)".
3	Operation switch board	This is an operation switch board. For more information, see "12.5 Replacing Operation Switch Board (Page 12-11)".

12.2 Removing/Installing Exterior of Operation Panel

This section describes the procedure for removing or installing the operation panel when replacing loading parts in the exterior of the main unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

The number of personnel and the estimated work hours required to replace loading parts is as follows:

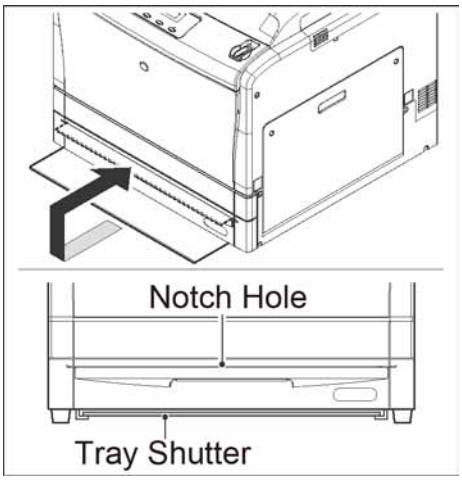
Number of Personnel	Work Hours
1	5 minutes each

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)

■ Removal Procedure

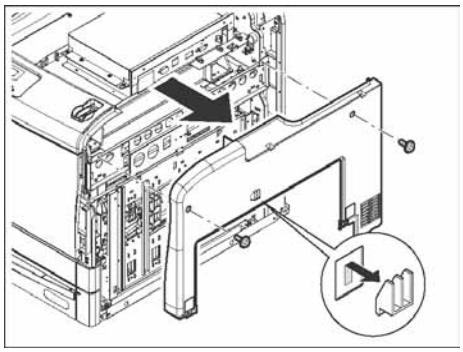


1 Pull the tray shutter out of the lower part of the supply tray.

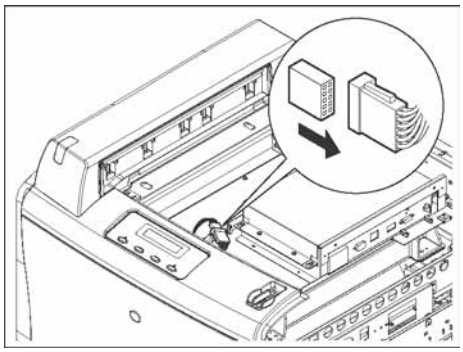
2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
> - If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



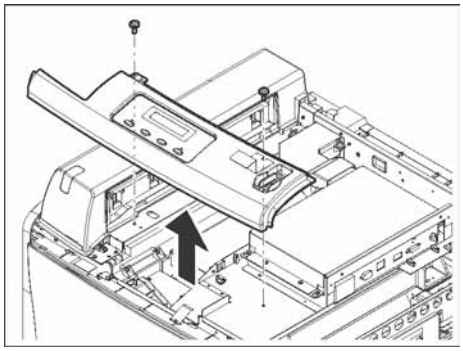
3 Remove the right cover, lower right cover, LAN cover, film ejection tray, connector cover, and the upper right cover with reference to "■ Removal Procedure (Page 3-12)" in "3.3.3 Removing/Installing Upper Right Cover".



4 Disconnect the connector (OCN1) connected to the operation panel.

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

> **Note** To make it easy to disconnect the connector, remove wire from the clamps and wire saddle.



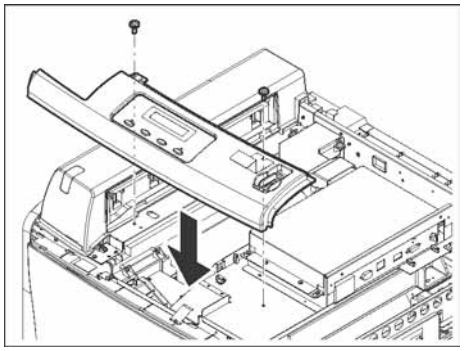
5 Remove the exterior of the operation panel.

• Two screws (M4×8)

This is the end of the process of removing the exterior of the operation panel.

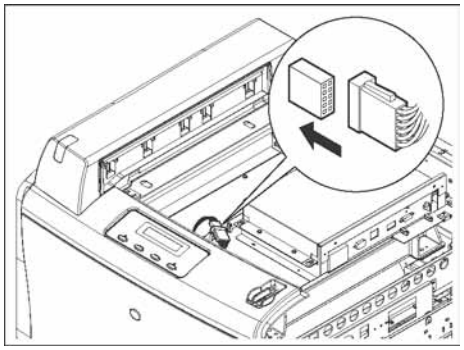
- When replacing the LCD board, go to "12.3 Replacing LCD Board (Page 12-6)".
- When replacing the status lamp, go to "12.4 Replacing Status Lamp (Page 12-8)".
- When replacing the operation switch board, go to "12.5 Replacing Operation Switch Board (Page 12-11)".

■ Installation Procedure



1 Install the exterior of the operation panel.

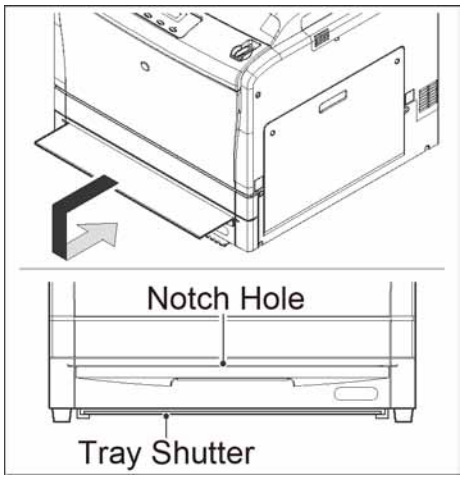
• Two screws (M4×8)



2 Connect the connector (OCN1).

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

3 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to "■ Installation Procedure (Page 3-15)" in "3.3.3 Removing/ Installing Upper Right Cover".



4 Put the supply tray back into the main unit.

5 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of installing the exterior of the operation panel.

12.3 Replacing LCD Board

Replace the message display LCD board on the operation panel.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

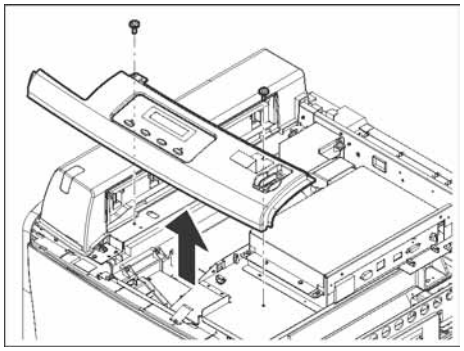
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

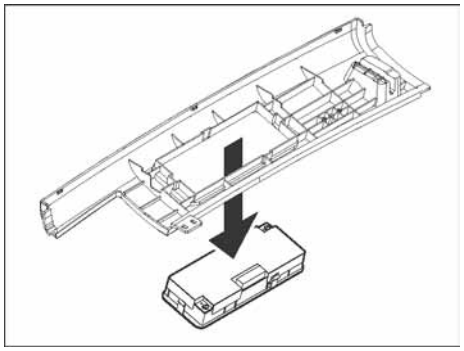
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	LCD board (for replacement)	4	Grounding strap



1 Remove the exterior of the operation panel with reference to "■ Removal Procedure (Page 12-3)" in "12.2 Removing/Installing Exterior of Operation Panel".

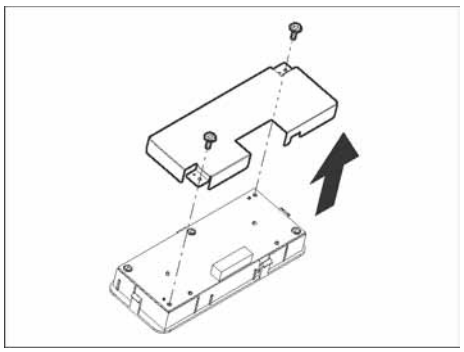
Caution

When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.



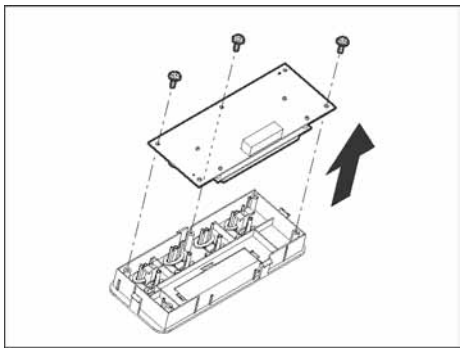
2 Remove the operation panel.

Push out the operation panel by pressing down the tab on the operation panel.



3 Remove the cover.

• Two screws (M3×6)



4 Remove the LCD board.
- Three screws (M3×6)

5 Install a new LCD board.
- Three screws (M3×6)

6 Confirm that the LCD board is properly installed by pressing each button on the operation panel.

7 Install the cover removed in step 3.
- Two screws (M3×6)

8 Install the operation panel removed in step 2.

9 Install the exterior of the operation panel with reference to "■ Installation Procedure (Page 12-5)" in "12.2 Removing/Installing Exterior of Operation Panel".

10 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the LCD board.

12.4 Replacing Status Lamp

Replace the status lamp that indicates the operating status of DRYPRO 832.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

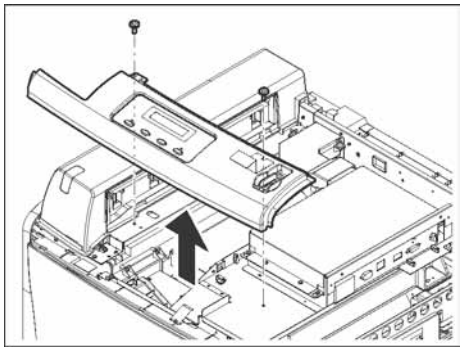
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

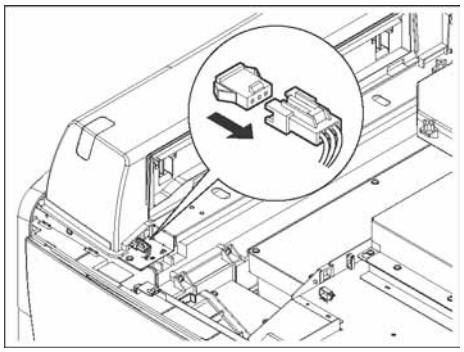
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Status lamp (for replacement)	4	Grounding strap



1 Remove the exterior of the operation panel with reference to "■ Removal Procedure (Page 12-3)" in "12.2 Removing/Installing Exterior of Operation Panel".

Caution

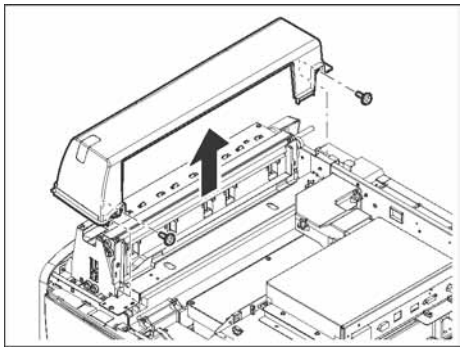
When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.



2 Remove the status lamp relay connector (JJ27).

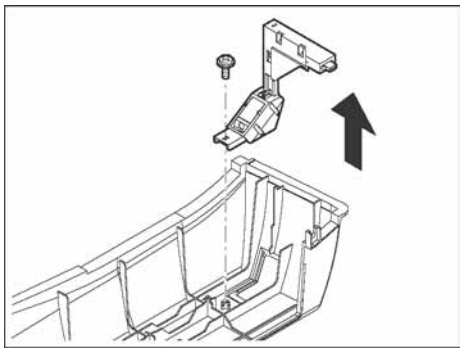
Caution

When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
Pulling by the wires too tightly can cause a break.



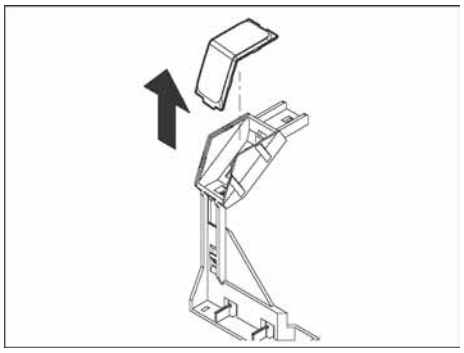
3 Remove the ejection unit cover.

- Two screws (M4×8)

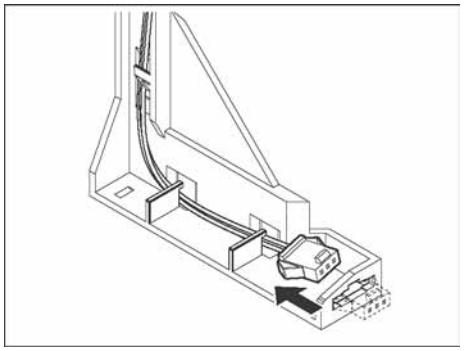


4 Remove the status lamp cover.

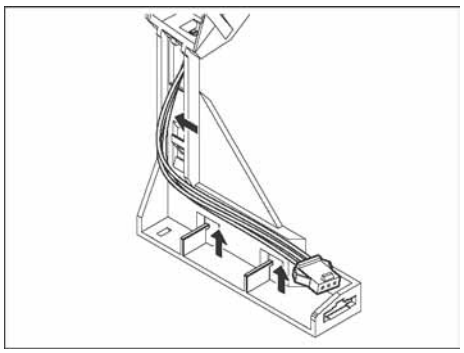
• One screw (M3×6)



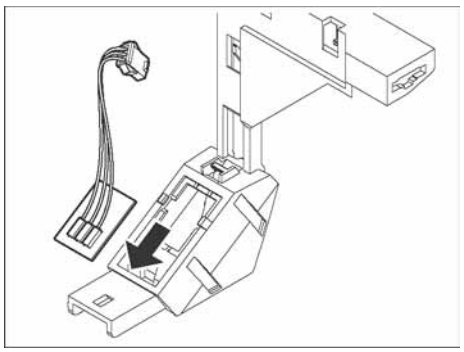
5 Remove the lamp cover.



6 Remove the connector (JP27) from the status lamp cover.



7 Disconnect the fixed status lamp wire from the status lamp cover.



8 Slide the status lamp board to remove the status lamp from the status lamp cover.

9 Install a new status lamp board.

10 Fix the status lamp wire removed in step 6 to the status lamp cover.

11 Install the connector (JP27) removed in step 7 on the status lamp cover.

12 Install the lamp cover removed in step 5.

13 Remove the status lamp cover removed in step 4.

14 Remove the ejection unit cover removed in step 3.

- Two screws (M4×8)

15 Connect the relay connector (JJ27) removed in step 2.

> **Caution**
> Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

16 Install the exterior of the operation panel with reference to "■ Installation Procedure (Page 12-5)" in "12.2 Removing/Installing Exterior of Operation Panel".

17 Return the supply tray and tray shutter to their original positions.

> **Caution**
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the status lamp.

12.5 Replacing Operation Switch Board

Replace the operation switch board.

> **Caution**
> - Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
> - To avoid damage to the board caused by electrostatic discharge, wear a wrist grounding strap with reference to "3.4 Installing a Grounding Strap (Page 3-24)" when accessing the board for work.

Work outline

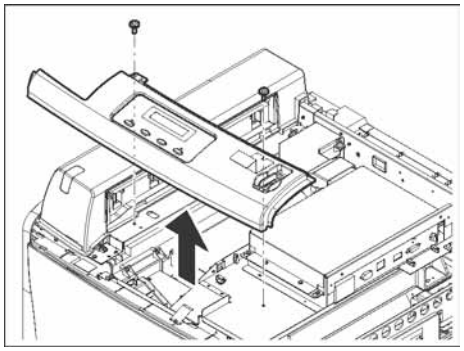
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

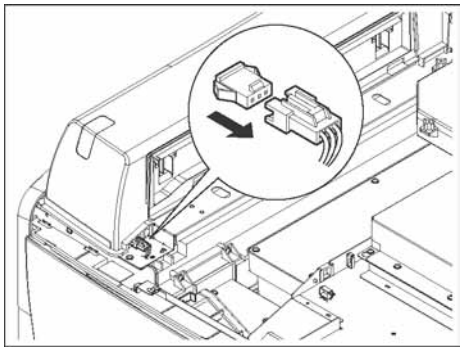
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Operation switch board (for replacement)	4	Grounding strap



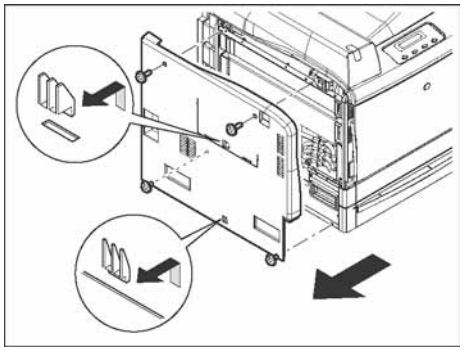
1 Remove the exterior of the operation panel with reference to "■ Removal Procedure (Page 12-3)" in "12.2 Removing/Installing Exterior of Operation Panel".

> **Caution**
> When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.



2 Remove the relay connector (JJ27).

> **Caution**
> When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause a break.

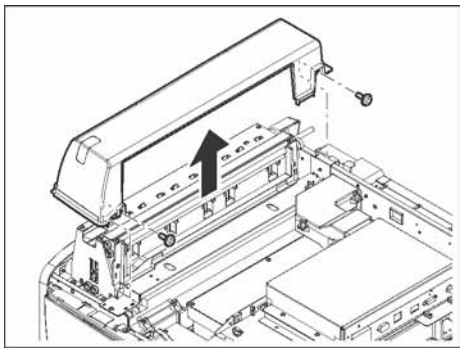


3 Remove the left cover.

• Four screws (M4×8)

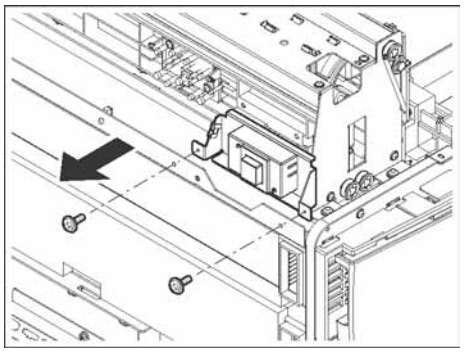
Slide the left cover upward so that the tabs (two locations) on the inside of the left cover detach from the main unit, and remove the cover.

> **Note**
> Remove two screws on the upper part of the left cover and loosen two screws on the lower part.



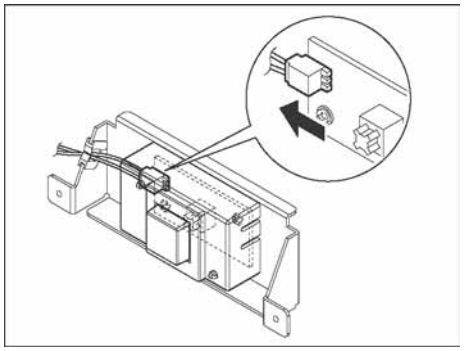
4 Remove the ejection unit cover.

- Two screws (M4×8)



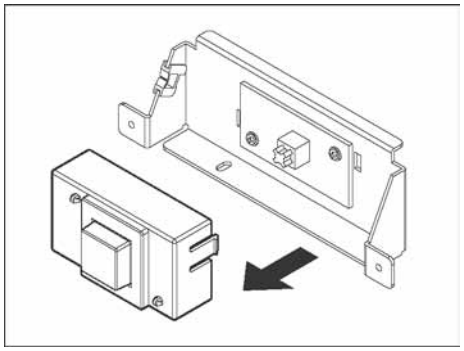
5 Remove the switch mounting plate.

- Two screws (M3×6)



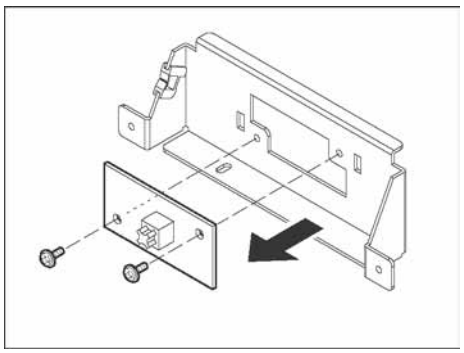
6 Remove the connector (PSCN1).

> **Caution** When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
> Pulling by the wires too tightly can cause it to break.



7 Remove the switch cover.

Remove it by pressing down the tab on the cover.



8 Remove the operation switch board.

- Two screws (M3×6)

9 Install a new operation switch board.

- Two screws (M3×6)

10 Install the switch cover removed in step 7.

11 Connect the connector (PSCN1) removed in step 6.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

12 Install the switch mounting plate removed in step 6.

- Two screws (M3×6)

13 Install the left cover with reference to "■ Installation Procedure (Page 3-23)" in "3.3.6 Removing/Installing Left Cover".

14 Install the ejection unit cover removed in step 4.

- Two screws (M4×8)

15 Connect the relay connector (JJ27) removed in step 2.

> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

16 Install the exterior of the operation panel with reference to "■ Installation Procedure (Page 12-5)" in "12.2 Removing/Installing Exterior of Operation Panel".

17 Return the supply tray and tray shutter to their original positions.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the operation switch board.

Chapter 13 Replacing and Cleaning Loading Parts on a Regular Basis

This chapter describes the procedures for replacing and cleaning loading parts on a regular basis.

13.1 Periodic Maintenance Tasks 13-2
13.2 Replacing Pickup Roller.....13-3
13.3 Replacing Opposed Roller.....13-7
13.4 Cleaning Guide 13-11
13.5 Cleaning Control Box Intake Air Filter.....13-13
13.6 Power Supply Unit Intake Air Filter Cleaning 13-14

13.1 Periodic Maintenance Tasks

Maintenance tasks to be performed on DRYPRO 832 on a regular basis and maintenance interval schedule are as follows:

No.	Maintenance Tasks	Maintenance Interval Schedule
1	Replacement of a pickup roller	Every 50,000 sheets
2	Replacement of opposed roller	Every 50,000 sheets
3	Guide cleaning	Every 50,000 sheets
4	Control box intake air filter cleaning	Semi-annually
5	Power supply unit intake air filter cleaning	Semi-annually

13.2 Replacing Pickup Roller

Replace the pickup roller that transports film from the supply tray to the justification unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

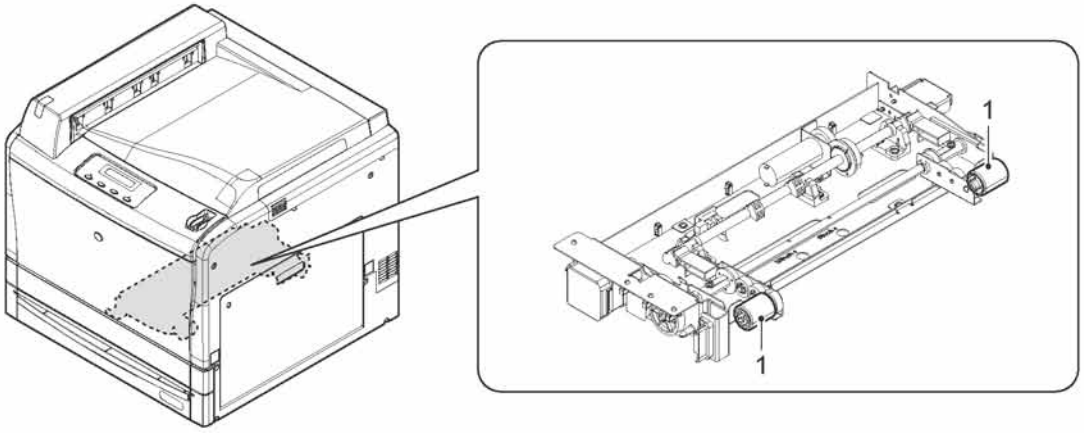
Requirements

The procedure for replacing loading parts requires the following tools:

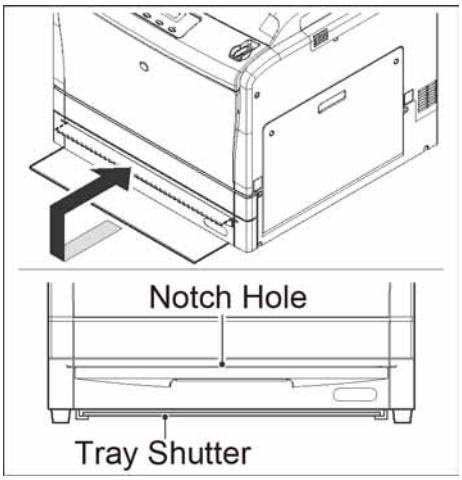
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Pickup rollers (for replacement)		

■ Placing Loading Parts

> **Note** The supply unit of Lispl-832 also includes the same loading parts.



No.	Name	Functions and Reference Sections
1	Pickup rollers	This pickup rollers transport film from the supply tray to the justification unit.



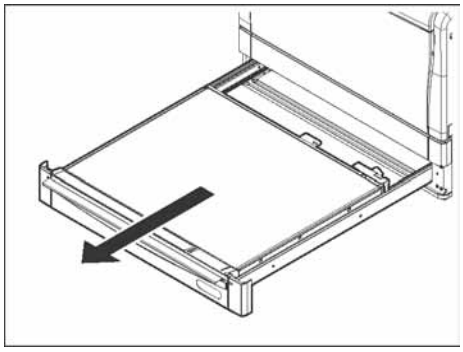
1 Pull the tray shutter out of the lower part of the supply tray.

2 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

Inserting the tray shutter as far as it will go unlocks and causes it to pop out several centimeters.

Caution

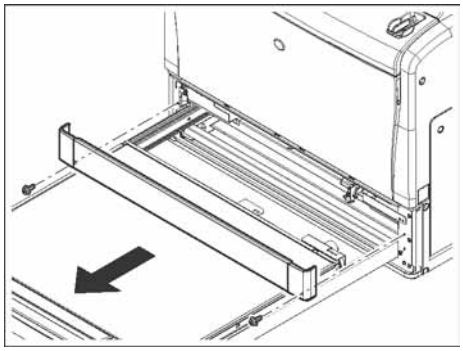
- When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
- Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
- If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



3 Slowly pull out the supply tray fully.

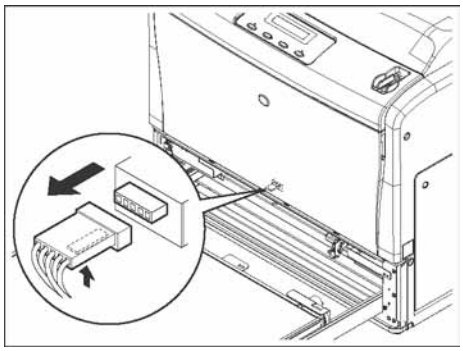
Caution

Do not place objects on, lean on, or apply loads on the pulled out supply tray.



4 Remove the lower front cover.

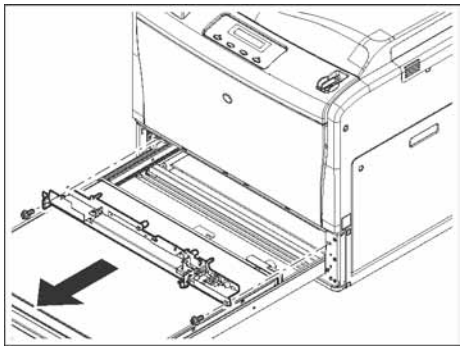
• Two screws (M3×8)



5 Remove the connector (JJ48).

Caution

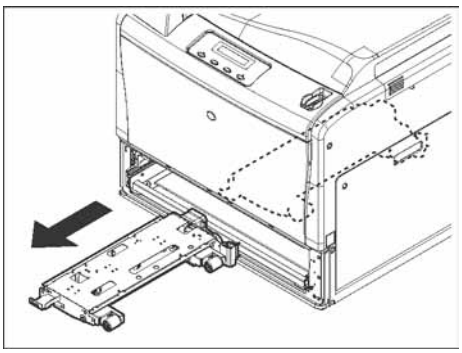
When removing the connector, do not pull by the wires, but hold the tab on the connector with your fingers.
Pulling by the wires too tightly can cause a break.



6 Remove the light shield unit assembly.

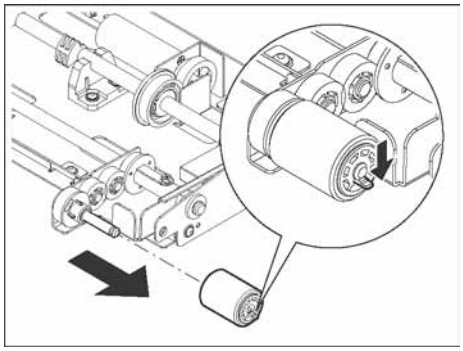
• Two screws (M3×8)

> **Caution** When removing the light shield unit assembly, be careful not to cause the sensor to come into contact with the parts inside the main unit.



7 Remove the pickup unit assembly.

> **Caution** When removing the pickup unit assembly, be careful not to cause the sensor to come into contact with the parts inside the main unit.

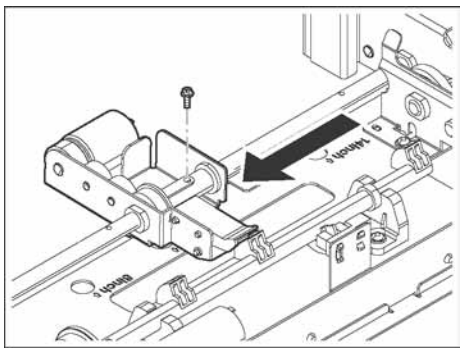


8 Remove the pickup rollers.

• Two pickup rollers

Push the tab on the shaft outward and remove the pickup rollers.

> **Caution** When using 14-inch film, one end of the pickup roller interferes with the bracket and cannot be removed. First remove the pickup unit assembly, and then remove the pickup roller.



9 Install new pickup rollers.

Check the hooks of the pickup rollers for a proper fit in the groove in the shaft.

10 Install the pickup unit assembly removed in step 7.

> **Caution** Insert the pickup unit assembly all the way in along the guides while being careful not to cause any damage by coming into contact with the parts inside the main unit.
> If the pickup unit assembly is not installed properly, it may be impossible to install the light shield unit assembly.

11 Install the light shield unit assembly removed in step 6.

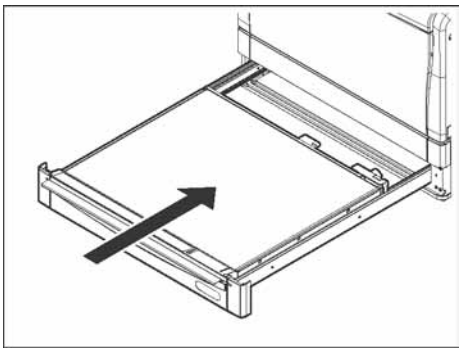
• Two screws (M3×8)

12 Connect the connector (JJ48) removed in step 5.

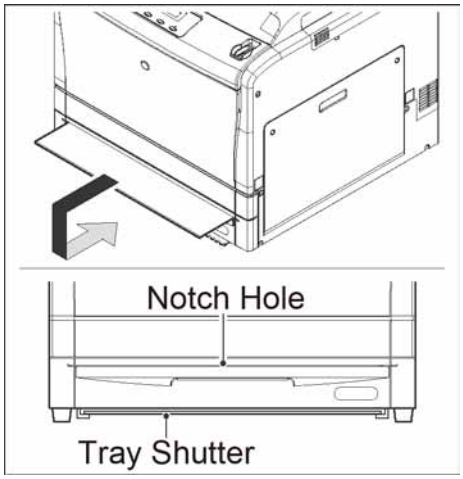
> **Caution** Be sure to push the connector all the way in when connecting it.
> If the connector is not connected properly, an error will occur and, in some cases, smoke and/or an odor may be generated.

13 Install the lower front cover.

• Two screws (M3×8)



14 Put the supply tray back into the main unit.



15 Remove the tray shutter and return it to the previous position.

> **Caution** Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the pickup rollers.

13.3 Replacing Opposed Roller

Replace the roller that transports film for exposure and heat processing and transports film to the cooling unit.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- The heat process unit and the area around it are hot immediately after turning off DRYPRO 832.
  The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.
- The heat process unit includes five racks from V1 to V5. You must remove or install them in a predetermined order.
  Be sure to perform work following the steps. Failure to follow these steps can cause the rack to fall that could result in damage to the surface (through which film passes) of the guide.

Work outline

The number of personnel and the estimated work hours required to replace loading parts is as follows:

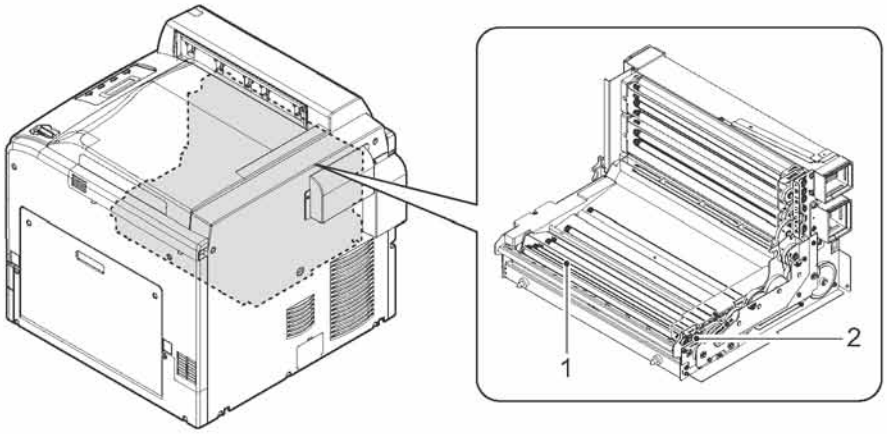
Number of Personnel	Work Hours
1	30 minutes

Requirements

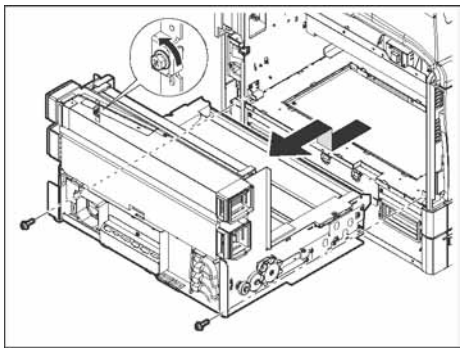
The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Replacement kit (opposed roller and spring)	4	Cotton work gloves

■ Placing Loading Parts

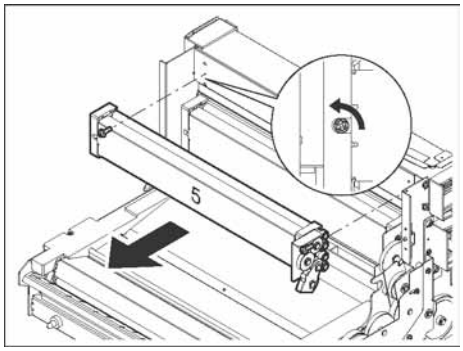


No.	Name	Functions and Reference Sections
1	Opposed roller	This roller transports film for exposure and heat processing and transports film to the cooling unit.
2	Spring	This spring undergoes motion of transport roller.



1 Remove the left cover and the heat process unit with reference to "■ Removal Procedure (Page 9-3)" in "9.1.1 Removing/Installing Heat Process Unit".

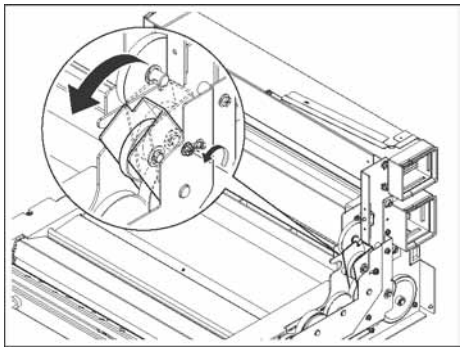
> **Caution**
> - When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
> - The heat process unit weighs approximately 15kg.
> Carefully perform work when unloading the heat process unit from the main unit or transporting it to work site.
> - Be very careful, the top of the rack is hot.



2 Remove the V5 rack.

• Two screws (M3×20)

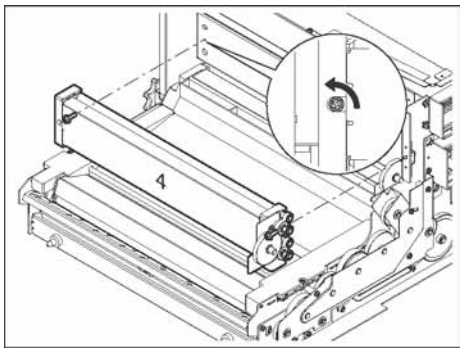
You cannot remove the screws completely.



3 Loosen the screw on the right side of frame on V4 rack.

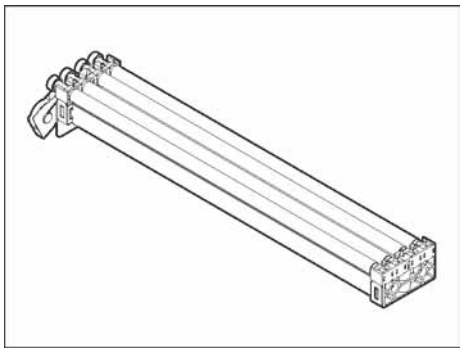
• One screw

4 Turn the gear forward as shown in the diagram at the left.

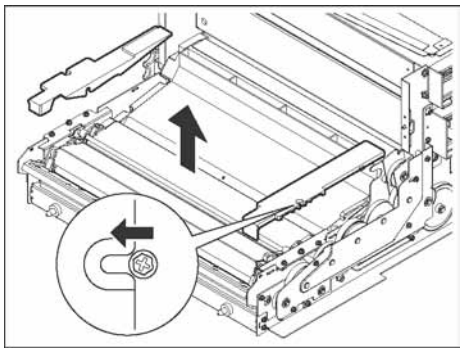


5 Remove the V4 rack.

• Two screws (M3×20)



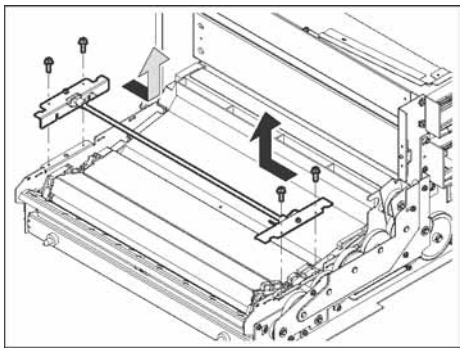
> **Caution** Place the removed rack with the roller side up at work site. If you place the rack with the roller side down, the roller and printed film could get scratched.



6 Remove the cover.

• One screw (M3×6) ×2 positions

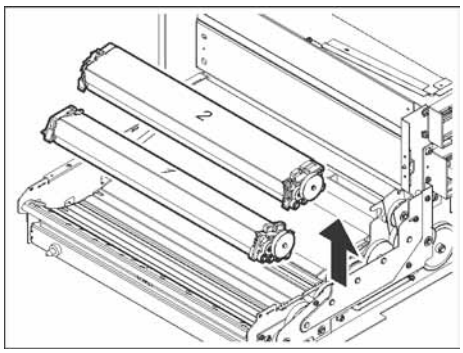
You can remove the cover by only loosening the screw.



7 Remove the rack retainer plate.

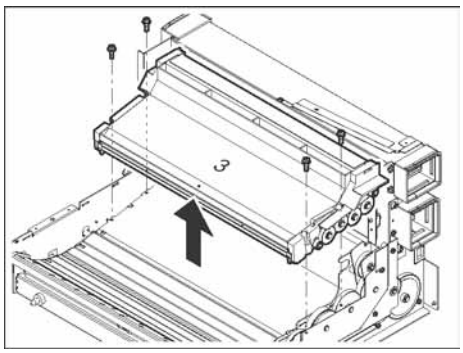
• Two screws (M3×6) ×2 positions

Slightly push in the rack retainer plate inward to make it easy to remove.



8 Remove V1 rack.

9 Remove V2 rack.



10 Remove V3 rack.

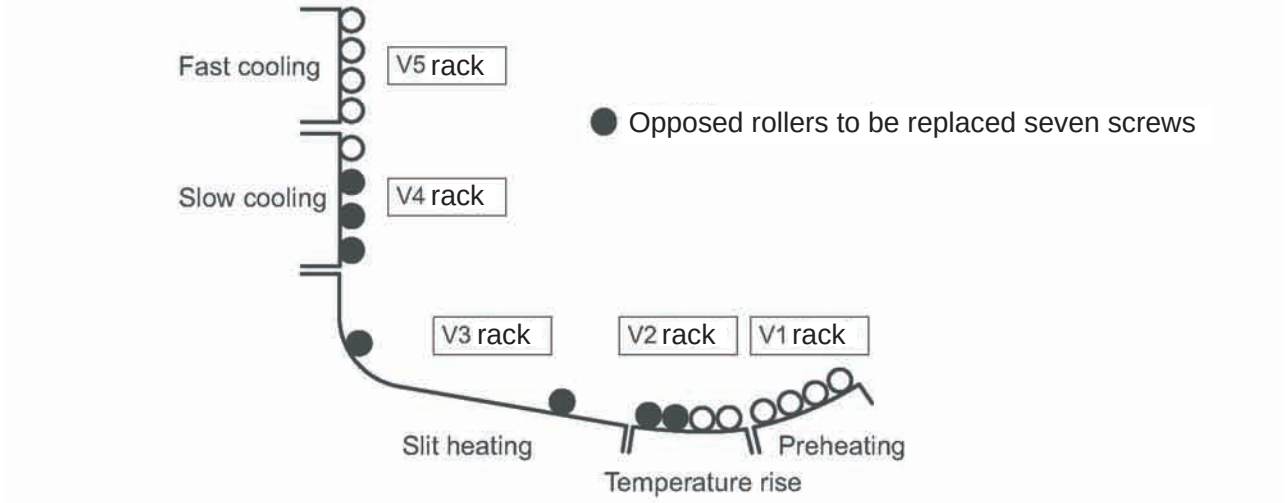
• Four screws (M3×6)

You can remove these screws.

11 Replace the opposed rollers and springs according to the instructions included in the replacement kit.

> **Caution**
> - Push the bearing part to install an opposed roller.
> If excess pressure is applied around the center of the opposed roller to install, the opposed roller might be deformed which causes a 38mm pitch unevenness.
> - After replacing opposed rollers, scratches may occur on the film BC surface due to the surrounding dust. Let the films flow until the scratches disappear.
> Usually the scratches will stop occurring after five to six films.

Opposed rollers and springs to be replaced are as follows:



Rack	Opposed Roller		Spring	Replacement
	Name	Type		
V1	V1-1	—	—	No
	V1-2	—	—	No
	V1-3	—	—	No
	V1-4	—	—	No
V2	V2-1	—	—	No
	V2-2	—	—	No
	V2-3	Roller 1B	Gold spring	Yes
	V2-4	Roller 1B	Gold spring	Yes
V3	V3-1	Roller 12	Gold spring	Yes
	V3-2	Roller 1B'	Silver spring	Yes
V4	V4-1	Roller 2B	Silver spring	Yes
	V4-2	Roller 2B	Silver spring	Yes
	V4-3	Roller 3B	Silver spring	Yes
	V4-4	—	—	No
V5	V5-1	—	—	No
	V5-2	—	—	No
	V5-3	—	—	No
	V5-4	—	—	No

■ Work after replacing the opposed roller

After replacing the opposed roller, perform the following work.

- "13.4 Cleaning Guide (Page 13-11)"

13.4 Cleaning Guide

Clean the guide in the heat process unit through which film passes.

Caution

- Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.
- The heat process unit and the area around it are hot immediately after turning off DRYPRO 832.
  The upper part of the rack is particularly hot. Touching it with bare hands may cause burns. Therefore, use working gloves, and hold the grips on the side panels.
- When cleaning the guide, first remove the rack and leave the guide to cool down before starting work.
- When the heat process unit is hot, ethanol easily evaporates, which could make it harder to remove contamination. Leave the guide removed for about 10 -15 minutes and check that it cools down sufficiently before starting work.

Work outline

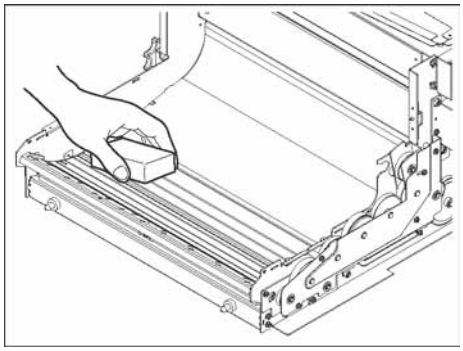
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	10 minutes

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Ethanol	4	Melamine sponge
5	Dust cloth	6	Cotton work gloves



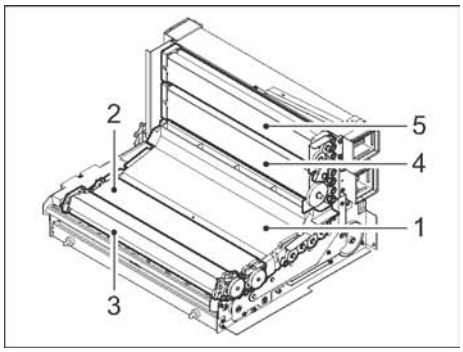
1 Clean the surface of the guide with ethanol.

Cut the melamine sponge to the desired size, soak it in a small amount of ethanol, and wipe the surface of the guide clean.

Caution Do not use anything other than melamine sponge, or the guide could be scratched.

2 Wipe off irregular spots of ethanol with dust cloth.

Wring the water out of the dust cloth and wipe off spots.



Caution You must install the five racks from V1 to V5 in a predetermined order. Be sure to install them, reversing the order of removal.
Failure to follow the order of installation can cause the rack to fall that could result in damage to the surface (through which film passes) of the guide.

3 Install the V3 rack removed in step 10 in “13.3 Replacing Opposed Roller (Page 13-7)”.

• Four screws (M3×6)

4 Install the V2 rack removed in step 9 in "13.3 Replacing Opposed Roller (Page 13-7)".

5 Install the V1 rack removed in step 8 in "13.3 Replacing Opposed Roller (Page 13-7)".

6 Install the rack retainer plate removed in step 7 in "13.3 Replacing Opposed Roller (Page 13-7)".

• Two screws (M3×6) ×2 positions

7 Install the cover removed in step 6 in "13.3 Replacing Opposed Roller (Page 13-7)".

• One screw (M3×6) ×2 positions

8 Install the V4 rack removed in step 5 in "13.3 Replacing Opposed Roller (Page 13-7)".

• Two screws (M3×20)

9 Return the position of the gear back turned forward in step 4 back in"13.3 Replacing Opposed Roller (Page 13-7)" and tighten the screw.

• One screw

10 Install the V5 rack removed in step 2 in "13.3 Replacing Opposed Roller (Page 13-7)".

• Two screws (M3×20)

> Caution
> After the installation of the rack, confirm that the installed gear of the rack to operates properly by moving the gear by hand.

11 Install the heat process unit and the left cover with reference to "■ Installation Procedure (Page 9-5)" in "9.1.1 Removing/Installing Heat Process Unit".

12 Return the supply tray and tray shutter to their original positions.

> Caution
> Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.

This is the end of the process of replacing the opposed roller and cleaning the guide.

13.5 Cleaning Control Box Intake Air Filter

Clean the air intake filter in the control box.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

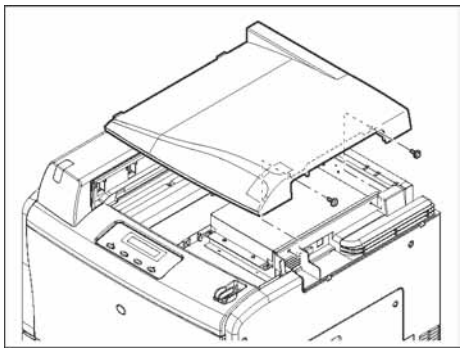
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	1 minute

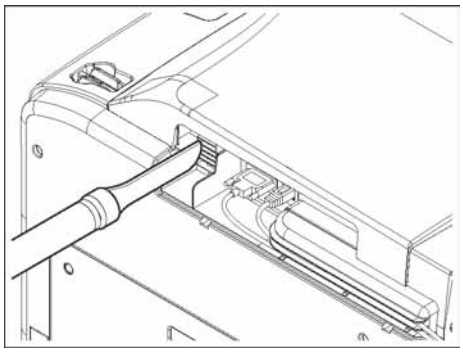
Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Vacuum cleaner



1 Remove the LAN cover with reference to "■ Removal Procedure (Page 3-10)" in "3.3.2 Removing/Installing Film Ejection Tray".



2 Take off the LAN cover and remove dust from the outside of the air intake filter with a vacuum cleaner.

3 Install the LAN cover with reference to "■ Installation Procedure (Page 3-11)" in "3.3.2 Removing/Installing Film Ejection Tray".

This is the end of the process of cleaning the control box air intake filter.

13.6 Power Supply Unit Intake Air Filter Cleaning

Clean the air intake filter in the power supply unit.

> **Caution** Be sure to turn off power and remove the power cable from the electrical outlet before removing or installing the exterior cover or replacing loading parts.

Work outline

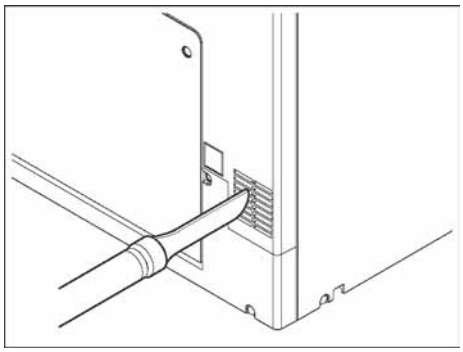
The number of personnel and the estimated work hours required to replace loading parts is as follows:

Number of Personnel	Work Hours
1	1 minute

Requirements

The procedure for replacing loading parts requires the following tools:

No.	Tools	No.	Tools
1	Vacuum cleaner		



1 Remove dust from the outside of the air intake filter with a vacuum cleaner.

This is the end of the process of cleaning the power supply unit air intake filter.

Chapter 14 Setting and Adjustment

This chapter describes various setting and adjustment procedures for DRYPRO 832.

14.1 Image Unevenness Correction 14-2
14.1.1 Density Correction..... 14-3
14.2 Checking and Adjusting Image Data Writing Position 14-13
14.2.1 Checking Image Data Writing Position..... 14-13
14.2.2 Adjusting Main Scan OFFSET (Lateral) Writing Position 14-15
14.2.3 Adjusting Sub Scan OFFSET (Vertical) Writing Position 14-16
14.3 Checking and Fine Tuning the Print Size.....14-17
14.3.1 Checking Print Size..... 14-17
14.3.2 Main Scan OFFSET Adjustment..... 14-19
14.3.3 Sub Scan OFFSET Adjustment 14-20

14.1 Image Unevenness Correction

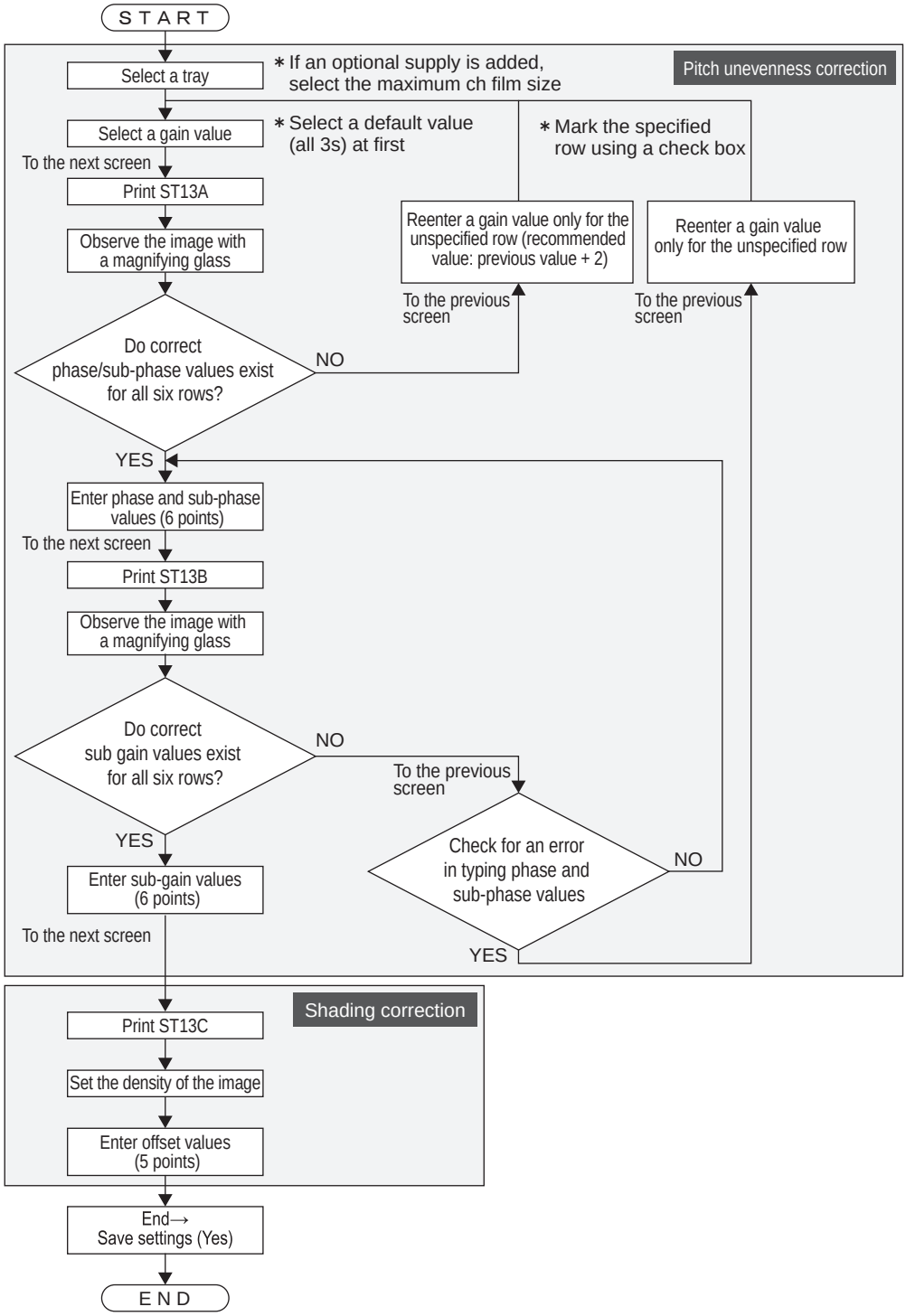
Image unevenness correction is made up of the following items:

Pitch unevenness correction

Density is corrected to minimize unevenness in the direction of pitch of an image (direction of transporting film).

Shading correction

Correction is made to minimize the difference in density of an image in horizontal direction.



14.1.1 Density Correction

By determining ST13A and ST13B correction numbers, make a proper correction to pitch unevenness. By determining ST13C correction number, make a proper correction to shading.

1 Start DRYPRO 832 Utility Tool with reference to the DRYPRO 832 Installation Manual.

The Maintenance Menu window appears.

2 Click the [CORRECTION] button under “SERVICE INFO.”.

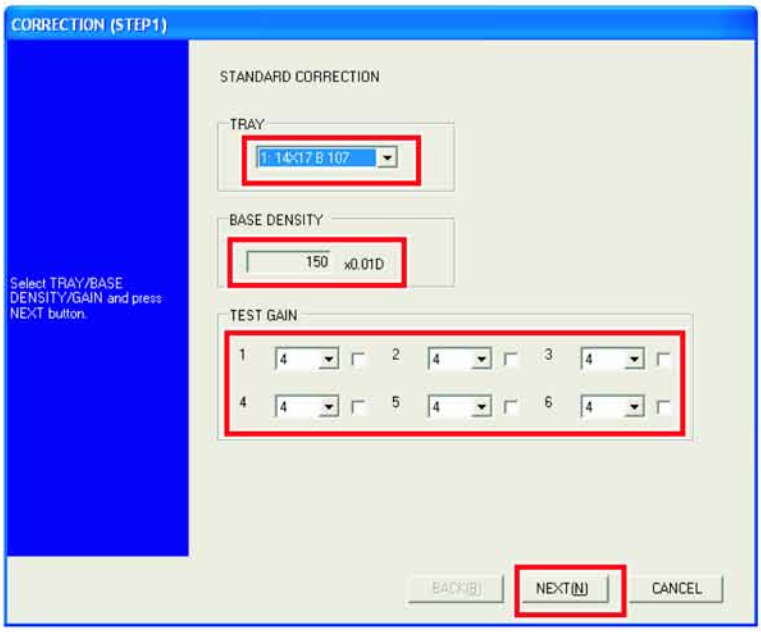
The “CORRECTION (STEP1)” window appears.

3 Select a tray that contains film to which a correction will be made from the “TRAY” pull-down.

> **Note** Select the tray that contains the largest film (recommended width of 14 inches).

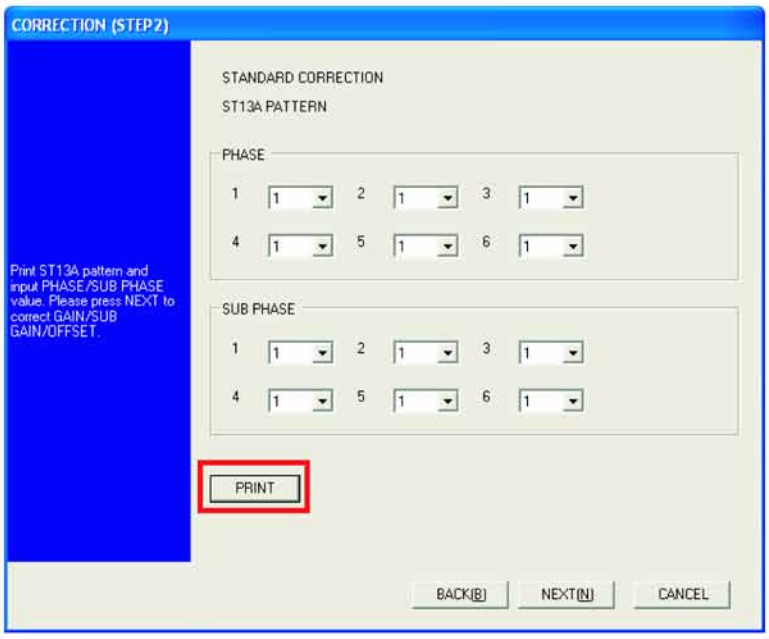
4 Determine an appropriate gain value (6 positions) and enter it in the “TEST GAIN” entry field.

5 Click the [NEXT(N)] button.



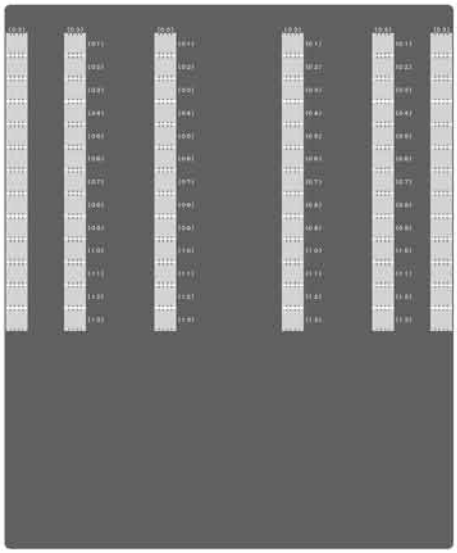
The “CORRECTION (STEP2)” window appears.

6 Click the [PRINT] button.



The ST13A PATTERN is printed.

Example: ST13A PATTERN

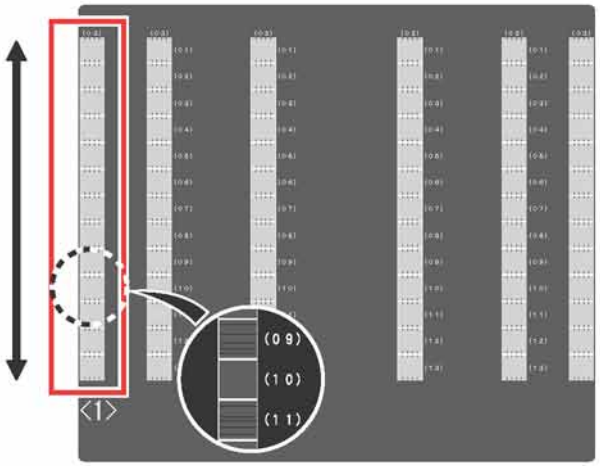


7 Observe the center of each patch in the <1> row of the printed ST13A PATTERN, using a magnifying glass, and determine the number (PHASE) that has the least row-by-row horizontal streak unevenness (0.16 mm pitch) of the patches from (01) to (13).

Write down the number (PHASE) determined on the film.

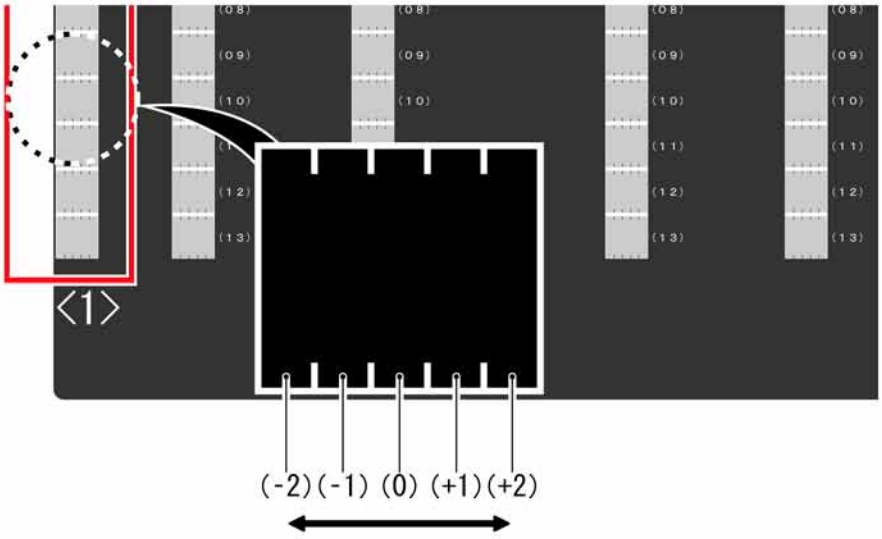
Note

- The number to be determined here is the one that is attached to each density patch in the ST13A test pattern.
- When comparing patches, observe the center of each patch by scanning from the top or bottom with the magnifying glass.



8 Observe the entire area in the patch with the number (PHASE) that has the least streak unevenness determined in step 7 and determine the row-by-row position (SUB PHASE) that has the least horizontal streak unevenness (0.16 mm pitch) of (-2) to (+2).

Write down the number (SUB PHASE) determined on the film.

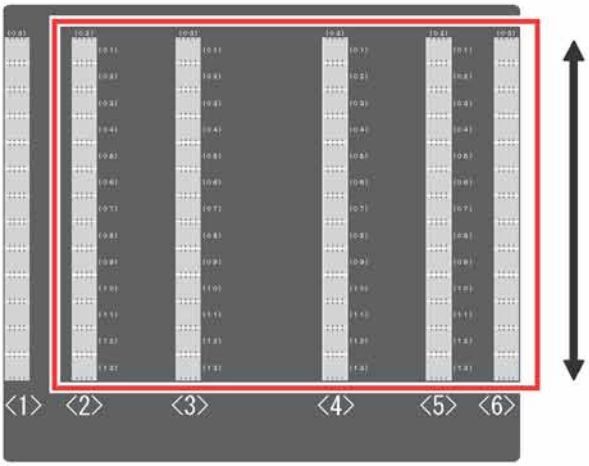


Note

- The number to be determined here is the one that is attached to each density patch in the ST13A test pattern.
- When observing the inside of the patch, observe the center of the patch by scanning from side to side with the magnifying glass.

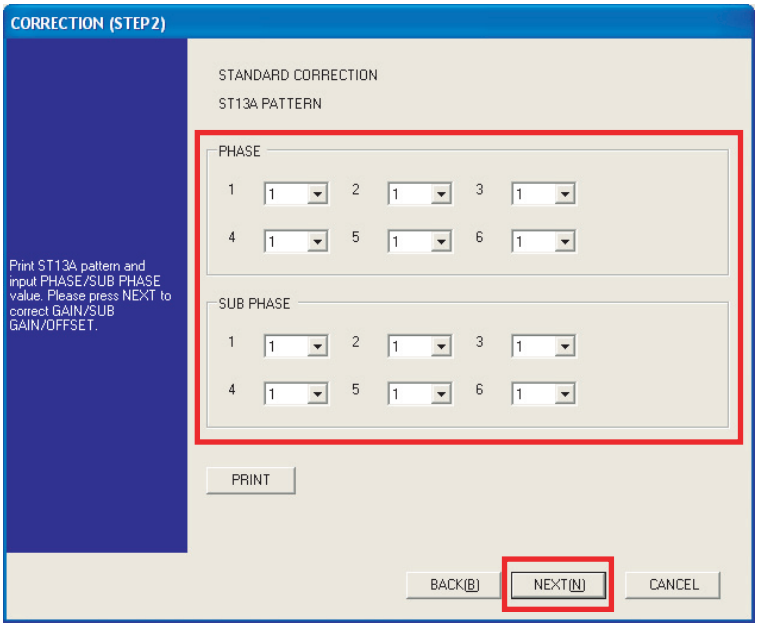
9 Repeat steps from 7 to step 8, and determine the number (PHASE) that has the least horizontal streak unevenness of the <2> to the <6> rows, and the row-by-row position (SUB PHASE) that has the least horizontal streak unevenness.

Write down the numbers (PHASE and SUB PHASE) determined on the film.



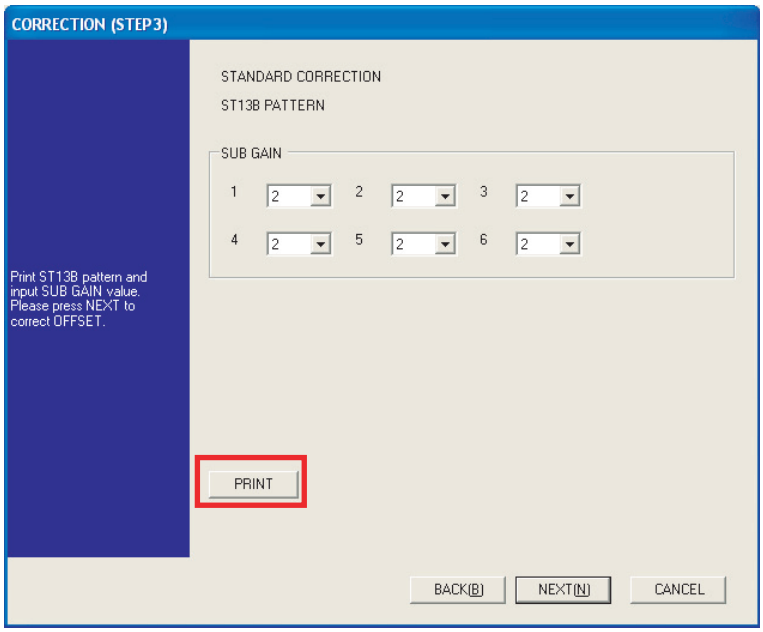
10 Specify the numbers (PHASE and SUB PHASE) determined in step 7 to step 9 in each entry field.

11 Click [NEXT(N)].



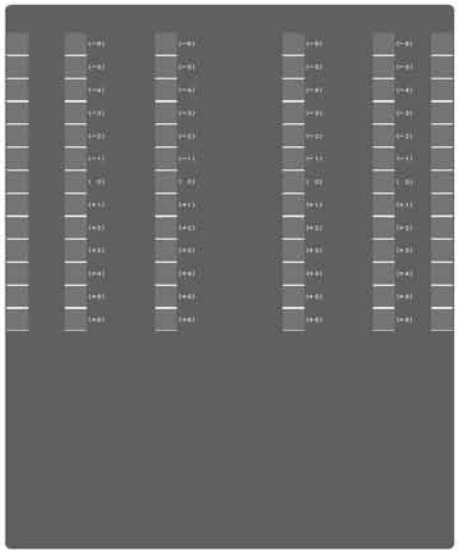
The “CORRECTION (STEP3)” window appears.

12 Click the [PRINT] button.



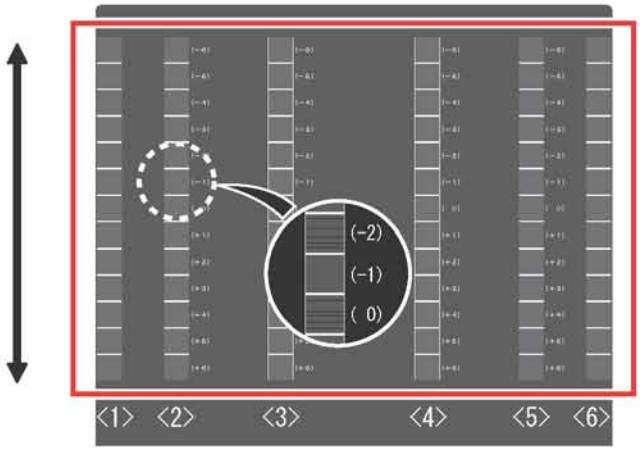
The ST13B PATTERN is printed.

Example: ST13B PATTERN



13 Observe the center of each patch in the <1> to the <6> row of the printed ST13B PATTERN, using a magnifying glass, and determine the number (SUB GAIN) that has the least row-by-row horizontal streak unevenness (0.16 mm pitch) of the patches from (-6) to (+6).

Write down the number (SUB GAIN) determined on the film.

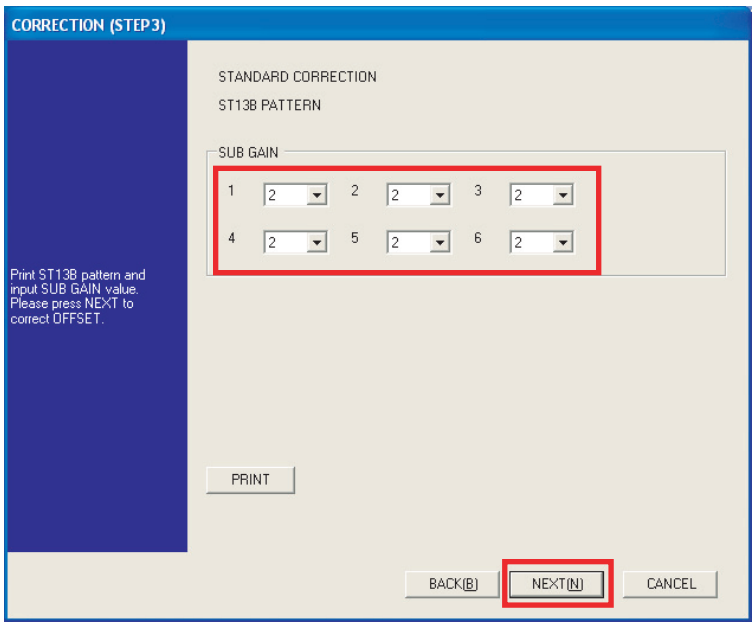


Note

- The number to be determined here is the one that is attached to each density patch in the ST13B test pattern.
- When comparing patches, observe the center of each patch by scanning from the top or bottom with the magnifying glass.

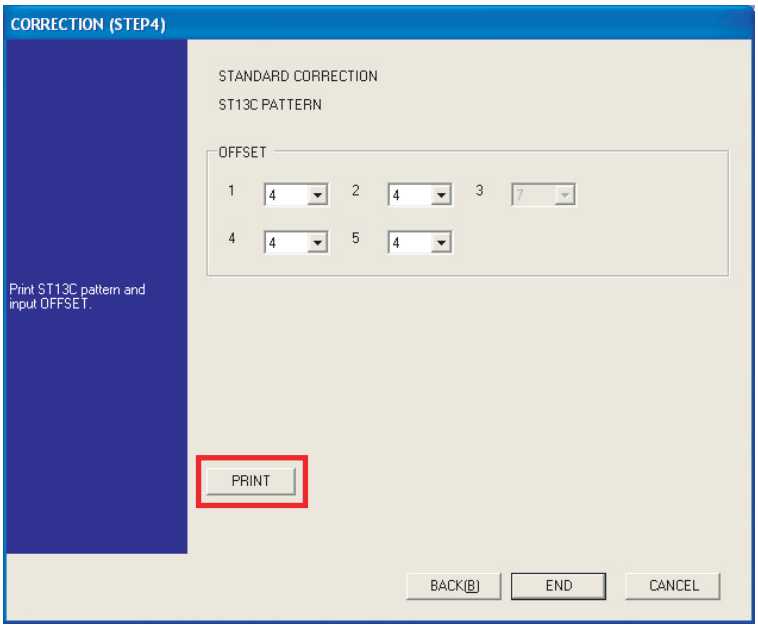
14 Specify the number (SUB GAIN) determined in step 13 in each entry field.

15 Click [NEXT(N)].



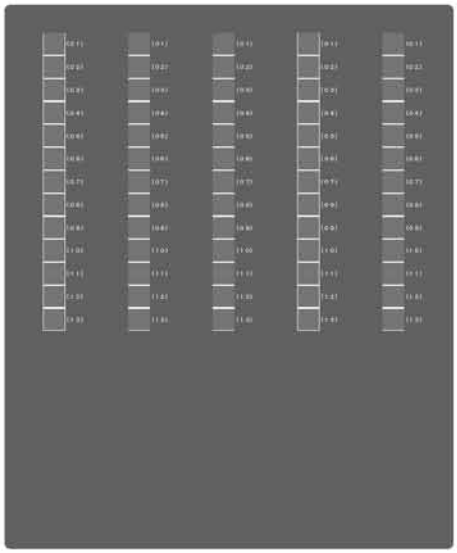
The “CORRECTION (STEP4)” window appears.

16 Click the [PRINT] button.



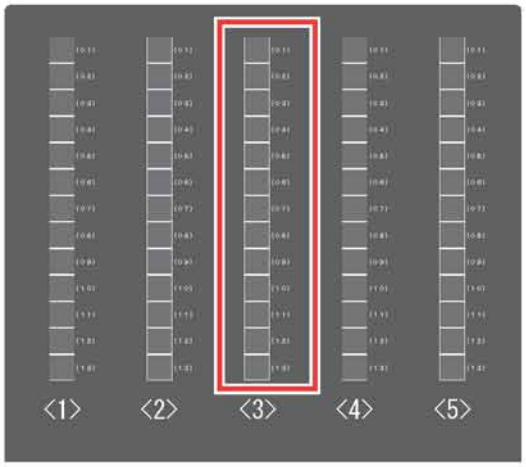
The ST13C PATTERN is printed.

Example: ST13C PATTERN



17 Measure the center of each patch in the <3> row of the printed ST13C PATTERN, using the densitometer.

Write down the measurement result on the film as a base value.

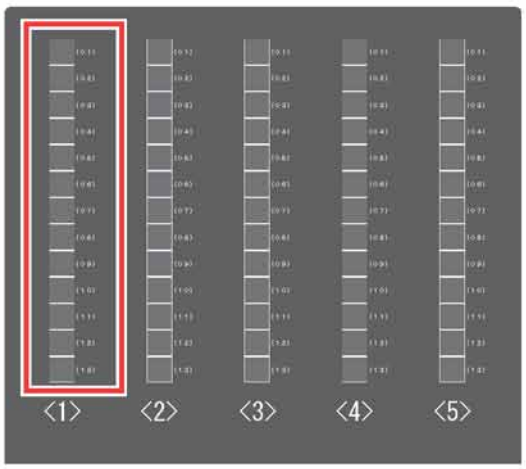


18 Observe the center of each patch in the <1> row of the printed ST13C PATTERN, using the densitometer, and determine the number (OFFSET) nearest to the base value measured in step 17 of the patches from (01) to (13).

Write down the number (OFFSET) determined on the film.

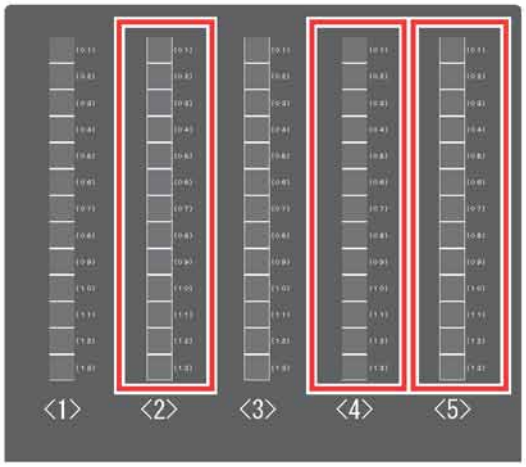
Note

- The number to be determined here is the one that is attached to each density patch in the ST13C test pattern.
- Compare the measured result of the <1> row with the standard value of the same number of the <3> row.



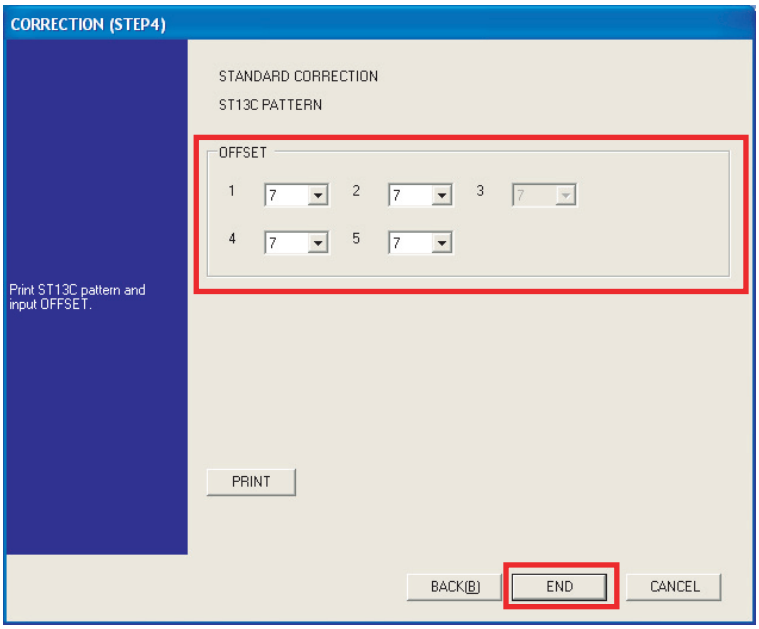
19 Repeat the step 18 and measure the center of each patch in the <2>, <4>, and <5> rows, using the densitometer, and determine the number (OFFSET) nearest to the base value measured in step 17 of the patches from (01) to (13).

Write down the number (OFFSET) determined on the film.



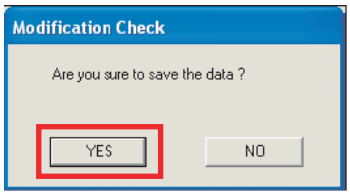
20 Specify the number (OFFSET) determined in step 18 to step 19 in each entry field “OFFSET”.

21 Click the [END] button.



The window appears, confirming saving.

22 Click the [YES] button.



The “CORRECTION (STEP4)” window is closed. Then you will return to the maintenance menu window.

■ Work after setting

After setting each item, perform the following work.

- Print 1 sheet of flat pattern (D = 1.5) and hold it over light box to check the film for streak unevenness and density unevenness.
- If the pitch unevenness of the image (0.16 mm) and the difference in density of the image in horizontal direction are not corrected properly, make a correction again.

This is the end of the process of correcting unevenness.

14.2 Checking and Adjusting Image Data Writing Position

If the image data writing position deviates, you can adjust in the “PRODUCT SETUP” window of DRYPRO 832 Utility Tool.

> **Caution**
> Be sure to check and adjust the image data writing position after performing the following tasks:
> - When the exposure unit was replaced
> - When the sub scan unit V-Sync sensor was replaced

14.2.1 Checking Image Data Writing Position

Check the image data for deviation by printing the frame pattern and measuring the difference between the unexposed portions on both edges of the film.

1 Start DRYPRO 832 Utility Tool with reference to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”.

The Maintenance Menu window appears.

2 Click the [TEST PRINT] button under “PRINT INFO.”.

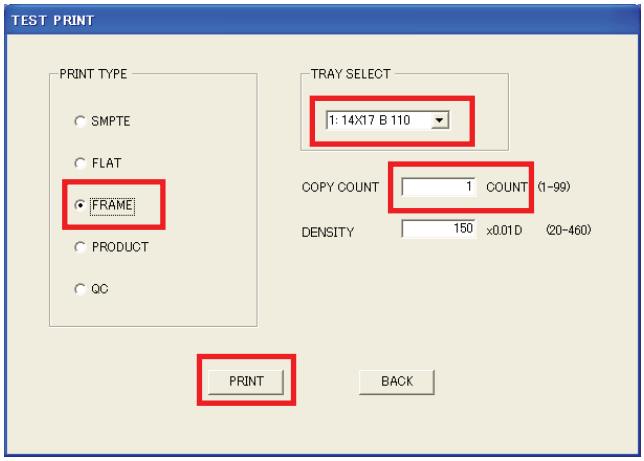
The “TEST PRINT” window appears.

3 Select “FRAME” from “PRINT TYPE”.

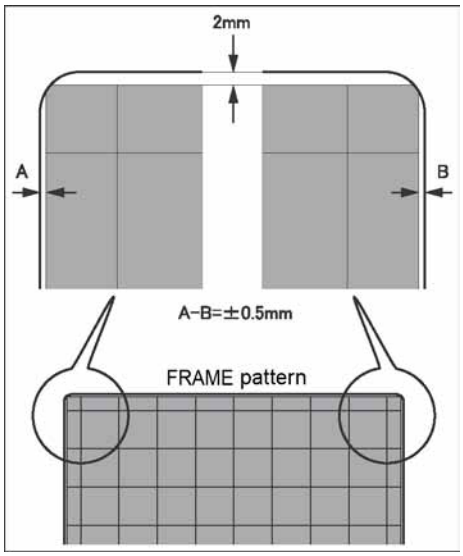
The “FRAME” pallet appears.

4 Select the tray from which you want to print the frame pattern from the “TRAY SELECT” drop-down list and specify “DENSITY” and “COPY COUNT”.

5 Click the [PRINT] button.



The FRAME pattern is printed from the selected tray.



6 Place film with the word “FRAME” is visible at the lower left of the film and check the width of the end of the film and the unexposed portions on both sides.

- Check that the difference between unexposed portions of the film on both sides is within ±0.5mm.
- Check that the unexposed portion at the end of the film is 2mm.

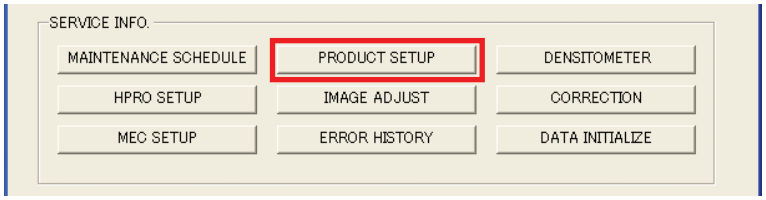
This is the end of the process of checking the image data writing position.

- If the difference between unexposed portions of the film on both sides exceeds 0.5 mm, go to “14.2.2 Adjusting Main Scan OFFSET (Lateral) Writing Position (Page 14-15)” and adjust the Main Scan OFFSET (lateral) writing position.
- If the unexposed portion at the end of the film is not within the range of 2mm ± 0.2mm, go to“14.2.3 Adjusting Sub Scan OFFSET (Vertical) Writing Position (Page 14-16)” and adjust the Sub Scan OFFSET (vertical) writing position.

14.2.2 Adjusting Main Scan OFFSET (Lateral) Writing Position

If the difference between unexposed portions of the film on both sides exceeds 0.5mm, adjust the Main Scan OFFSET (lateral) writing position.

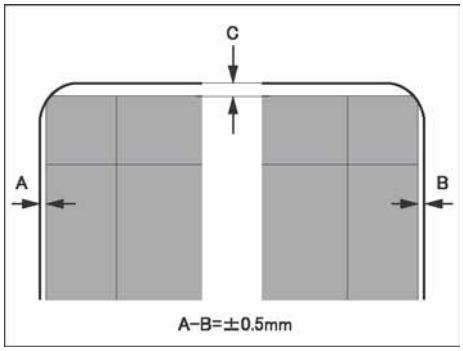
1 Click the [PRODUCT SETUP] button under “SERVICE INFO.”.



The “PRODUCT SETUP” window appears.

2 Enter the serial number of this product in “SERIAL NO.”.

3 Enter the length of the unexposed portions measured in “14.2.1 Checking Image Data Writing Position (Page 14-13)” in the “HD OFFSET” entry field after calculating using the following formula.



If the unexposed portion A is longer:

Example: A = 2.0mm, B = 0.4mm

- （B-A）/ 2 =（0.4 - 2.0）/ 2 = -0.8

Result: Enter a numeric value of HD OFFSET from which “80” is subtracted.

If the unexposed portion A is shorter:

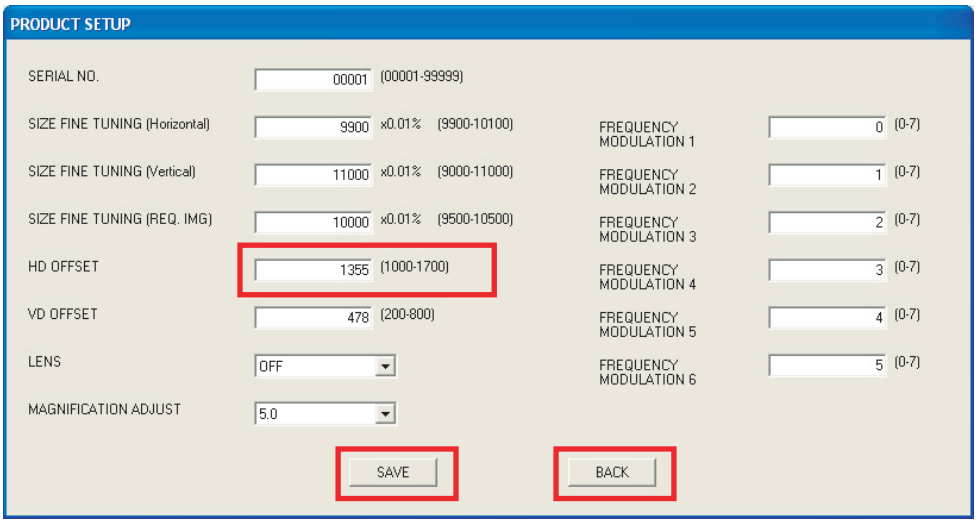
Example: A = 0.3mm, B = 1.5mm

- （B-A）/ 2 =（1.5 - 0.3）/ 2 = 0.6

Result: Enter a numeric value of HD OFFSET to which “60” is added.

4 Click the [SAVE] button.

5 Click the [BACK] button.



The “PRODUCT SETUP” window is closed. Then you will return to the Maintenance Menu window.

6 Perform “14.2.1 Checking Image Data Writing Position (Page 14-13)” again and check that the image writing position has been properly adjusted.

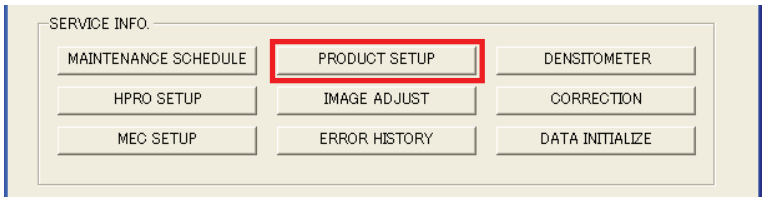
> **Caution** If it was not adjusted properly, perform “14.2.2 Adjusting Main Scan OFFSET (Lateral) Writing Position (Page 14-15)” again.

This is the end of the process of adjusting the Main Scan OFFSET (lateral) writing position.

14.2.3 Adjusting Sub Scan OFFSET (Vertical) Writing Position

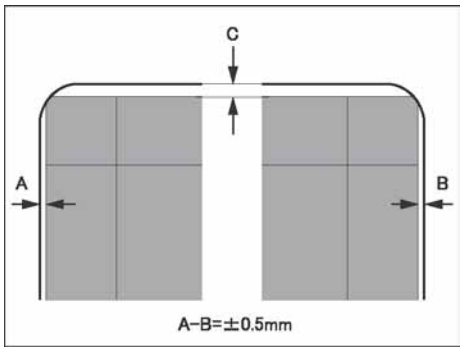
If the unexposed portion at the end of the film is not 2mm, adjust the Main Scan OFFSET (lateral) writing position.

1 Click the [PRODUCT SETUP] button under “SERVICE INFO.”.



The “PRODUCT SETUP” window appears.

2 Enter the serial number of this product in “SERIAL NO.”.



3 Enter the length of the unexposed portions measured in “14.2.1 Checking Image Data Writing Position (Page 14-13)” in the “VD OFFSET” entry field after calculating using the following formula.

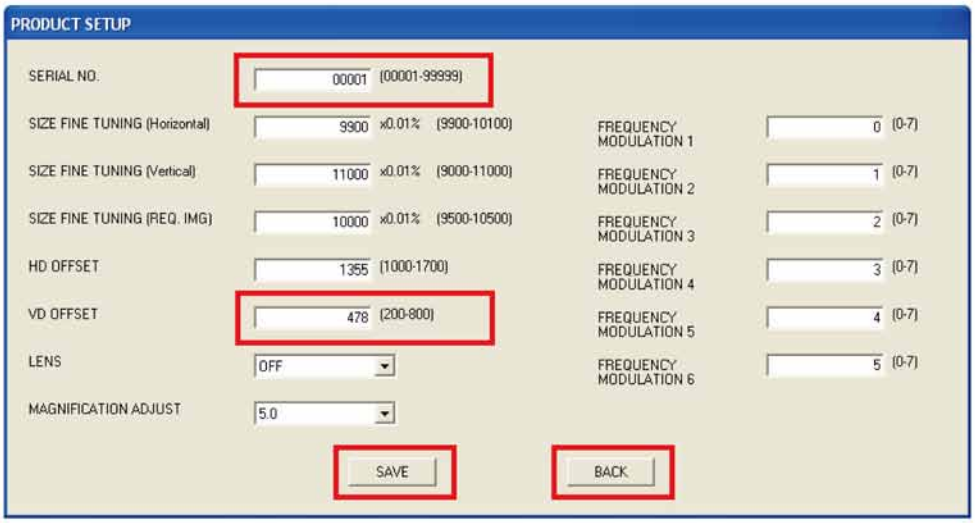
Example: C = 5.0 mm

- 2.0 - 5.0 = - 3.0

Result: Enter a numeric value of VD OFFSET from which “300” is subtracted.

4 Click the [SAVE] button.

5 Click the [BACK] button.



The “PRODUCT SETUP” window is closed. Then you will return to the Maintenance Menu window.

6 Perform “14.2.1 Checking Image Data Writing Position (Page 14-13)” again and check that the image writing position has been properly adjusted.

> **Caution** If it was not adjusted properly, perform “14.2.3 Adjusting Sub Scan OFFSET (Vertical) Writing Position (Page 14-16)” again.

This is the end of the process of adjusting the Sub Scan OFFSET (vertical) writing position.

14.3 Checking and Fine Tuning the Print Size

If there is variation between the Main Scan OFFSET and Sub Scan OFFSET, you can adjust in the “PRODUCT SETUP” window of DRYPRO 832 Utility Tool.

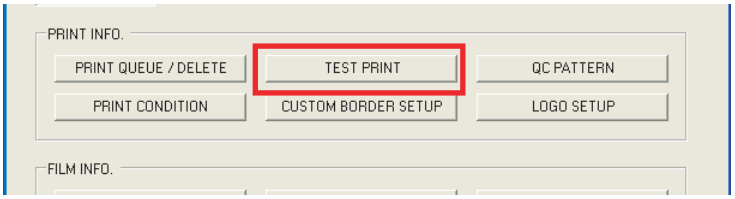
14.3.1 Checking Print Size

Print a FRAME pattern, and check the size.

1 Start DRYPRO 832 Utility Tool with reference to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”.

The Maintenance Menu window appears.

2 Click the [TEST PRINT] button under “PRINT INFO.”.



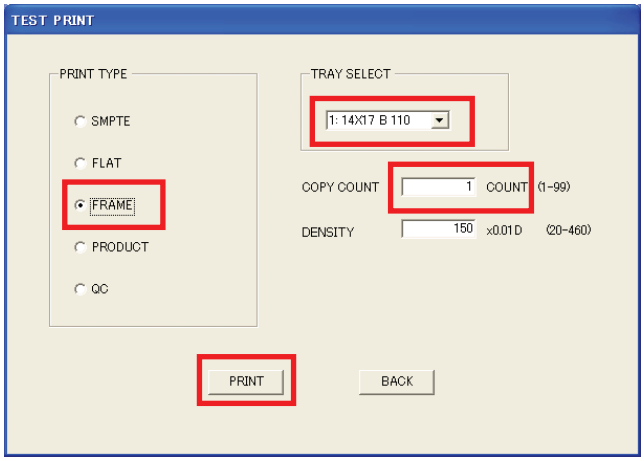
The “TEST PRINT” window appears.

3 Select “FRAME” from “PRINT TYPE”.

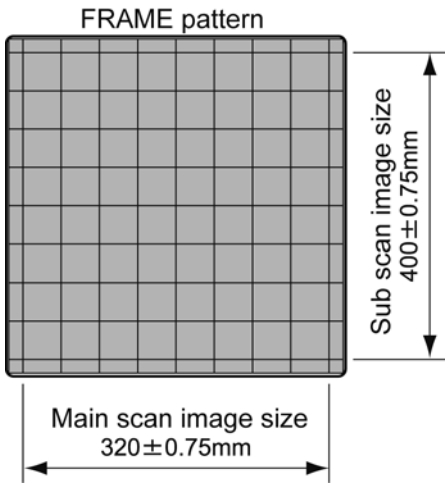
The “FRAME” pallet appears.

4 Select the tray from which you want to print the frame pattern from the “TRAY SELECT” dropdown list and specify “DENSITY” and “COPY COUNT”.

5 Click the [PRINT] button.



The FRAME pattern is printed from the selected tray.



6 Place the film so the word “FRAME” is visible at the lower left of the film, and check the size.

- Check that the Main Scan OFFSET is 320±0.75mm.
- Check that the Sub Scan OFFSET is 400±0.75mm.

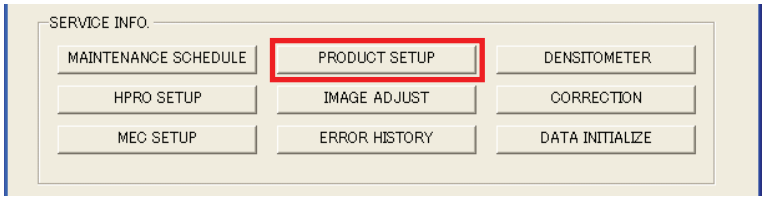
This is the end of the process of verifying the frame size.

- If the Main Scan OFFSET requires adjustment, proceed to“14.3.2 Main Scan OFFSET Adjustment (Page 14-19)” and adjust the print size.
- If the Sub Scan OFFSET requires adjustment, proceed to “14.3.3 Sub Scan OFFSET Adjustment (Page 14-20)” and adjust the print size.

14.3.2 Main Scan OFFSET Adjustment

If the Main Scan OFFSET requires adjustment, adjust it in the “PRODUCT SETUP” window of the DRYPRO 832 Utility Tool.

1 Click the [PRODUCT SETUP] button under “SERVICE INFO.”.

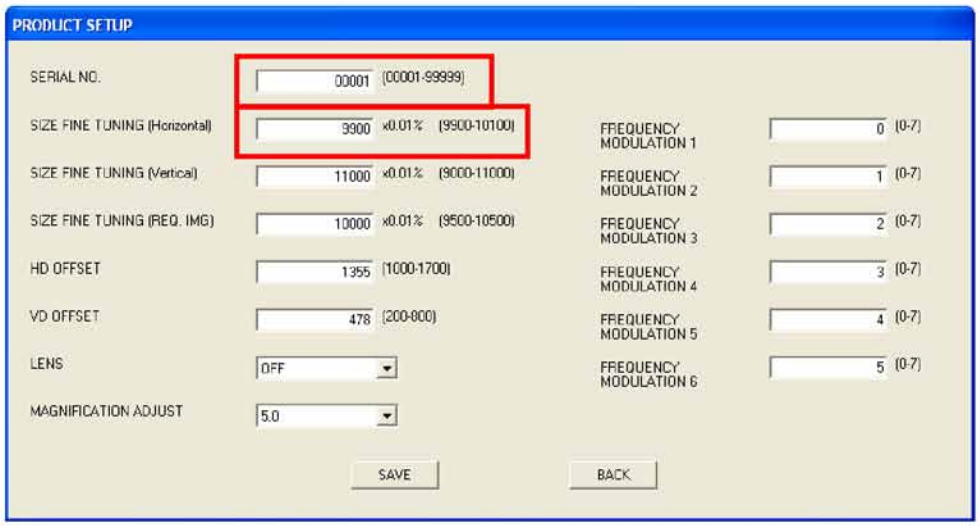


The “PRODUCT SETUP” window appears.

2 Enter the serial number of this product in “SERIAL NO.”.

3 Change the settings in the “SIZE FINE TUNING (Horizontal)” entry field.

	Example	Calculation method	Corresponds to
Example 1	1mm short	“1” / 320 ×100 ×100 = 31.25 Round off to “31”	Add “31” to the value in “SIZE FINE TUNING (Horizontal)” and enter the new value.
Example 2	2mm long	“2” / 320 ×100 ×100 = 62.5 Round off to “63”	Subtract “63” from the value in “SIZE FINE TUNING (Horizontal)” and enter the new value.



4 Click the [SAVE] button.

5 Click the [BACK] button.

The “PRODUCT SETUP” window is closed. Then you will return to the “Maintenance Menu” window.

6 Perform “14.3.1 Checking Print Size (Page 14-17)” again, and check that the Main Scan OFFSET has been adjusted correctly.

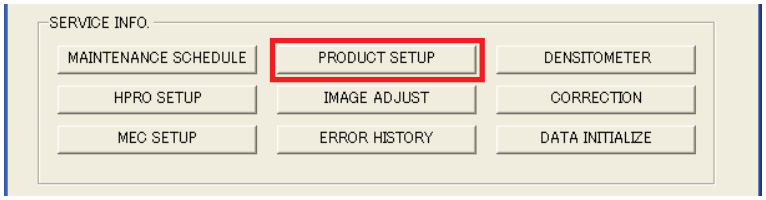
> **Caution** If it has not been adjusted correctly, perform “14.3.2 Main Scan OFFSET Adjustment (Page 14-19)”.

This is the end of the process of adjusting the Main Scan OFFSET.

14.3.3 Sub Scan OFFSET Adjustment

If the Sub Scan OFFSET requires adjustment, adjust it in the “PRODUCT SETUP” window of the DRYPRO 832 Utility Tool.

1 Click the [PRODUCT SETUP] button under “SERVICE INFO.”.

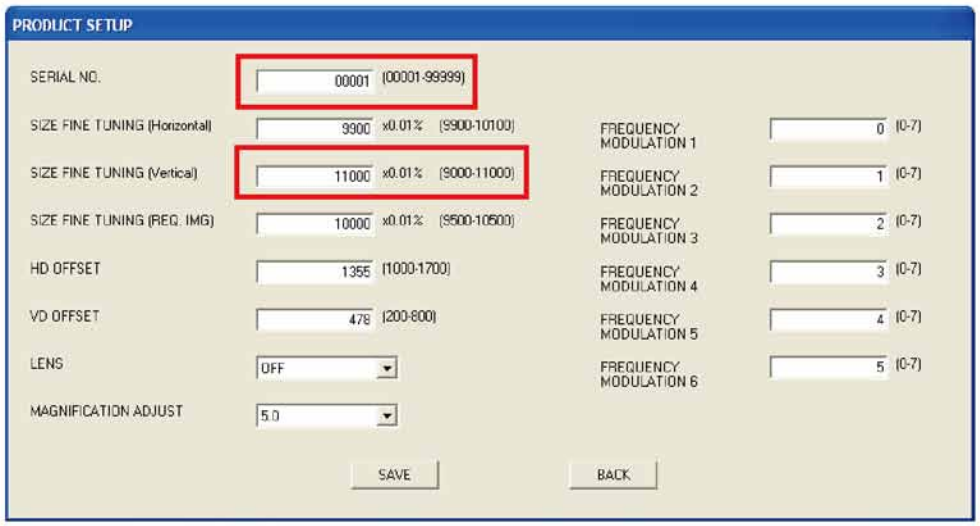


The “PRODUCT SETUP” window appears.

2 Enter the serial number of this product in “SERIAL NO.”.

3 Change the settings in the “SIZE FINE TUNING (Vertical)” entry field.

	Example	Calculation method	Corresponds to
Example 1	1mm short	“1” / 400 ×100 ×100 = 25	Add “25” from the value in “SIZE FINE TUNING (Vertical)” and enter the new value.
Example 2	3mm long	“3” / 400 ×100 ×100 = 75	Subtract “75” from the value in “SIZE FINE TUNING (Vertical)” and enter the new value.



4 Click the [SAVE] button.

5 Click the [BACK] button.

The “PRODUCT SETUP” window is closed. Then you will return to the Maintenance Menu window.

6 Perform “14.3.1 Checking Print Size (Page 14-17)” again, and check that the Sub Scan OFFSET has been adjusted correctly.

> **Caution** If it has not been adjusted correctly, perform “14.3.3 Sub Scan OFFSET Adjustment (Page 14-20)”.

This is the end of the process of adjusting the Sub Scan OFFSET.

Chapter 15 DRYPRO 832 Utility Tool

Each item of the DRYPRO 832 Utility Tool will be described below.

15.1 DRYPRO 832 Utility Tool Start 15-2
15.2 Print Queue/Delete 15-7
15.3 Print Condition 15-9
15.4 Test Print 15-12
15.5 Custom Border Setup 15-14
15.6 QC Pattern 15-15
15.7 Logo Setup 15-16
15.8 Film Data 15-18
15.9 Film Setup 15-20
15.10 Calibration Setup 15-23
15.11 System Setup 15-25
15.12 Time Layout 15-28
15.13 System Reset 15-30
15.14 Maintenance Schedule 15-31
15.15 HPRO Setup 15-33
15.16 MEC Setup 15-36
15.17 Product Setup 15-37
15.18 Image Adjust 15-39
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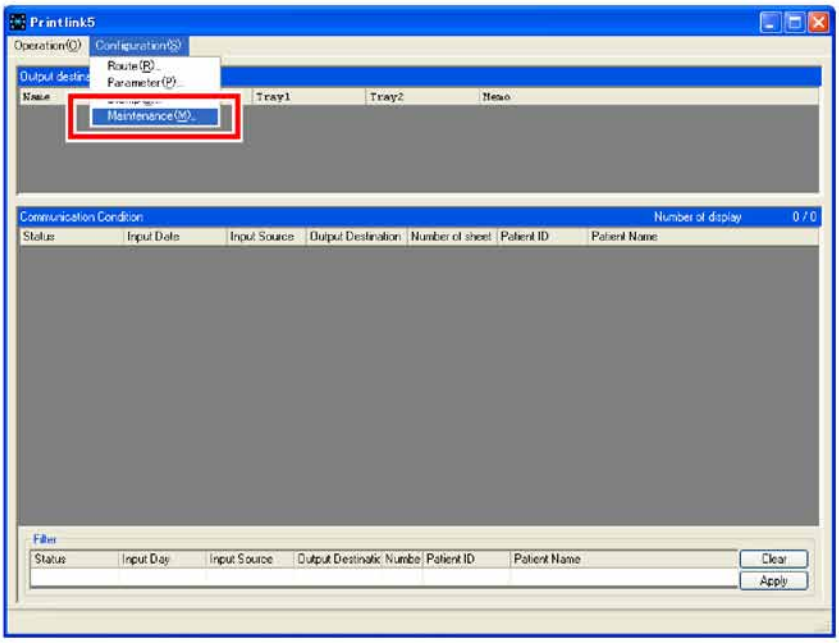
15.1 DRYPRO 832 Utility Tool Start

The method for starting up DRYPRO 832 Utility Tool will be described.

1 Select “Maintenance(M)” from the “Configuration” menu in the Printlink5 main window.



The “Password Input” window appears.

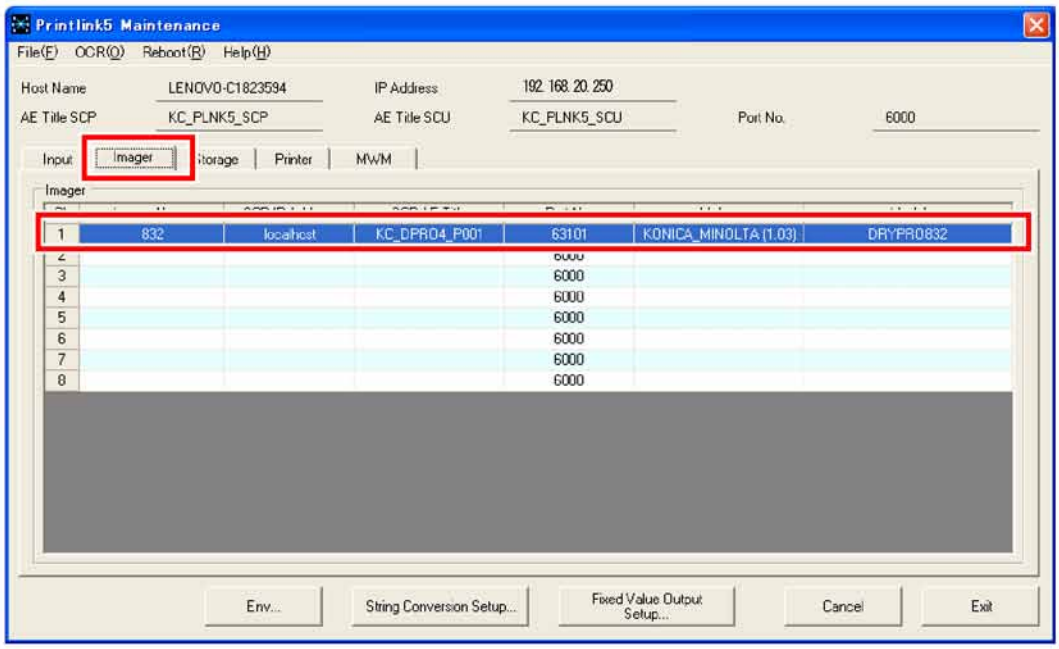
2 Enter “5678” in the “Password Input” window and click the [OK] button.

The maintenance tool is started and the “Printlink5 Maintenance” main window is displayed.

3 Click on the “Imager” tab.

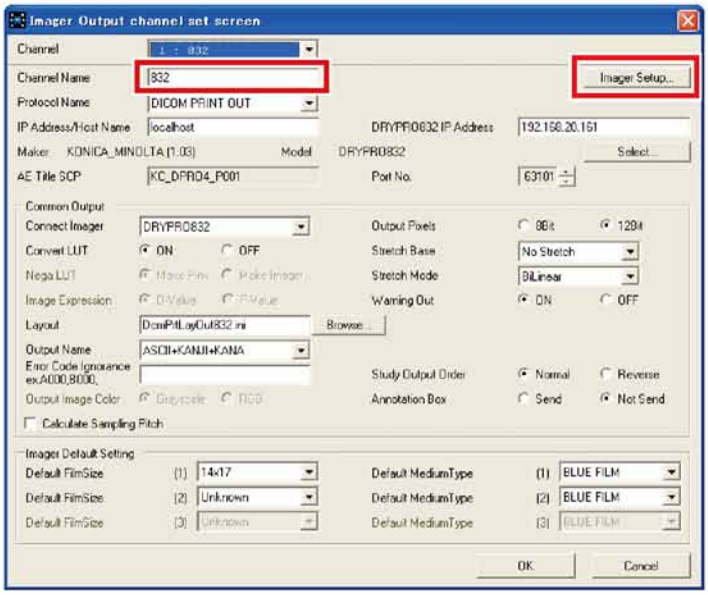
The “Imager” palette is displayed.

4 Double click the Ch line assigned to the DRYPRO 832 for which the settings are to be changed in the Imager of the “Printlink5 Maintenance” main window.



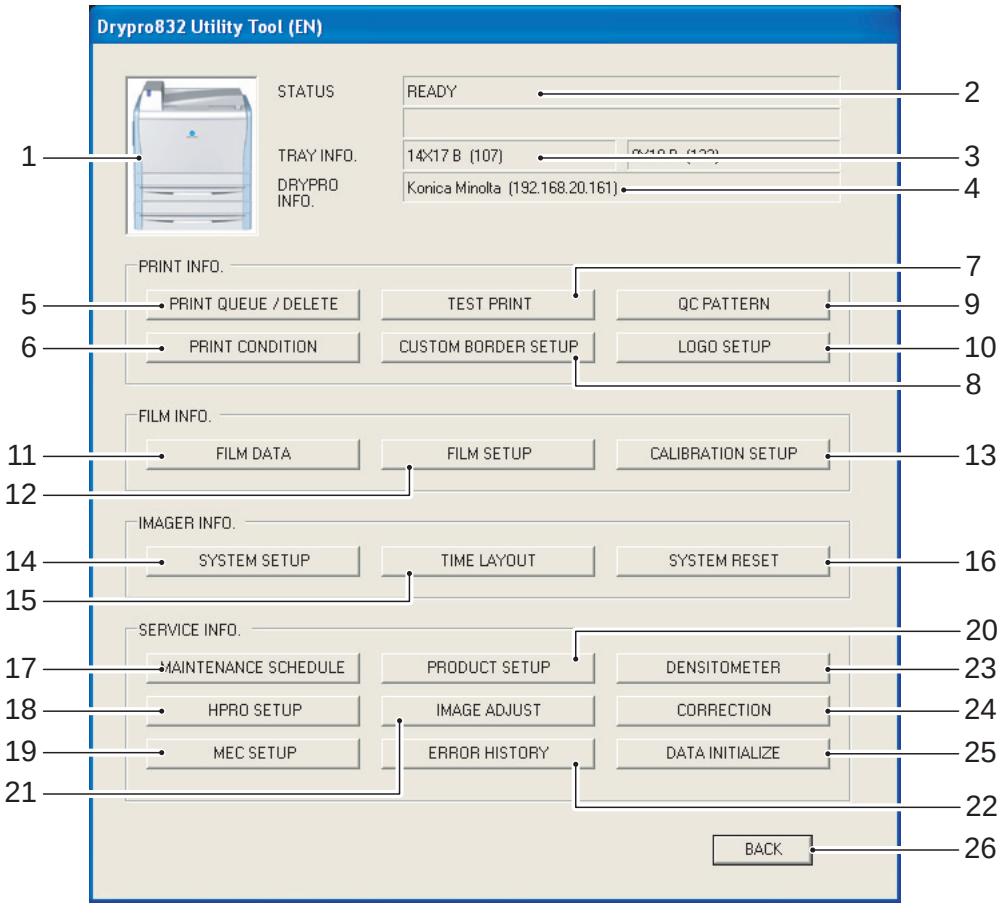
The “Imager Output channel set screen” window appears.

5 Click the [Imager Setup] button.



The maintenance menu window of the DRYPRO 832 Utility Tool is displayed under the service level authority.

DRYPRO 832 Utility Tool - Maintenance Menu Window (Service Level Authority)



The following items are shown in the Maintenance Menu window of the DRYPRO 832 Utility Tool.

No.	Item	Description of Setting
1	DRYPRO 832 Icon	Click when an error occurs to view the “Countermeasures” window.
2	STATUS	The currently status of the device is displayed.
3	TRAY INFO.	The size and type of the packaged film will be displayed.
4	DRYPRO INFO.	The name and IP address that are set will be displayed.
PRINT INFO		
5	[PRINT QUEUE / DELETE] button	When this button is clicked, the “PRINT QUEUE/DELETE” window will appear, and the status and other information for each print job in the DRYPRO 832 can be confirmed, or the print job may be deleted. For more information, see “15.2 Print Queue/Delete (Page 15-7)”.
6	[PRINT CONDITION] button	When clicked, the “PRINT CONDITION” window will be displayed, and the print conditions for each connected diagnostic device can be set. For more information, see “15.3 Print Condition (Page 15-9)”.
7	[TEST PRINT] button	When clicked, the “TEST PRINT” window opens, and various patterns can be printed. For more information, see “15.4 Test Print (Page 15-12)”.
8	[CUSTOM BORDER SETUP] button	When clicked, the “CUSTOM BORDER SETUP” window opens, and the border size of the film can be set. For more information, see “15.5 Custom Border Setup (Page 15-14)”.
9	[QC PATTERN] button	When clicked, the “QC PATTERN” window will open, and the standard values and results of the QC pattern can be confirmed. For more information, see “15.6 QC Pattern (Page 15-15)”.

No.	Item	Description of Setting
10	[LOGO SETUP] button	When clicked, the “LOGO SETUP” window opens, and the logo mark which is output to the film can be set. For more information, see “15.7 Logo Setup (Page 15-16)”.
FILM INFO		
11	[FILM DATA] button	When clicked, the “FILM DATA” window opens, and the film data can be confirmed by type. For more information, see “15.8 Film Data (Page 15-18)”.
12	[FILM SETUP] button	When clicked, the “FILM SETUP” window opens, and settings can be made for the film loaded in the supply tray. For more information, see “15.9 Film Setup (Page 15-20)”.
13	[CALIBRATION SETUP] button	When clicked, the “CALIBRATION SETUP” window opens, and the method for automatically calibrating the density and the timing for calibration can be set. For more information, see “15.10 Calibration Setup (Page 15-23)”.
IMAGER INFO		
14	[SYSTEM SETUP] button	When clicked, the “SYSTEM SETUP” window opens, and the internal functions of the system can be set. For more information, see “15.11 System Setup (Page 15-25)”.
15	[TIME LAYOUT] button	When clicked, the “TIME LAYOUT” window opens, and the display format of the date and time can be set. For more information, see “15.12 Time Layout (Page 15-28)”.
16	[SYSTEM RESET] button	When clicked, the “SYSTEM RESET” window opens, and all jobs can be deleted. For more information, see “15.13 System Reset (Page 15-30)”.
SERVICE INFO		
17	[MAINTENANCE SCHEDULE] button	When clicked, the “MAINTENANCE SCHEDULE” window opens, and the periodic inspection schedule can be initialized. For more information, see “15.14 Maintenance Schedule (Page 15-31)”.
18	[HPRO SETUP] button	When clicked, the “HPRO SETUP” window opens, and the constants for controlling the HPRO unit can be set. For more information, see “15.15 HPRO Setup (Page 15-33)”.
19	[MEC SETUP] button	When clicked, the “MEC SETUP” window opens, and the MEC SETUP data can be set. For more information, see “15.16 MEC Setup (Page 15-36)”.
20	[PRODUCT SETUP] button	When clicked, the “PRODUCT SETUP” window opens, and the constants for controlling all of the hardware can be set. For more information, see “15.17 Product Setup (Page 15-37)”.
21	[IMAGE ADJUST] button	When clicked, the “IMAGE ADJUST” window opens, and the constants for controlling the image quality unit can be set. For more information, see “15.18 Image Adjust (Page 15-39)”.
22	[ERROR HISTORY] button	When clicked, the “ERROR HISTORY” window opens, and the history of errors which have occurred with DRYPRO 832 or Printlink5-IN can be confirmed. For more information, see “15.19 Error History (Page 15-41)”.
23	[DENSITOMETER] button	When clicked, the “DENSITOMETER” window opens, and the built-in densitometer can be calibrated, and the setup density can be confirmed. For more information, see “15.20 Densitometer (Page 15-42)”.
24	[CORRECTION] button	When clicked, the “CORRECTION” window opens, and calibration of the image variation can be performed. For more information, see “14.1 Image Unevenness Correction (Page 14-2)”.

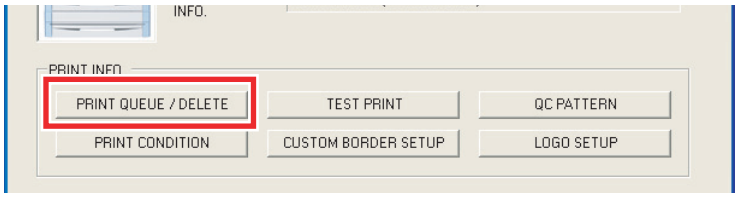
No.	Item	Description of Setting
25	[DATA INITIALIZE] button	When clicked, the “DATA INITIALIZE” window opens, and the data such as the film data and the system setting total operating time can be returned to the factory shipped condition. For more information, see “15.21 Data Initialize (Page 15-54)”.
26	[BACK] button	This completes the DRYPRO 832 Utility Tool.

15.2 Print Queue/Delete

The status and information for print jobs in DRYPRO 832 can be confirmed, and print jobs can be deleted.
Set print parameters for each connected diagnostic device.

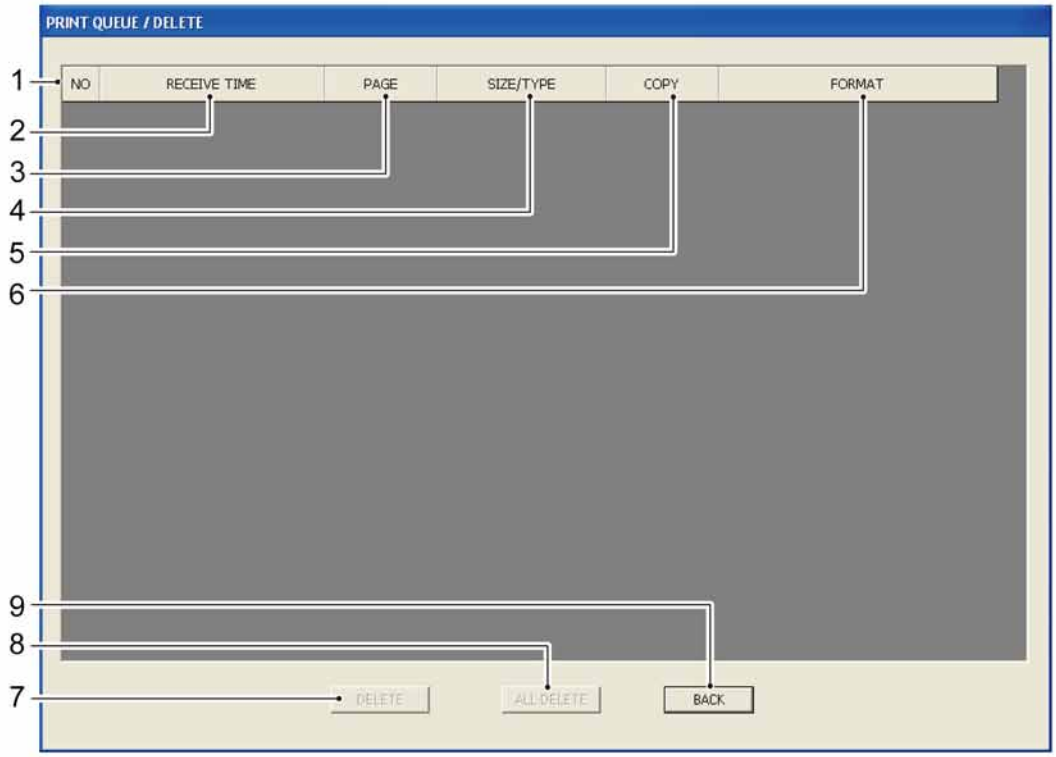
1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [PRINT QUEUE/DELETE] button in the “PRINT INFO”.



The “PRINT QUEUE/DELETE” window appears.

“PRINT QUEUE/DELETE” Window



The “PRINT QUEUE/DELETE” window contains the following items:

No.	Setup Items	Description of Setting
1	No.	The print job number is shown.
2	RECEIVE TIME	The date and time that the image was received is shown.
3	PAGE	The page number of the output film attached to each diagnostic device is shown.
4	SIZE/TYPE	The size and type of the film to be output will be displayed.
5	COPY	The number of pages printed or copied will be shown.
6	FORMAT	The number of frames is shown.
7	[DELETE] button	The selected job is deleted.

No.	Setup Items	Description of Setting
8	[ALL DELETE] button	All of the jobs displayed are deleted.
9	[BACK] button	The “PRINT QUEUE/DELETE” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

3 Click the [DELETE] button or the [ALL DELETE] button.

- When deleting jobs individually, select the job to be deleted from the job list, and click the [DELETE] button.
- To delete all of the jobs, click the [ALL DELETE] button.

The job will be deleted.

4 Click the [BACK] button.

The “PRINT QUEUE/DELETE” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

15.3 Print Condition

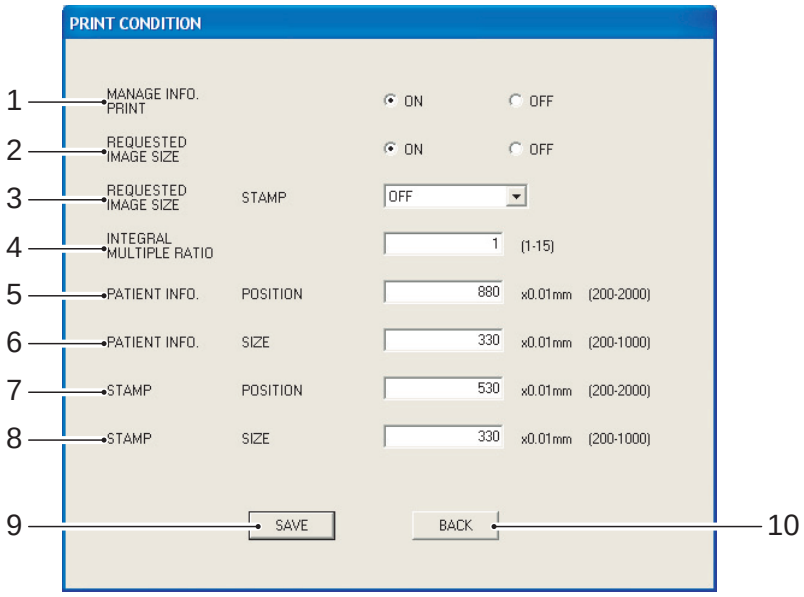
Set print parameters for each connected diagnostic device.

1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [PRINT CONDITION] button under "PRINT INFO".

The "PRINT CONDITION" window appears.

"**PRINT CONDITION**" **window**



The "PRINT CONDITION" window contains the following setup items:

No.	Setup Items	Description of Setting	
1	MANAGE INFO. PRINT	Specify whether or not to print film management information on the upper part of the film. Default value: ON	
		ON	Film management information is printed.
		OFF	Film management information is not printed.
2	REQUESTED IMAGE SIZE	Set the operation when image size is specified from the diagnostic device. Default value: ON	
		ON	Print in the specified size.
		OFF	Print ignoring the specified size.
		[Caution]: If the image size specified from the diagnostic device exceeds the film size, scale the image down and print. The reduction ratio can be printed as stamp information by setting the "REQUESTED IMAGE SIZE STAMP".	

No.	Setup Items	Description of Setting	
3	REQUESTED IMAGE SIZE STAMP	Set the position of the stamp of the reduction ratio to be printed when image size specified from the diagnostic device exceeds the film size. Default value: OFF	
		LEFT	Stamp is printed on the left edge of the film.
		RIGHT	Stamp is printed on the right edge of the film.
		OFF	Stamp is not printed.
4	INTEGRAL MULTIPLE RATIO	Set the enlargement factor. Setting range: 1-15 Default value: 1	
5	PATIENT INFO. POSITION	Set the position for the patient information to be printed (position from the bottom edge of the film). Default value: 880 For more information, see "■ Printing positions of logo, patient information, and stamp characters (Page 15-11)".	
6	PATIENT INFO. SIZE	Set the patient information print size (character height). Default value: 330 For more information, see "■ Printing positions of logo, patient information, and stamp characters (Page 15-11)".	
7	STAMP POSITION	Set the position of the stamp to be printed (position from the bottom edge of the film). Default value: 530 For more information, see "■ Printing positions of logo, patient information, and stamp characters (Page 15-11)".	
8	STAMP SIZE	Set the stamp print size (character height). Default value: 330 For more information, see "■ Printing positions of logo, patient information, and stamp characters (Page 15-11)".	
9	[SAVE] button	Save the changes and close the "PRINT CONDITION" to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	
10	[BACK] button	Discard the changes and close the "PRINT CONDITION" to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	

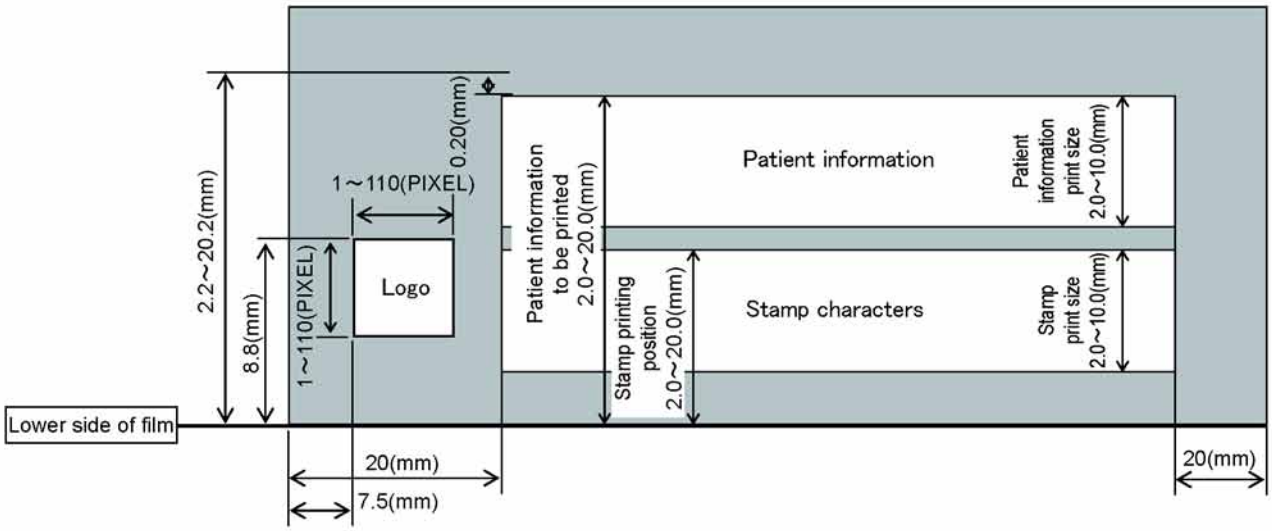
3 Set each item according to the status of use in the facility.

4 Click the [SAVE] button.

Save the changes and close the "PRINT CONDITION" to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

■ Printing positions of logo, patient information, and stamp characters

Details of the position of patient information to be printed, patient information print size, position of stamp to be printed, and stamp printing size are as follows:



15.4 Test Print

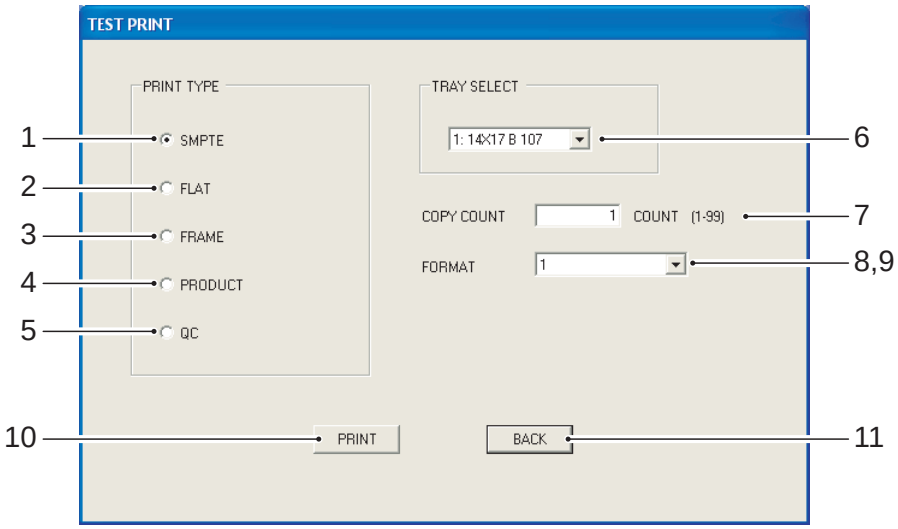
Various patterns will be test printed.

1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [TEST PRINT] button under “PRINT INFO.”.

The “TEST PRINT” window appears.

“TEST PRINT” window



The “TEST PRINT” window contains the following items:

No.	Setup Items	Description of Setting
1	SMPTE	Select when printing a SMPTE pattern.
2	FLAT	Select when printing a FLAT pattern.
3	FRAME	Select when printing a FRAME pattern.
4	PRODUCT	Select when printing a PRODUCT pattern.
5	QC	Select when printing a QC pattern.
6	TRAY SELECT	Select the tray for test printing.
7	COPY COUNT	Input the number of copies to be printed. Default value: 1
8	FORMAT	Select the number of frames for layout on a single film. Default value: 1 Note, the number of frames setting is only shown when “SMPTE” is selected as the print type.
9	DENSITY	Input the density value. Default value: 150 Note, the density setting is only shown when “FLAT”, “FRAME” or “PRODUCT” is selected as the print type.
10	[PRINT] button	Printing is performed at the set conditions.

No.	Setup Items	Description of Setting
11	[BACK] button	The “TEST PRINT” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

3 Set each of the print type and other items for test printing.

4 Click the [PRINT] button.

Printing will be performed according to the settings.

5 Click the [BACK] button.

The “TEST PRINT” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

15.5 Custom Border Setup

Set the film border size.

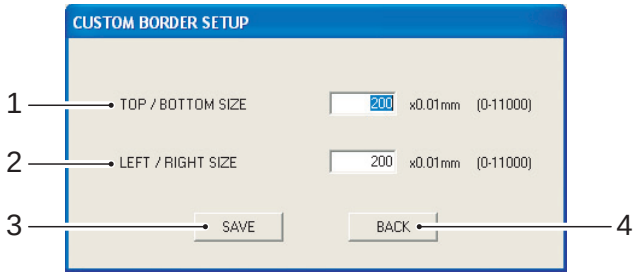
> **Note** This item must be set only if "CUSTOM" was selected under "Border size" in the "Input Channel set screen" window of Printlink5-IN.

1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [CUSTOM BORDER SETUP] button under "PRINT INFO.".

The "CUSTOM BORDER SETUP" window appears.

"CUSTOM BORDER SETUP" window



The "CUSTOM BORDER SETUP" window contains the following items:

No.	Setup Items	Description of Setting
1	TOP/BOTTOM SIZE	Set the top and bottom margins of film. Setting range: 0.1mm units Default value: 200
2	LEFT/RIGHT SIZE	Set the top and bottom margins of film. Setting range: 0.1mm units Default value: 0
3	[SAVE] button	Save the changes and close the "CUSTOM BORDER SETUP" window, and return to the DRYPRO 832 Utility Tool Maintenance Menu window.
4	[BACK] button	Discard the changes and close the "CUSTOM BORDER SETUP" window to return to DRYPRO 832 Utility Tool Maintenance Menu window.

3 Set each item according to the status of use in the facility.

4 Click the [SAVE] button.

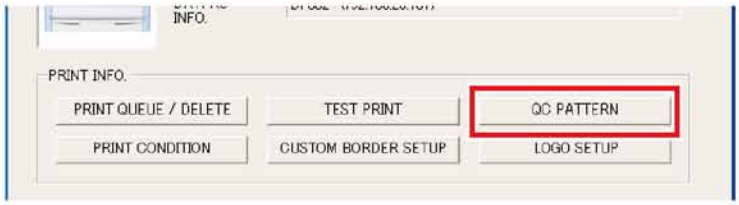
Save the changes and close the "CUSTOM BORDER SETUP" window, and return to the DRYPRO 832 Utility Tool Maintenance Menu window.

15.6 QC Pattern

The QC pattern will be displayed according to the value read by the DRYPRO 832 built-in densitometer.

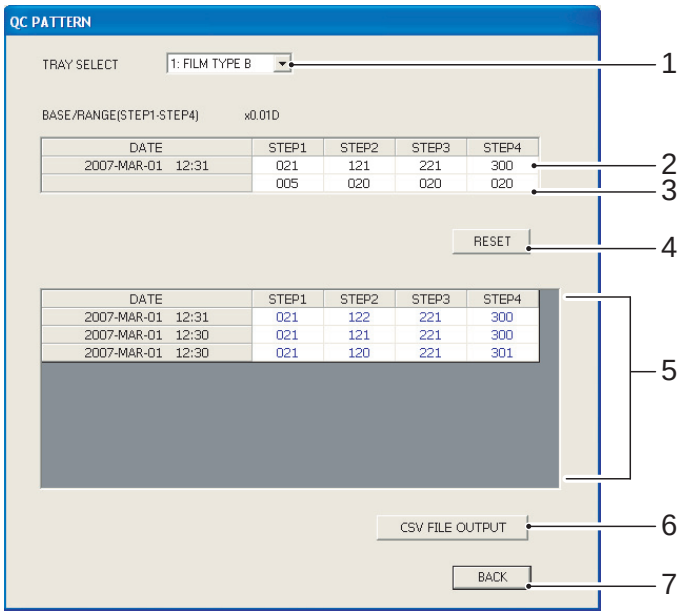
1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [QC PATTERN] button under “PRINT INFO”.



The “QC PATTERN” window is displayed.

“**QC PATTERN**” **window**



The “QC PATTERN” window contains the following items.

No.	Setup Items	Description of Setting
1	TRAY SELECT	Select the desired supply tray.
2	BASE (STEP1-4)	The reference value from STEP1-STEP4 and the reference value set date/time will be displayed.
3	RANGE (STEP1-4)	Displays the tolerance range of the reference value.
4	[RESET] button	Resets the reference value.
5	QC PATTERN	Up to 60 QC patterns will be displayed, beginning at the most recent. Values with “OK” results will be shown in blue, while values with “NG” results will be shown in red.
6	[CSV FILE OUTPUT] button	The QC pattern results will be output as a CSV formatted file.
7	[BACK] button	The “QC PATTERN” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

3 Verify the QC pattern results and output to a file if necessary.

4 Click the [BACK] button.

The “QC PATTERN” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

15.7 Logo Setup

The logo mark output to the film can be set.

Caution

- Save the original logo data into the specified folder of the PC, in order to be backed up.
- The logo mark cannot be set from the maintenance tool.
- If the stamp area and logo mark output position overlap one another, the stamp area takes precedence over the logo mark output position.
- Settings by CH cannot be made, so one setting is made for each system.
- To use the “OVERLAY” function of Printlink5-IN, use the Printlink5-IN logo settings, and set the DRYPRO 832 logo data output to “OFF”.

■ Logo data

Logo data that meets the following requirements must be prepared beforehand and saved to Printlink5-IN.

Item	Requirements
File format	bmp format
File size (recommended value)	• 86 × 86 pixels (maximum 110 pixels) • Any aspect ratio may be selected.
Tone	Grayscale 8 bits

■ Logo output position

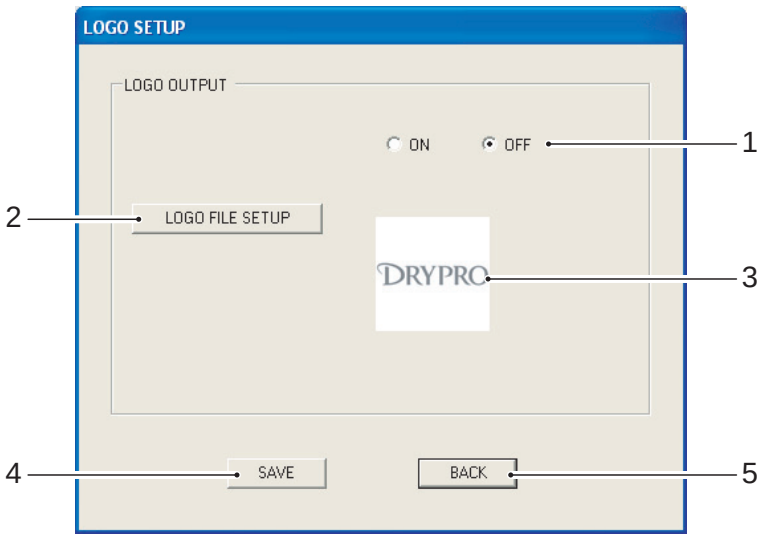
Logo mark is output to“15.3 Print Condition (Page 15-9)” in “■ Printing positions of logo, patient information, and stamp characters (Page 15-11)”.

1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [LOGO SETUP] button under “PRINT INFO”.

The “LOGO SETUP” window appears.

"LOGO SETUP" window



The "LOGO SETUP" window contains the following items.

No.	Setup Items	Description of Settings
1	LOGO OUTPUT	Select whether or not to output the logo mark to the film.
2	[LOGO FILE SETUP] button	A window for selecting the logo mark will open. Select the logo mark to be output.
3	Preview Display Field	A preview of the selected logo mark appears.
4	[SAVE] button	Save the changes and close the "LOGO SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.
5	[BACK] button	Discard the changes and close the "LOGO SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

3 Based on the use of the facility, turn the logo mark output ON/OFF and specify the logo mark.

4 Click the [SAVE] button.

Save the changes and close the "LOGO SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

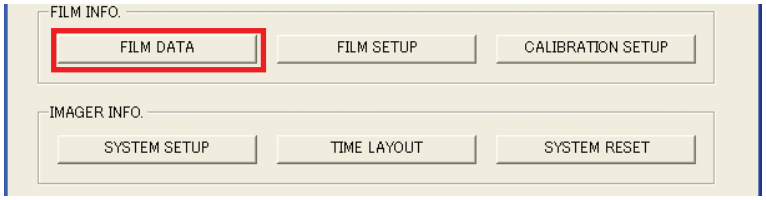
15.8 Film Data

Display film data of DRYPRO 832 by film size type, CH, and a combination of film size type and CH.
The total count can be displayed daily, weekly or monthly.

> **Note**
> Calibrations and test prints from DRYPRO 832 are not counted.

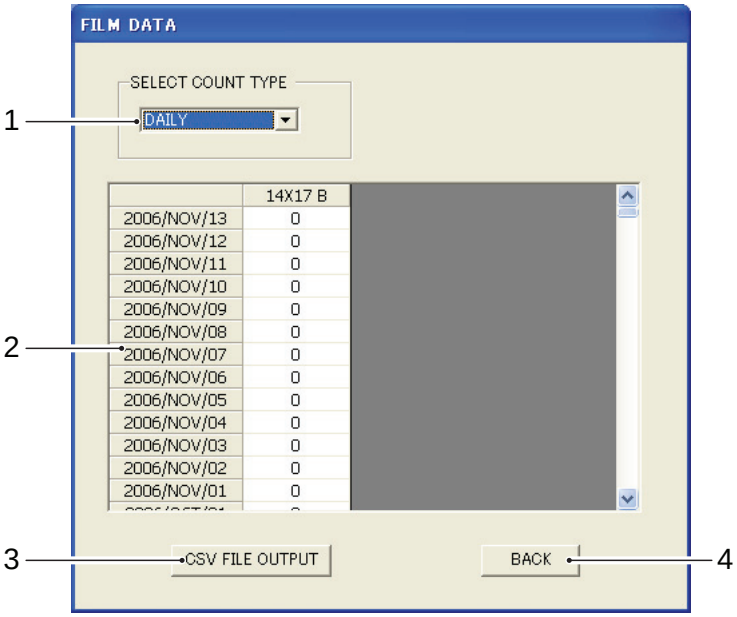
1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [FILM DATA] button under "FILM INFO.".



The "FILM DATA" window appears.

"**FILM DATA**" **window**



The "FILM DATA" window contains the following items.

No.	Setup Items	Description of Settings	
1	SELECT COUNT TYPE	Select the counting units to display from the pull-down. Initial setting: Daily	
		Daily	Displays the daily count results.
		Weekly	Displays the weekly count results.
		Monthly	Displays the monthly count results.
2	Count data display field	The count data appears according to the selected counting unit.	
3	[CSV FILE OUTPUT] button	Download the count results to a PC as a CSV file.	
4	[BACK] button	Close the "FILM DATA" window to return to the Maintenance Menu window.	

3 Verify the counting data or output to a file as necessary.

4 Click the [BACK] button.

The “FILM DATA” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

15.9 Film Setup

Set for the film loaded in the supply tray.

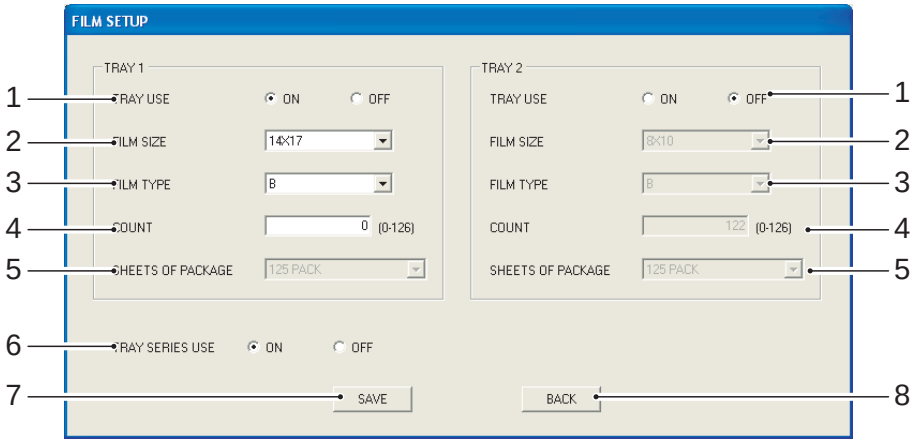
1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [FILM SETUP] button under “FILM INFO”.

The “FILM SETUP” window appears.

“FILM” window

> **Note**
> The following window shows the case where an optional Lispl-832 is not connected.
> If Lispl-832 is not installed, set items under “Tray 1” on the left side of the window.
> If Lispl-832 is installed, items on the right hand side of the window are enabled. Perform settings on Lispl-832 in items under “Tray 2”.



The “FILM SETUP” window contains the following items:

No.	Setup Items	Description of Settings	
1	TRAY USE	Set the supply tray to be used by DRYPRO 832. Default value: TRAY 1: ON TRAY 2: OFF	
		ON	Supply tray is used.
		OFF	Supply tray is not used.
		If an optional Lispl-832 is used, set the radio button for “TRAY USE” under “TRAY 2” to “ON”.	

No.	Setup Items	Description of Settings	
2	FILM SIZE	Select the size of film loaded from pulldown and set for each supply tray. Default value: 14 × 17 The following film sizes can be selected: • "14 × 17" : 14 × 17 inch-film • "14 × 14" : 14 × 14 inch-film • "11 × 14" : 11 × 14inch-film • "10 × 12" : 10 ×12 inch-film • " 8 ×10" : 8 × 10 inch-film	
3	FILM TYPE	Select the type of film loaded from the pulldown and set for each supply tray. Default value :B	
		B	Blue (Standard density film)
		C	Clear (Standard density film)
		HB	HBlue (High density film)
4	COUNT	Set the number of sheets of film loaded for each supply tray. Default value: 0	
5	SHEETS OF PACKAGE	Select the number of sheets in a package used in DRYPRO 832 from the pulldown and set for each supply tray. Default value: Standard package	
		125 PACK	125-sheet package
		50 PACK	50-sheet package
6	TRAY SERIES USE	Set operation if film of the same size and type is loaded in both Tray 1 (supply tray) and Tray 2 (Lispl-832). Default value: ON	
		ON	Empty notice to the input device is not made when there is film of the same size and type in Tray 2 (Lispl-832), when the film runs out in Tray 1 (supply tray). Same operation is executed when the film count is vice versa for Tray 1 and Tray 2. Empty notice is displayed in the operation panel of the DRYPRO 832.
		OFF	Empty notice to the input device is made even when there is film of the same size and type in Tray 2 (Lispl-832), when the film runs out in Tray 1 (supply tray). Same operation is executed when the film count is vice versa for Tray 1 and Tray 2.
7	[SAVE] button	Save the changes and close the "FILM SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	
8	[BACK] button	Discard the changes and close the "FILM SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	

Caution

Settings can be changed under the following conditions.

- For a supply tray with [TRAY USE] set to [OFF]:
  - Film size, film type, number of sheets of film, and number of sheets of package cannot be changed.
- If an unprocessed job remains in DRYPRO 832:
  - No change can be made to any setting.

> **Caution**
> If Lispl-832 is used, the [TRAY USE] setting must be changed.
> Change settings after adding Lispl-832 to DRYPRO 832.
> If settings are changed first, an error may occur.

> **Note**
> If the value entered is incorrect, the following message appears.
> - The input range is not correct.
>
> Enter the correct value again.

3 Set each item according to the status of use in the facility.

4 Click the [SAVE] button.

Save the changes and close the “FILM SETUP” window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

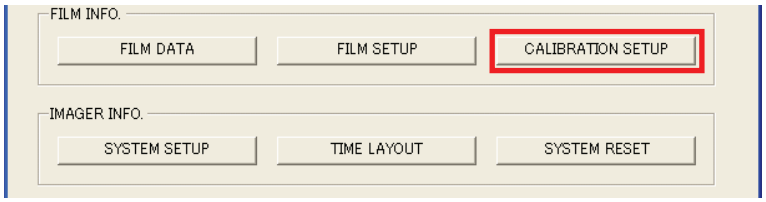
15.10 Calibration Setup

Set the method for performing automatic density calibration and the calibration timing.

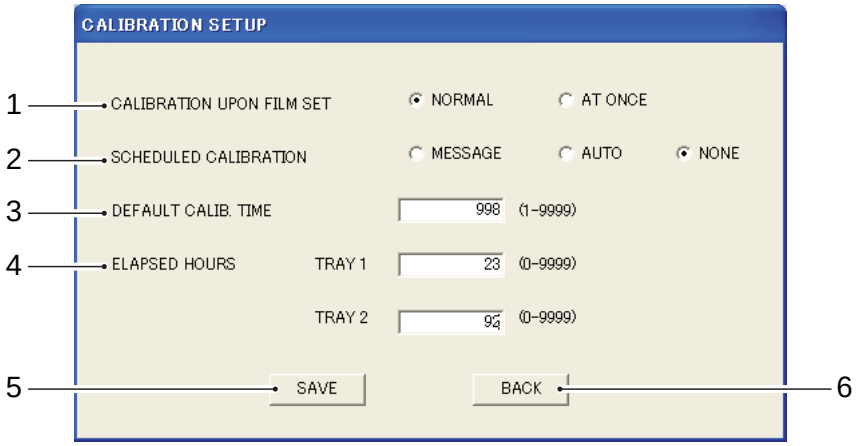
1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [CALIBRATION SETUP] button under "FILM INFO".

The "CALIBRATION SETUP" window appears.



"CALIBRATION SETUP" window



The "CALIBRATION SETUP" window contains the following items:

No.	Setup Items	Description of Settings	
1	CALIBRATION UPON FILM SET	Set the time at which calibration is performed after loading film. Initial Setting: NORMAL	
		NORMAL	Calibration is performed after registering the first queue.
		AT ONCE	Calibration is performed immediately after loading film.
2	SCHEDULED CALIBRATION	Set the method for automatically correcting density after a given period of time. Initial Setting: NONE	
		MESSAGE	A message prompting to perform calibration after a given period of time is displayed.
		AUTO	Calibration is automatically performed after a given period of time.
		NONE	Periodic calibration is not performed.
3	DEFAULT CALIB. TIME	Set the time intervals at which automatic calibration is carried out. Initial Setting: 2160 Setting range: 1-9999	
4	ELAPSED HOURS	Displays the elapsed time since last calibration. Setting range: 0-9999	
5	[SAVE] Button	Save the changes and close the "CALIBRATION SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	
6	[BACK] Button	Discard the changes and close the "CALIBRATION SETUP" window to return to DRYPRO 832 Utility Tool Maintenance Menu window.	

3 Set a constant value as necessary.

4 Click the [SAVE] button.

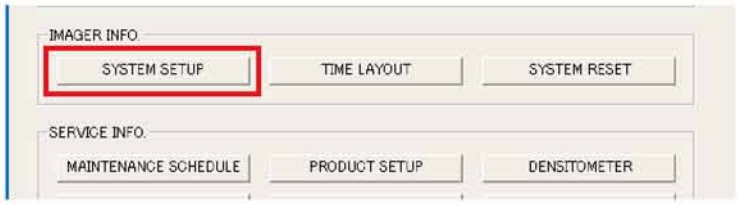
Save the changes and close the “CALIBRATION SETUP” window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

15.11 System Setup

Perform setup for the operation of the internal system of DRYPRO 832.

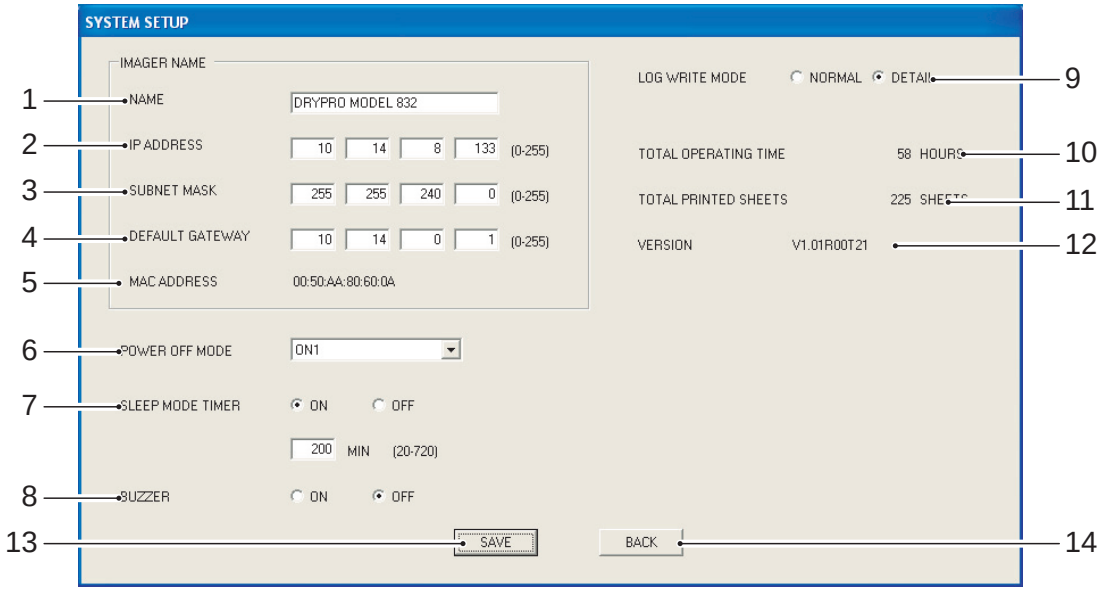
1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [SYSTEM SETUP] button under "IMAGER INFO".



The "SYSTEM SETUP" window appears.

"SYSTEM SETUP" window



The "SYSTEM SETUP" window contains the following items:

No.	Setup Items	Description of Settings
1	NAME	Set the name of DRYPRO 832. When connecting two DRYPRO 832 units, do not set the same name. Number of characters that can be set: within 16 one-byte alphanumeric characters Default value: DRYPRO MODEL 832
2	IP ADDRESS	Set the IP address of DRYPRO 832. Default value: 192.168.20.161
3	SUBNET MASK	Set the subnet mask of DRYPRO 832. Default value: 255.255.255.0
4	DEFAULT GATEWAY	Set the default gateway of DRYPRO 832. Default value: 192.168.0.1
5	MAC ADDRESS	The MAC address of DRYPRO 832 appears.

No.	Setup Items	Description of Settings	
6	POWER OFF MODE	Set the power OFF mode interfaced with Printlink5-IN. Default value: OFF	
		OFF	The power OFF mode is not used.
		ON (with temperature control)	The power OFF mode is used. (Since the temperature inside the main unit is maintained even after power is turned OFF, the warm-up period during the start-up process will be approximately 3 minutes.)
		ON (without temperature control)	The power OFF mode is used. (Since the temperature control inside the main unit is not performed after power is turned OFF, the warm-up period during the start-up process will be approximately 10 minutes.)
		For more information, see "■ About Power OFF Mode (Page 15-27)".	
7	SLEEP MODE TIMER	Set the sleep mode timer to ON/OFF when the DRYPRO 832 is not used, and set the period of time before shifting into sleep mode. Default value: OFF	
		ON	The sleep mode timer function is used.
		OFF	The sleep mode timer function is not used.
		sec	Enter the period of time before shifting into sleep mode. This value can only be set when the sleep mode timer function is "ON". Default value: 120 min
8	BUZZER	Set the operation unit buzzer sound ON/OFF when an error or empty occurs in DRYPRO 832. Default value: ON	
		ON	The operation unit buzzer sounds for approximately 1 second.
		OFF	The operation unit buzzer does not sound.
9	LOG WRITE MODE	Set the log output status. Default value: NORMAL	
		NORMAL	Output in normal mode.
		DETAIL	Output in detail mode.
10	TOTAL OPERATING TIME (Display only)	The total operating time of DRYPRO 832 is shown. Default value: 0	
11	TOTAL PRINTED SHEETS (Display only)	The total number of sheets output to DRYPRO 832 is shown. The total number of printed sheets includes the number of sheets of film output during calibration performed when the machine was installed. Default value: 0	
12	VERSION (Display only)	The currently active software version is displayed. When the software is upgraded, confirm using this value. Default value: Varies depending on shipment time.	
13	[SAVE] button	Save the changes and close the "SYSTEM SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	
14	[BACK] button	Discard the changes and close the "SYSTEM SETUP" window to return to DRYPRO 832 Utility Tool Maintenance Menu window.	

3 Set each item according to the status of use in the facility.

4 Click the [SAVE] button.

Save the changes and close the "SYSTEM SETUP" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

If the network settings of "IMAGER NAME" were changed, restart the DRYPRO 832.

Note

Clicking the [BACK] button while changing the settings (including the case of resetting the settings changed once) displays a window to confirm whether or not to save the settings.

[Yes] button: Clicking this button saves the changed settings and returns to the main window.

[No] button: Clicking this button returns to the main window without saving the changed settings.

■ About Power OFF Mode

When the power OFF mode is enabled (ON), DRYPRO 832 runs as shown below by operating Printlink5-IN.

- When Printlink5-IN is shut down, DRYPRO 832 interfaced with Printlink5-IN also shuts down.
- When Printlink5-IN is started, DRYPRO 832 which is interfaced with Printlink5-IN also starts up.

Caution

Even if the power OFF mode is set to “ON”, the power OFF mode will not operate immediately after shutting down Windows without selecting [Shutdown] from [Operation] menu in the Printlink5-IN main window. In this case, DRYPRO 832 will be shutdown in about 10 minutes after Printlink5-IN has been powered OFF.

15.12 Time Layout

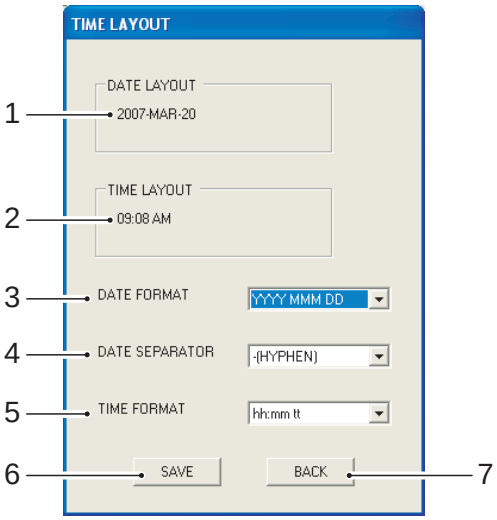
Set the date/time layout of the stamp to be printed on a film.

1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [TIME LAYOUT] button under "IMAGER INFO.".

The "TIME LAYOUT" window appears.

"TIME LAYOUT" window



The "TIME LAYOUT" window contains the following items:

No.	Setup Items	Description of Settings	
1	DATE LAYOUT (Display only)	The date format set under "DATE FORMAT" in No.3 and the date layout set in "DATE SEPARATOR" of No.4 appear.	
2	TIME LAYOUT (Display only)	The time layout set under "TIME FORMAT" below appears.	
3	DATE FORMAT	Select and set the date display format from the pulldown. This setting takes effect in the display of the DRYPRO 832 main unit and in the film stamp characters. Default value: YYYY-MMM-DD The following formats can be selected:	
		YYYY MM DD	Year + Month + Day (Month is written in numeric characters.)
		MM DD YYYY	Month + Day + Year (Month is written in numeric characters.)
		DD MM YYYY	Day + Month + Year (Month is written in numeric characters.)
		YYYY MMM DD	Year + Month + Day (Month is written in alphabetic characters)
		MMM DD YYYY	Month + Day + Year (Month is written in alphabetic characters.)
		DD MMM YYYY	Day + Month + Year (Month is written in alphabetic characters.)
		For information about month notation, see "■ Month Notation (Page 15-29)".	

No.	Setup Items	Description of Settings	
4	DATE SEPARATOR	Select and set the date separator from the pulldown. This setting takes effect in the display of the DRYPRO 832 main unit and in the film stamp characters. Default value: － （HYPHEN） The following separators can be selected.	
		“/”: Slash	Example: 2006/01/01
		“-”: Hyphen	Example: 2006-01-01
		“.”: Period	Example: 2006.01.01
		“ ”: Space	Example: 2006 01 01
5	TIME FORMAT	Select and set the time display format from the pulldown. This setting takes effect in the display of the DRYPRO 832 and in the film stamp characters. Default value: hh: mm The following formats can be selected:	
		hh: mm	Hour + Minute (24-hour notation)
		tt hh: mm	AM/PM +Hour + Minute (12-hour notation)
		hh: mm tt	Hour + Minute + AM/PM (12-hour notation)
6	[SAVE] Button	Save the changes and close the “TIME LAYOUT” window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	
7	[BACK] Button	Discard the changes and close the “TIME LAYOUT” window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.	

3 Set each item according to the status of use in the facility.

4 Click the [SAVE] button.

Save the changes and close the “TIME LAYOUT” window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

■ Month Notation

The month notation set in the date format is shown below.

Notation	January	February	March	April	May	June
Numeric notation (MM)	01	02	03	04	05	06
Alphabetic notation (MMM)	JAN	FEB	MAR	APR	MAY	JUN

Notation	July	August	September	October	November	December
Numeric notation (MM)	07	08	09	10	11	12
Alphabetic notation (MMM)	JUL	AUG	SEP	OCT	NOV	DEC

15.13 System Reset

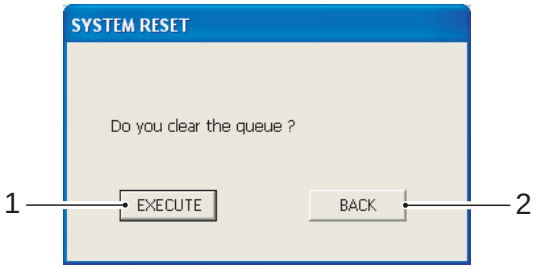
Deletes all jobs in the DRYPRO 832.

1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [SYSTEM RESET] button under “IMAGER INFO”.

The “SYSTEM RESET” window appears.

“SYSTEM RESET” window



The “SYSTEM RESET” window contains the following items.

No.	Setup Items	Description of Settings
1	[EXECUTE] Button	All jobs will be deleted.
2	[BACK] Button	The “SYSTEM RESET” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

3 Click the [EXECUTE] button.

All of the jobs will be deleted, the “SYSTEM RESET” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

15.14 Maintenance Schedule

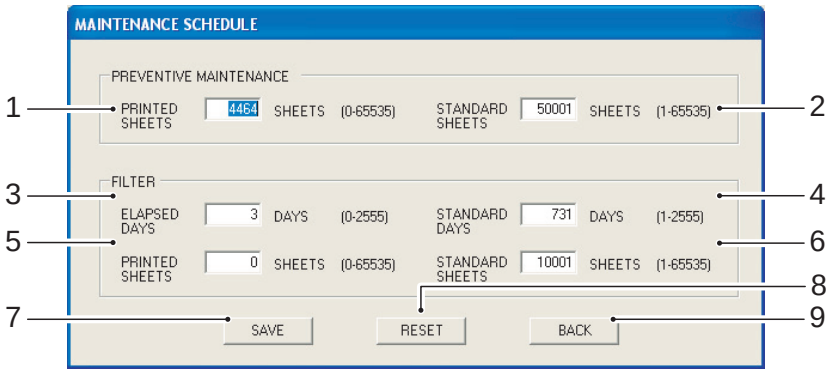
This section provides information about how to initialize the periodic inspection schedule of DRYPRO 832.

1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [MAINTENANCE SCHEDULE] button under "SERVICE INFO".

The "MAINTENANCE SCHEDULE" window appears.

"MAINTENANCE SCHEDULE" window



The "MAINTENANCE SCHEDULE" window contains the following items:

No.	Setup Items	Description of Settings
PREVENTIVE MAINTENANCE		
1	PRINTED SHEETS	The number of sheets of film printed to date since the last periodic inspection is displayed. Default value: 0
2	STANDARD SHEETS	The standard number of printed sheets of film before the next periodic inspection is displayed. Default value: 50000
FILTER		
3	ELAPSED DAYS	The number of days elapsed since the date of last periodic inspection on which the filter was changed. Default value: 0
4	STANDARD DAYS	The standard number of days that has elapsed will be displayed, based on when the filter will be changed next. Default value: 730
5	PRINTED SHEETS	The number of sheets of film printed since the date of the last periodic inspection when the filter was changed will be displayed. Default value: 0
6	STANDARD SHEETS	The number of films output will be displayed as the basis for the next filter change. Default value: 10000
7	[SAVE] button	Save the changes and close the "MAINTENANCE SCHEDULE" window to return to DRYPRO 832 Utility Tool Maintenance Menu window.
8	[RESET] button	All information about the elapse of the time is reset.
9	[BACK] button	Discard the changes and close the "MAINTENANCE SCHEDULE" window to return to the DRYPRO 832 Utility Tool Maintenance Menu window.

3 Click the [RESET] button.

All information about the elapse of the time is reset.

4 Click the [SAVE] button.

Save the changes and close the “MAINTENANCE SCHEDULE” window to return to DRYPRO 832 Utility Tool Maintenance Menu window.

15.15 HPRO Setup

Check or change the constants for controlling the heat process unit.

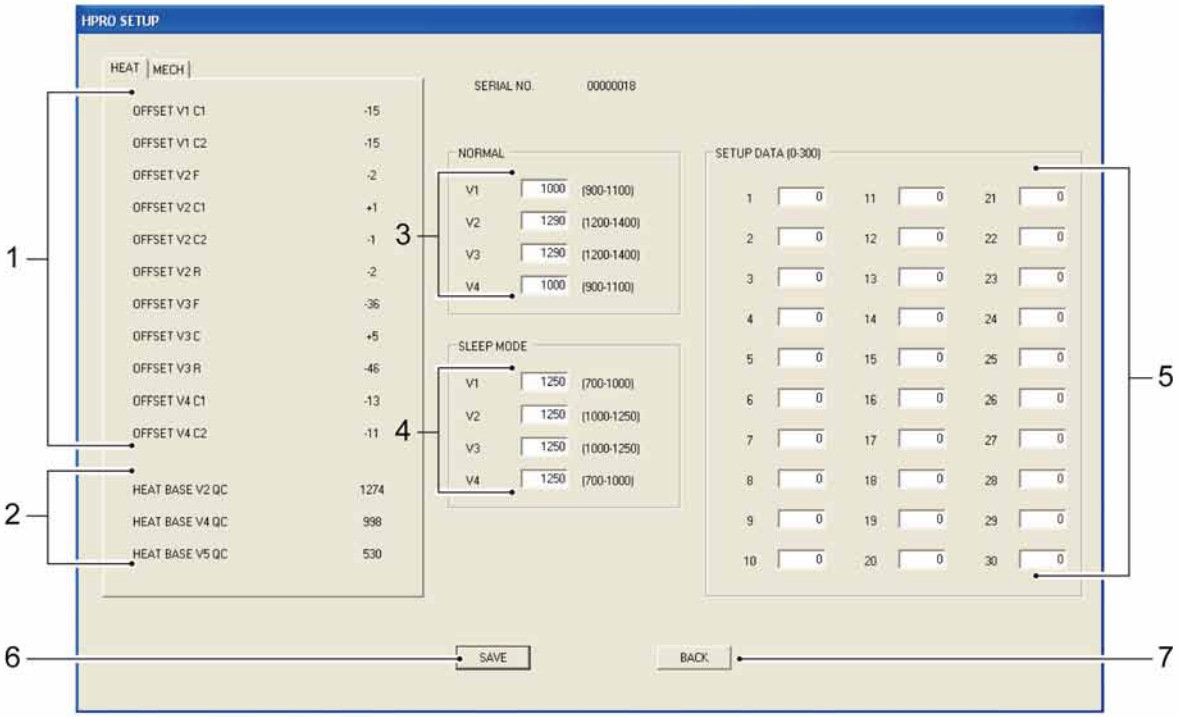
> **Caution** Each constant for HPRO setup is set to an optimum value at the factory. Do not change unless otherwise instructed.

1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [HPRO SETUP] button under "SERVICE INFO".

The "HPRO SETUP" window appears.

"HPRO SETUP" window - "HPRO" tab

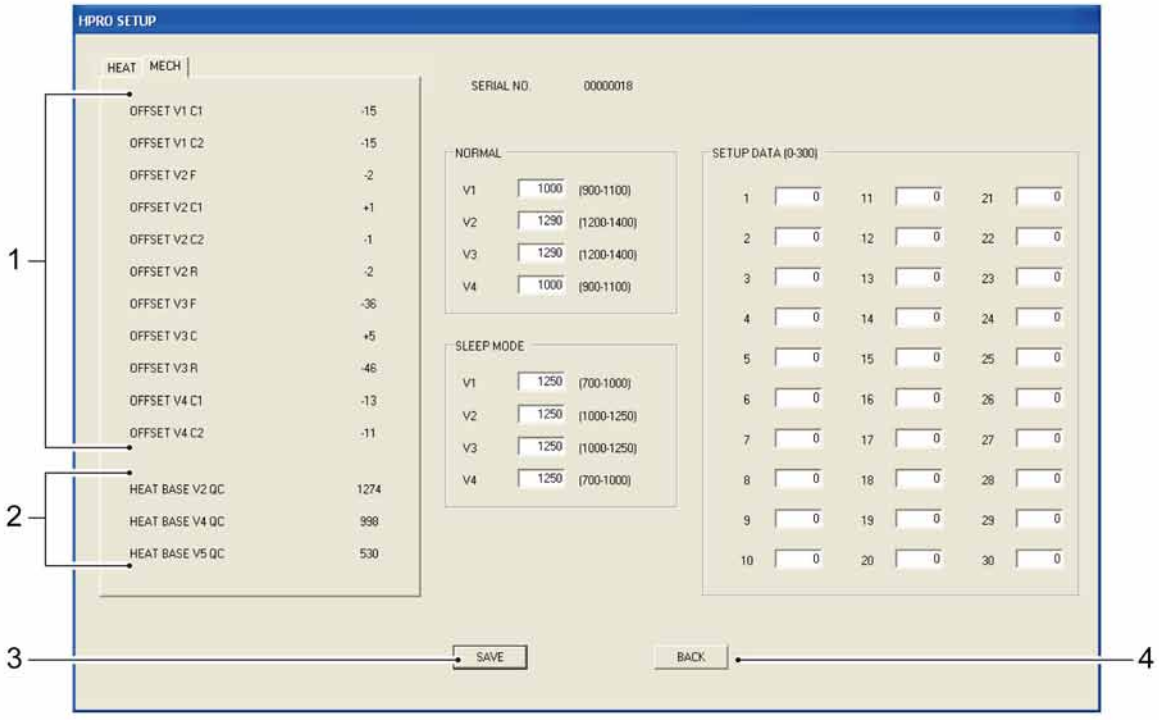


The "HPRO" tab in the "HPRO SETUP" window contains the following items.

No.	Setup Items	Description of Settings
1	OFFSET (V1-V4)	The offset value for each item of the heat process temperature control is displayed. Display range: -250 - 250
2	HEAT BASE (V2, V4, V5 QC)	The temperature measured from each section of the heat process guide is displayed.

No.	Setup Items	Description of Settings	
3	NORMAL (V1-V4)	The set temperature of the heat process guide (V1-V4) under normal conditions is displayed. Display range: 900-1400（0.1 ℃ units）	
		Default: V1	1000（900 - 1100）
		Default: V2	1265（1200- 1400）
		Default: V3	1265（1200 - 1400）
		Default: V4	1000（900 - 1100）
4	SLEEP MODE (V1-V4)	The set temperature of the heat process guide (V1-V4) in sleep mode is displayed. Display range: 1200-1300（0.1 ℃ units）	
		Default: V1	750（700 - 1100）
		Default: V2	1250（1000 - 1250）
		Default: V3	1250（1000 - 1250）
		Default: V4	850（700 - 1000）
5	SETUP DATA	The parameter used for density correction control is displayed. Display range: 0-300	
6	[SAVE] button	Save the changes and close the “HPRO SETUP” to return to DRYPRO 832 Utility Tool Maintenance Menu window.	
7	[BACK] button	Discard the changes and close the “HPRO SETUP” to return to DRYPRO 832 Utility Tool Maintenance Menu window.	

“HPRO SETUP” window - “MEC” tab



The “MEC” tab in the “HPRO SETUP” window contains the following items.

No.	Setup Items	Description of Settings
1	OFFSET (V1-V4)	The offset value for each item of the heat process temperature control is displayed. Display range: -250 - 250

No.	Setup Items	Description of Settings
2	HEAT BASE (V2, V4, V5 QC)	The temperature measured from each section of the heat process guide is displayed.
3	[SAVE] button	Save the changes and close the “HPRO SETUP” to return to DRYPRO 832 Utility Tool Maintenance Menu window.
4	[BACK] button	Discard the changes and close the “HPRO SETUP” to return to DRYPRO 832 Utility Tool Maintenance Menu window.

3 Set each item as necessary.

4 Click the [SAVE] button.

Save the changes and close the “HPRO SETUP” to return to DRYPRO 832 Utility Tool Maintenance Menu window.

15.16 MEC Setup

Checking or changing the settings can be done by mechanical control.

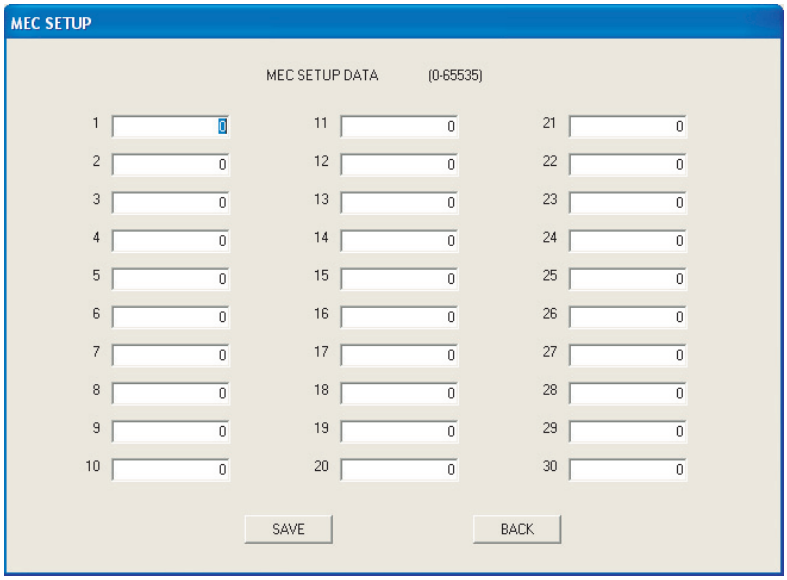
> **Caution**
> This function is currently not used.
> In the future, it may be used when the software is upgraded.
> Do not change unless instructed to do so.

1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [MEC SETUP] button under “SERVICE INFO”.

The “MEC SETUP” window appears.

“MEC SETUP” window



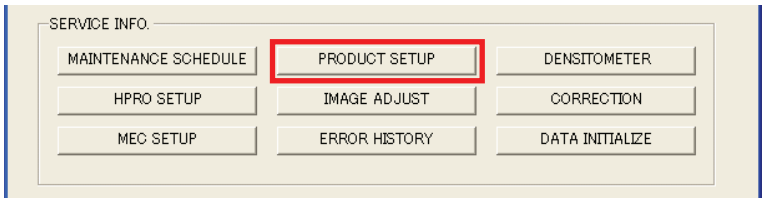
15.17 Product Setup

The constants can be checked or changed to control each hardware.

> **Caution** Each constant for product setup is set to an optimum value at the factory. Do not change unless otherwise instructed.

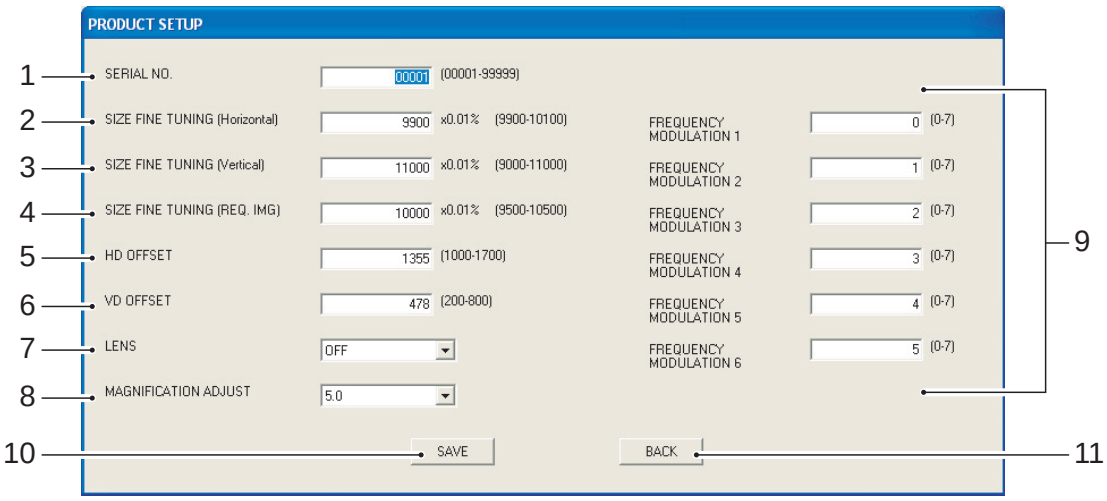
1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [PRODUCT SETUP] button under "SERVICE INFO".



The "PRODUCT SETUP" window appears.

"PRODUCT SETUP" window



The "PRODUCT SETUP" window contains the following items.

No.	Setup Items	Description of Settings
1	SERIAL NO.	Displays the serial number of each DRYPRO 832.
2	SIZE FINE TUNING(Horizontal)	Set the adjusted value of the image size in the H direction. Setting range: 9900-10100
3	SIZE FINE TUNING (Vertical)	Set the adjusted value of the image size in the V direction. Setting range: 9000-11000
4	SIZE FINE TUNING (REQ. IMG)	Set when the accuracy using an input device to specify the requested image size (Requested image size specification) results is insufficient. Setting range: 9500 to 10500 Ex.) Even though the horizontal size was specified as 300 mm using an input device, the imager outputs an image with a horizontal size of 303 mm. • Set "SIZE FINE TUNING (REQ. IMG)" to 99% (setting: "9900").
5	HD OFFSET	Set the adjusted value of Main Scan OFFSET image writing position. Setting range: 1000-1700
6	VD OFFSET	Set the adjusted value of Sub Scan OFFSET image writing position. Setting range: 200-800

No.	Setup Items	Description of Settings
7	LENS	Set a combination of lenses with reference to the exposure unit. Setting range: OFF, 1 - 4
8	MAGNIFICATION ADJUST	Set the adjusted value of the image size in the H direction with reference to the spacer size. Setting range: 0.0-5.0
9	FREQUENCY MODULATION 1-6	Set the frequency modulation parameters (01- 06) Setting range: 0-7
10	[SAVE] Button	Save the changes and close the “PRODUCT SET UP” to return to DRYPRO 832 Utility Tool Maintenance Menu window.
11	[BACK] Button	Discard the changes and close the “PRODUCT SET UP” window to return to DRYPRO 832 Utility Tool Maintenance Menu window.

3 Set each item as necessary.

4 Click the [SAVE] button.

Save the changes and close the “PRODUCT SETUP” to return to DRYPRO 832 Utility Tool Maintenance Menu window.

15.18 Image Adjust

Set the constant for adjusting the image quality.

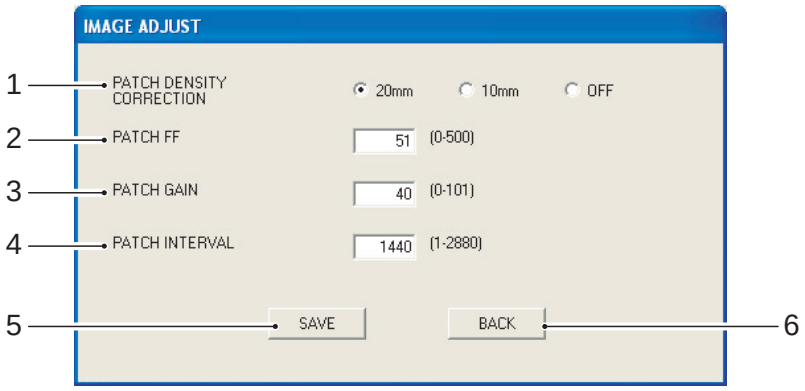
> **Caution** Each constant for image adjustment is set to an optimum value at the factory. Do not change unless otherwise instructed.

1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [IMAGE ADJUST] button under "SERVICE INFO".

The "IMAGE ADJUST" window appears.

"IMAGE ADJUST" window



The "IMAGE ADJUST" window contains the following items.

No.	Setup Items	Description of Settings	
1	PATCH DENSITY CORRECTION	Specify whether or not to control density using the density patch. Initial Setting: 20mm	
		20 mm	Density control using a 20 mm density patch is performed.
		10 mm	Perform density control using a 10 mm density patch.
		OFF	Density control is not performed.
2	PATCH FF	Set a parameter (PATCH FF) for controlling the patch. Initial Setting: 50 Setting range: 0-500	
3	PATCH GAIN	Set a parameter (PATCH GAIN) for controlling the patch. Initial Setting: 40 Setting range: 0-101	
4	PATCH INTERVAL	Set a parameter (PATCH INTERVAL) for controlling the patch. Initial Setting: 1440 Setting range: 1-2880	
5	[SAVE] button	Save the changes and close the "IMAGE ADJUST" window to return to DRYPRO 832 Utility Tool Maintenance Menu window.	
6	[BACK] button	Discard the changes and close the "IMAGE ADJUST" window to return to DRYPRO 832 Utility Tool Maintenance Menu window.	

3 Set a constant value as necessary.

4 Click the [SAVE] button.

Save the changes and close the “IMAGE ADJUST” window to return to DRYPRO 832 Utility Tool Maintenance Menu window.

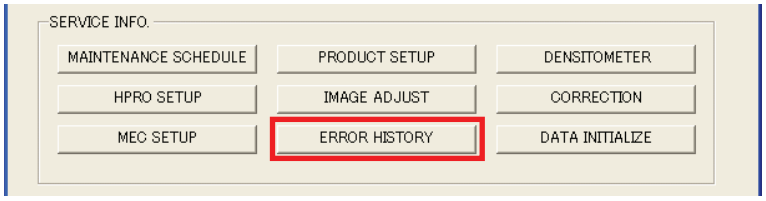
15.19 Error History

A history of the errors that have occurred in DRYPRO 832 and PC is displayed.

Error history of a maximum of 20 occurrences can be displayed.

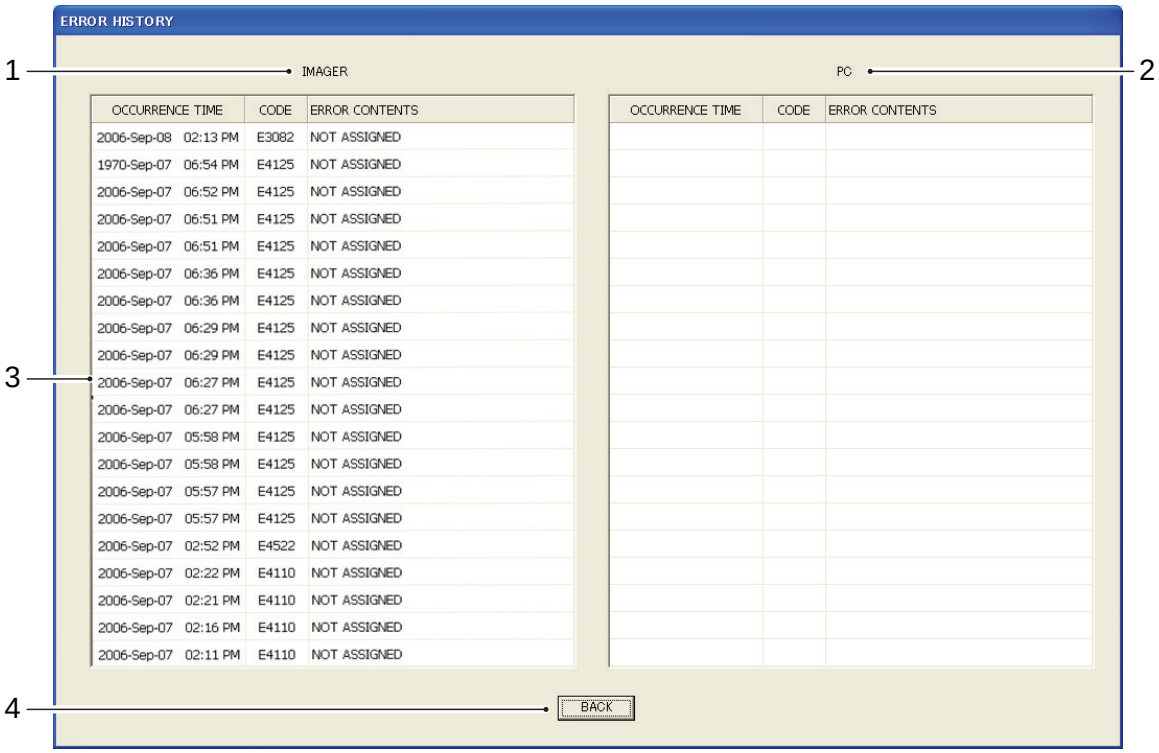
1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [ERROR HISTORY] button under “SERVICE INFO.”.



The “ERROR HISTORY” window appears.

“ERROR HISTORY” window



The “ERROR HISTORY” window contains the following items.

No.	Setup Items	Description of Settings
1	DRYPRO 832 main unit	A history of the errors that have occurred in DRYPRO 832 is displayed.
2	Server PC	A history of the errors that have occurred in the server PC is displayed.
3	ERROR HISTORY display field	The time that an error occurred, error code displayed on the operation unit, and error message displayed on the operation unit will appear.
4	[BACK] button	Close the “ERROR HISTORY” window to return to the Maintenance Menu window.

3 Click the [BACK] button.

The “ERROR HISTORY” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

15.20 Densitometer

Caution

- "DENSITOMETER" is a function which is different from the "Density Correction" (performed when printing calibration patterns). Take care not to confuse the two.
- Since the densitometer of DRYPRO 832 is factory-calibrated using the calibrated external densitometer, it can be used as is without adjusting the density especially after its installation. However, if you wish to adjust the film density to the external densitometer possessed by the facility, perform the densitometer calibration procedure once using the external densitometer.
- When calibrating the densitometer, it should be noted that the density correction data at the time of installing DRYPRO 832 cannot be restored after performing the densitometer calibration procedure even once.

Caution

Recommended conditions for external densitometer

Use the calibrated densitometer of any one of the following models.

If densitometer calibration is performed using a model of densitometer other than the following or one that is not calibrated, the accuracy of density cannot be guaranteed.

- TM-5 (manufactured by Ihara Electronic Industry)
- X-Rite301 (manufactured by X-Rite)
- X-Rite361 (manufactured by X-Rite)
- X-Rite331 (manufactured by X-Rite)

15.20.1 Built-in Densitometer Calibration

Note

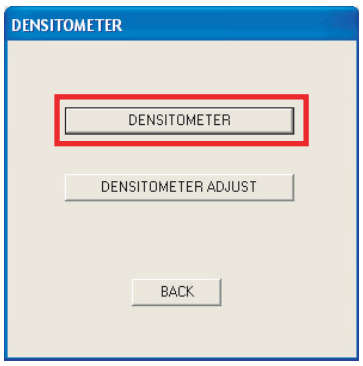
The built-in densitometer calibration is performed when there is a density problem when the image quality is confirmed using the QC pattern. Refer to the setup manual about confirming the image quality of a QC pattern.

1 Refer to "15.1 DRYPRO 832 Utility Tool Start (Page 15-2)", and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [DENSITOMETER] button under "SERVICE INFO."

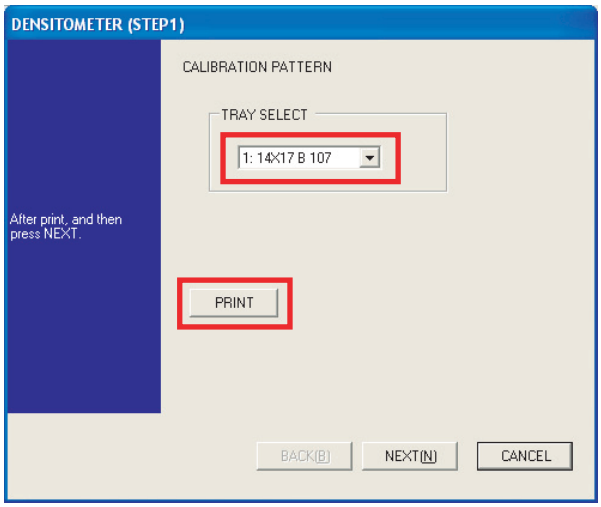
The "DENSITOMETER" window appears.

3 Click the [DENSITOMETER] button.



The "DENSITOMETER (STEP1)" window appears.

4 Choose the tray for which you want to perform densitometer calibration, and then click the [PRINT] button.



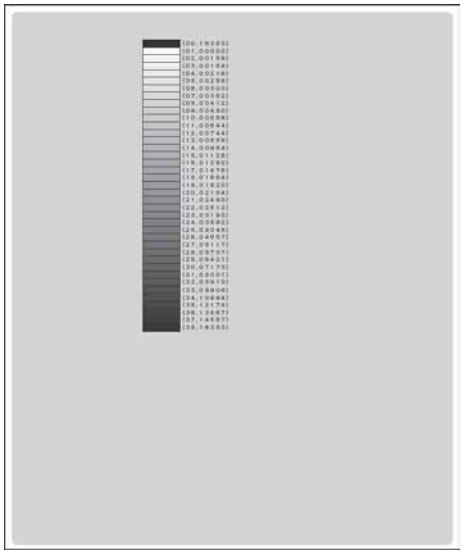
Precautions when the optional Lispl-832 is installed:

- If the same film type is used for Tray 1 and Tray 2, by performing the densitometer calibration once and specifying one tray, calibration is performed for the other tray as well. If different sizes are used, select the tray into which larger film is loaded.
- If the film type in Tray 1 and Tray 2 are different, select the tray according to the following table.

Combination of film types		Target tray for densitometer calibration
BLUE film	CLEAR film	Tray into which BLUE film is loaded
BLUE film	HIGH BLUE film	Tray into which BLUE film and HIGH BLUE film are loaded (*)
CLEAR film	HIGH BLUE film	Tray into which CLEAR film and HIGH BLUE film are loaded (*)

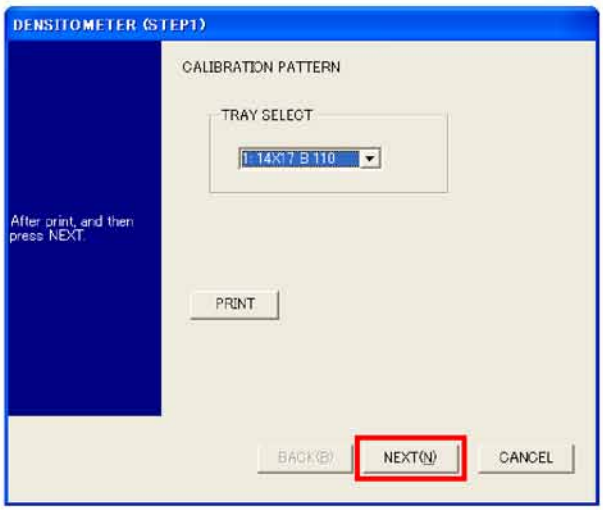
(*) Perform density calibration for each tray.

Example: Calibration pattern



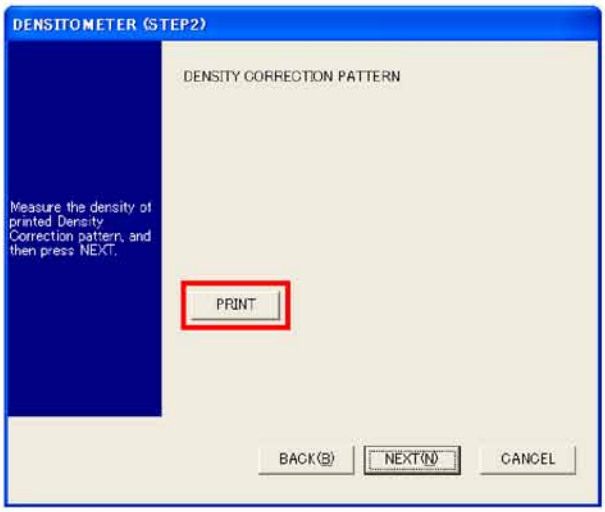
One sheet of calibration pattern is printed.

5 Click the [Next(N)] button.



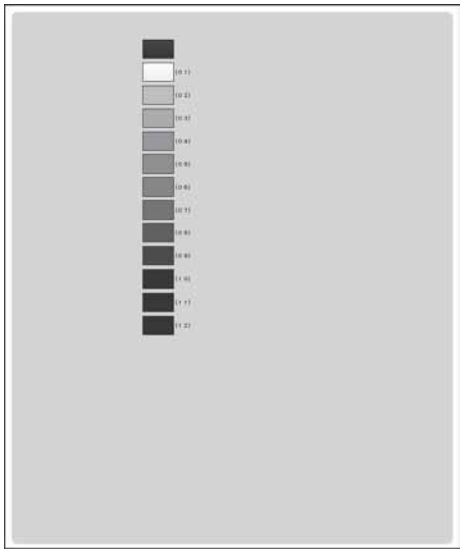
The “DENSITOMETER (STEP2)” window appears.

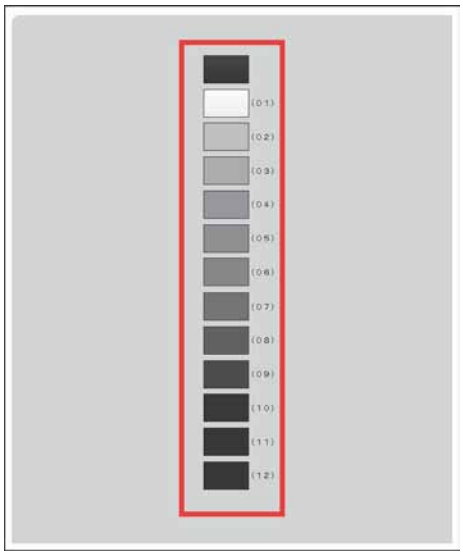
6 Click the [PRINT] button.



One sheet of calibration pattern is printed.

Example: Densitometer calibration pattern



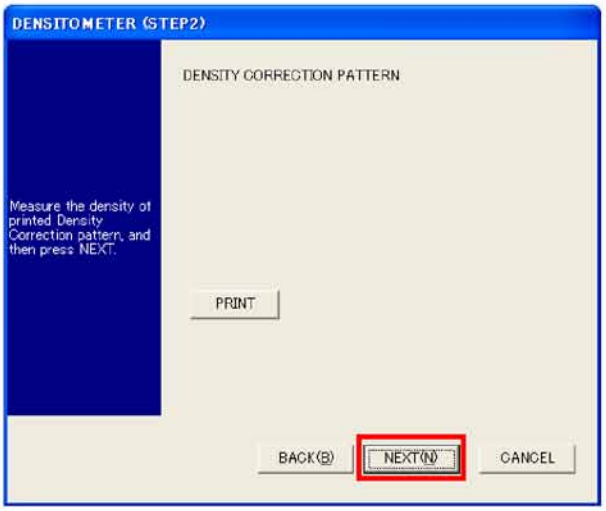


7 Measure the density of the printed densitometer calibration patterns (01) - (12), using an external densitometer.

> **Caution** When measuring the film density, make sure to standardize the measuring surface of film (front/back side).
>
> If the measuring surface is not standardized, the results of measuring the film density may vary, depending on the model of the densitometer.

> **Note** For details of how to measure the density, see the instruction manual that comes with the densitometer.

8 Click the [Next(N)] button.



The “DENSITOMETER(STEP3)” window appears.

9 Enter a value equals to the density measured in Step 7, which was increased by 100-fold, in one-byte numbers in [01] - [12] in the “DENSITOMETER (STEP3)” window,

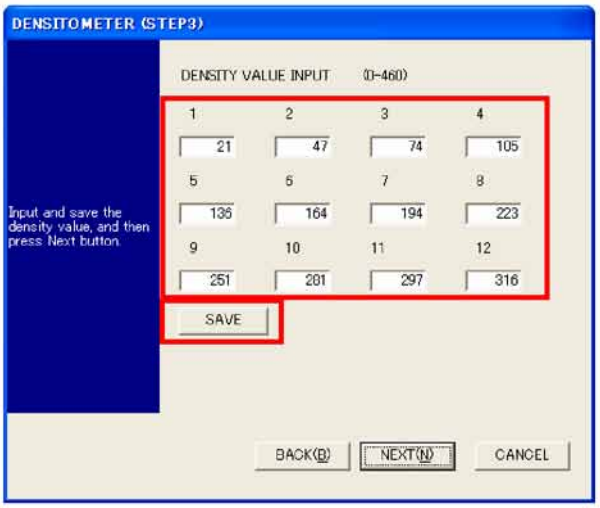
Example:

- If the (01)st density value is 0.21, enter “21” in the 01 field.
- If the (12)th density value is 3.16, enter “316” in the 12 field.

> **Caution** Entering and saving an abnormal or incorrect value can cause density correction data corruption, making it impossible to perform density correction properly. Take care not to enter an abnormal or incorrect value.
>
> - Example of abnormal or incorrect values
> - Values deviating greatly from the measured value
> - The density value was 1.25, but “215” was entered by mistake.
> - The density value was 1.25, but an abnormal value of “400” was intentionally entered.

10 Click the [SAVE] button.

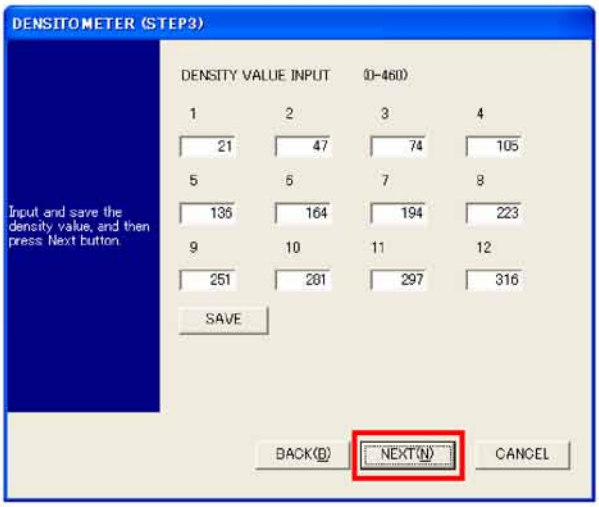
The settings will be saved.



Caution

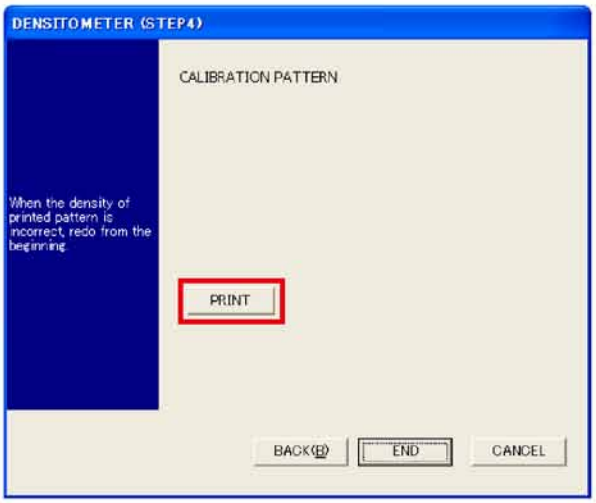
- After entering the density value, make sure to click the [SAVE] button to save the settings. If the settings are not saved, proper densitometer calibration procedure may not be performed.
- When clicking the [SAVE] button, the entered density value may be misjudged as being abnormal or incorrect value and an error may be displayed. In such a case, perform either of the following:
  - Check the density value and reenter a correct value.（From Step 9）
  - Redo the densitometer calibration procedure from the beginning.（From Step 2）

11 Click the [Next(N)] button.

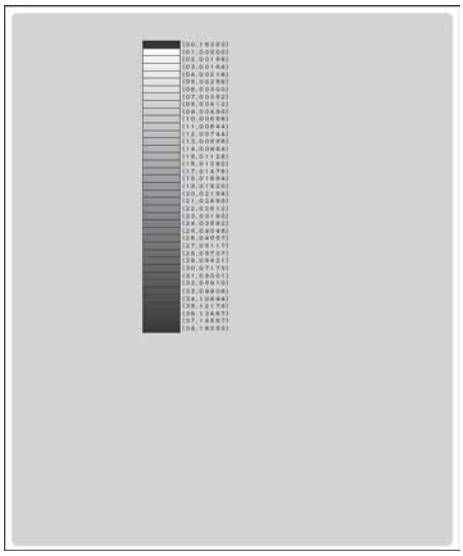


The “DENSITOMETER (STEP4)” window appears.

12 Click the [PRINT] button.

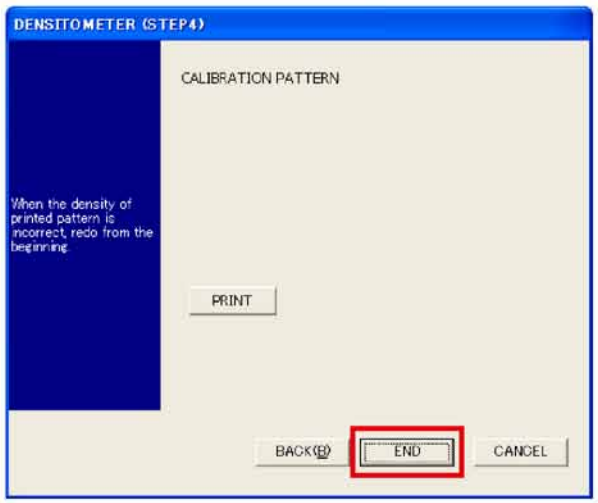


Example: Calibration pattern



One sheet of calibration pattern is printed.

13 Click the [END] button.



The “DENSITOMETER (STEP4)” window will close, returning to the “Maintenance Menu” screen.

14 If Lispl-832 is installed, perform calibration on another tray.

Note

- If the tray selected in Step 4 comes first, perform calibration on Tray 2.
- If the tray selected in Step 4 comes second, perform calibration on Tray 1.

This completes the process of calibrating the densitometer.

Continue to "15.20.2 Confirming After Density Calibration (Page 15-49)" and confirm after the density has been calibrated.

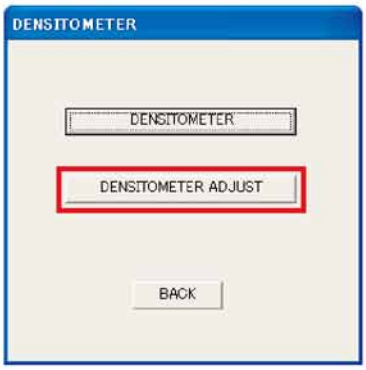
15.20.2 Confirming After Density Calibration

Check the set density value by comparing the reading given by the densitometer built into DRYPRO 832 with the measured value of the densitometer calibration pattern entered in the Densitometer Calibration window.

1 Click the [DENSITOMETER] button under “SERVICE INFO.”

The “DENSITOMETER” window appears.

2 Click the [DENSITOMETER ADJUST] button.



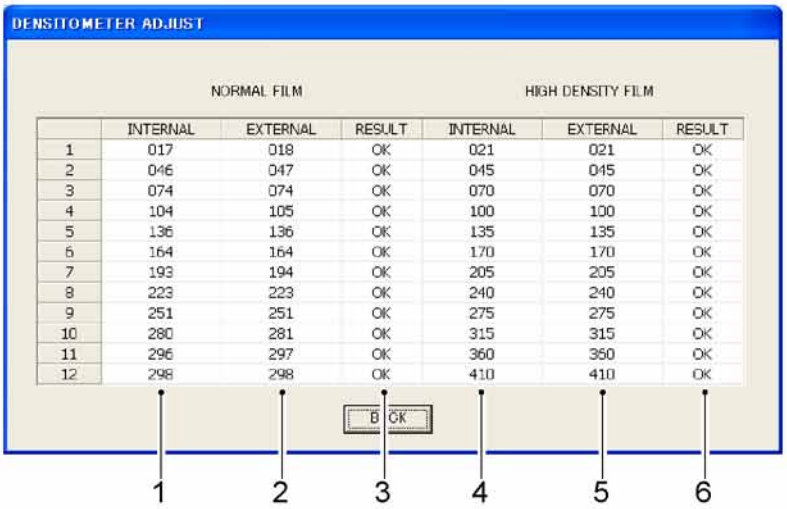
The “DENSITOMETER ADJUST” window appears.

3 Check the results by comparing the internal density values with the external density values from the (01)st to the (12)th.

If a correction was made to BLUE film or CLEAR film, check the results field on the “NORMAL FILM” side; or if a correction was made to HIGH BLUE film, check the results field on the “HIGH DENSITY FILM” side.

（If the difference in the (01)st to the (12)th values is within ±3, the result of correction is judged as being appropriate, and “OK” will be shown in the results column.

If the value difference is ±4 or greater, NG will be shown in the results column. Perform “15.20.1 Built-in Densitometer Calibration (Page 15-42)” again.



No.	Setup Items	Description of Settings	Description of Settings
1	NORMAL FILM	INTERNAL	The results of measuring with a built-in densitometer are shown, when a correction is made to BLUE film or CLEAR film.
2		EXTERNAL	The results of measuring with an external densitometer are shown, when a correction is made to BLUE film or CLEAR film.
3		RESULT	If the result of comparing the internal density value with the external density value is within ± 3, “OK” will be shown; or if it is ± 4 or greater, ”NG” will be shown.
4	HIGH DENSITY FILM	INTERNAL	The results of measuring with a built-in densitometer are shown, when a correction is made to HIGH BLUE film.
5		EXTERNAL	The results of measuring with an external densitometer are shown, when a correction is made to HIGH BLUE film.
6		RESULT	If the result of comparing the internal density value with the external density value is within ± 3, “OK” will be shown; or if it is ± 4 or greater, “NG” will be shown.

4 Click the [BACK] button.

The “DENSITOMETER ADJUST” window closes, returning to the Maintenance Menu window.

This completes the process of checking the set density value.

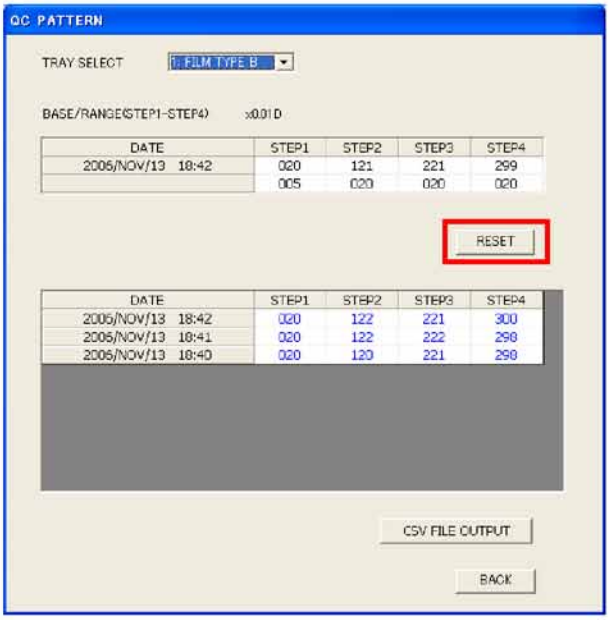
15.20.3 Creating QC PATTERN BASE

When the QC pattern is printed, the average of the first 3 readings of the built-in densitometer becomes the QC PATTERN BASE. As the printed QC PATTERN is always registered as the base value for image checking or density checking, the base value is created by printing 3 QC PATTERNS after resetting the base value.

1 Click the [QC PATTERN] button.

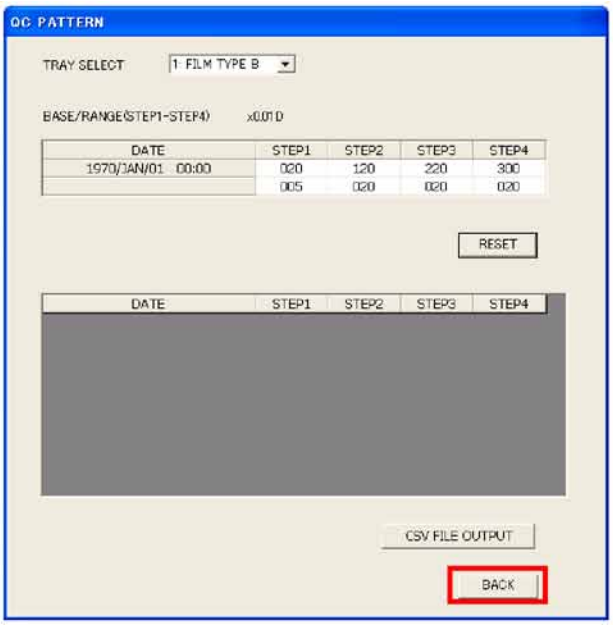
The “QC PATTERN” window appears.

2 Click the [RESET] button.



The base value for the previous QC PATTERN is reset.

3 Click the [BACK] button.



You will return to the “Maintenance Menu” window.

4 Click the [TEST PRINT] button in the “PRINT INFO.” section of the maintenance menu window of the DRYPRO 832 Utility tool.

The “TEST PRINT” window appears.

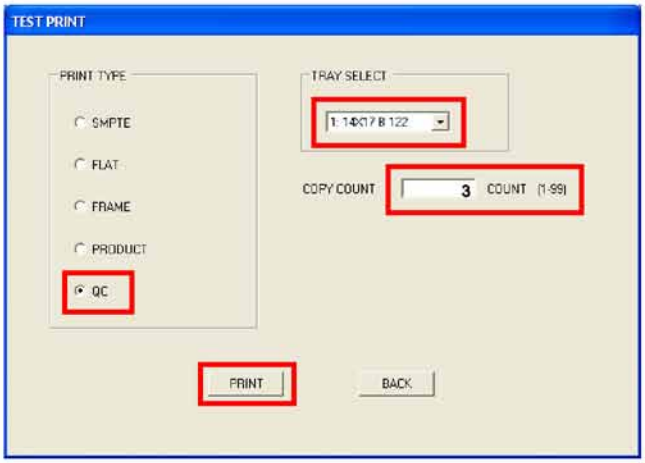
5 Set the “QC” radio button ON.

The “QC” pallet appears.

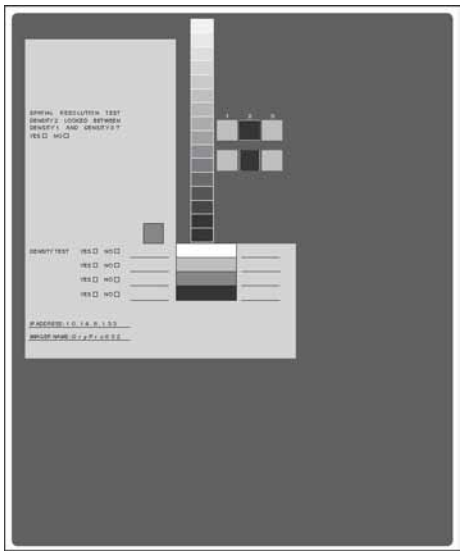
6 Select the tray to use to print the QC PATTERN from the “TRAY SELECT” pull-down list.

7 Enter “3” into the “COPY COUNT” entry field.

8 Click the [PRINT] button.



Example: QC PATTERN (14 x17 in.)

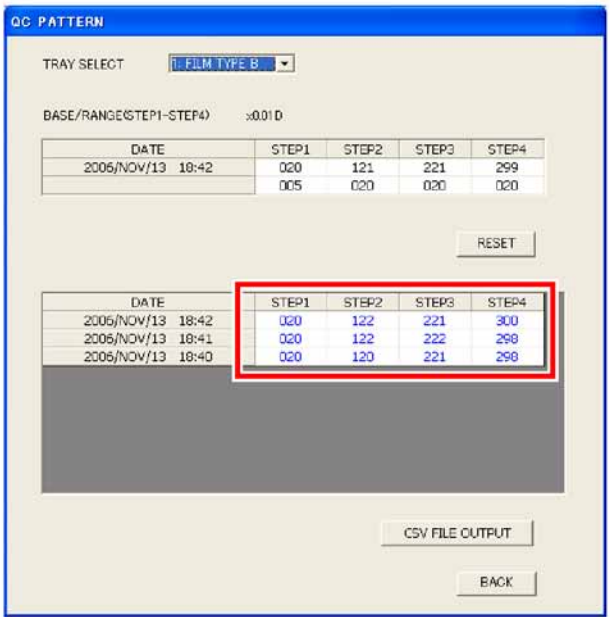


3 QC PATTERNS are printed from the selected tray.

9 Click the [QC PATTERN] button.

The “QC PATTERN” window is displayed.

10 Check that an appropriate density value (blue) is displayed in [STEP1] ~ [STEP4].



11 Click the [BACK] button.

You will return to the “Maintenance Menu” window. This is the end of the process of creating the QC PATTERN base value.

15.21 Data Initialize

Performing a DATA INITIALIZE operation resets the following data of DRYPRO 832 to their factory defaults.

- Job Data
- Film total
- Count
- Elapsed days
- Printed sheets
- QC Pattern results
- Error history

1 Refer to “15.1 DRYPRO 832 Utility Tool Start (Page 15-2)”, and open the maintenance menu window of the DRYPRO 832 Utility Tool.

2 Click the [DATA INITIALIZE] button under “SERVICE INFO”.

The “DATA INITIALIZE” window appears.

“DATA INITIALIZE” window

The “DATA INITIALIZE” window contains the following buttons.

No.	Setup Items	Description of Settings
1	[EXECUTE] button	Reset Film data, Maintenance schedule, System setup total uptime, System setup total output hours to their factory defaults.
2	[BACK] button	Close “DATA INITIALIZE” window to return to the Maintenance Menu window.

3 Click the [EXECUTE] button.

Data of each item will be reset to its factory default.

4 Click the [BACK] button.

The “DATA INITIALIZE” window closes, returning to the Maintenance Menu window of DRYPRO 832 Utility Tool.

Chapter 16 MainteTool

This chapter describes various maintenance using the service PC.

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16.2.1 Connecting Service PC 16-3
16.2.2 Setting up Network for Service PC 16-4
16.2.3 Sharing the Mainte_Tool Folder 16-6
16.3 How to Start the MainteTool 16-9
16.4 Upgrade Information 16-12
16.5 Backing up Setup 16-15
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16.5.3 Backing Up To MECH EEPROM 16-25
16.6 Restoring Settings 16-26
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16.6.2 Restore Method for V1.02 and Later 16-29
16.7 Collecting Logs 16-33
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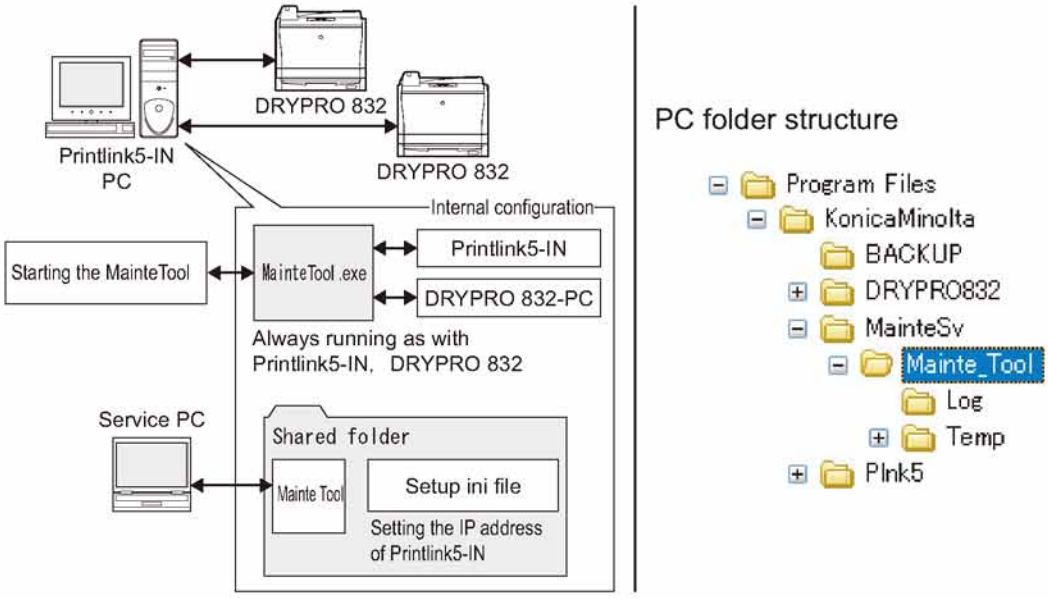
16.1 MainteTool Outline

Access the Printlink5-IN shared folder from the service PC connected to the facility's network and use the MainteTool in that shared folder to perform the various maintenance work.

Basic configuration



> **Caution** Use the Mainte_Tool folder shown in the diagram on the right above as a shared folder. The Mainte_Tool folder is not shared on the network by default, so the settings need to be changed. For more information, see "16.2.3 Sharing the Mainte_Tool Folder (Page 16-6)"

Use the MainteTool in the following cases:

When installing

- When backing up the setup data after installation
- When updating the application software version for DRYPRO 832 and Printlink5-IN (as necessary)
- When restoring DRYPRO 832 or Printlink5-IN settings data from a backup file that has been saved (as necessary)
- When gathering DRYPRO 832 or Printlink5-IN logs (as necessary)

When repairing

- When upgrading the DRYPRO 832 and Printlink5-IN application software
- When collecting logs in the event of an error
- When an error is detected in the image data
- When checking the condition of detection and operation after replacing a sensor or motor
- When the parts related to the exposure unit were replaced
- When loading setup data from a backup file

16.2 Setting up Network

Set up a network to allow the service PC and the facility's network to be connected each other.

■ Workflow

Set the items following the course shown below.

Item	Outline
Connecting Service PC	Connect the service PC to the facility's network via LAN cable. For more information, see "16.2.1 Connecting Service PC (Page 16-3)".
↓	
Setting up Network for Service PC	Set up the network to allow the service PC and the facility's network to be connected each other. For more information, see "16.2.2 Setting up Network for Service PC (Page 16-4)".
↓	
Sharing the Mainte_tool Folder	The Mainte_Tool folder is not shared on the network by default, so change the settings. For more information, see "16.2.3 Sharing the Mainte_Tool Folder (Page 16-6)".
↓	
Completion of network settings	

Requirements

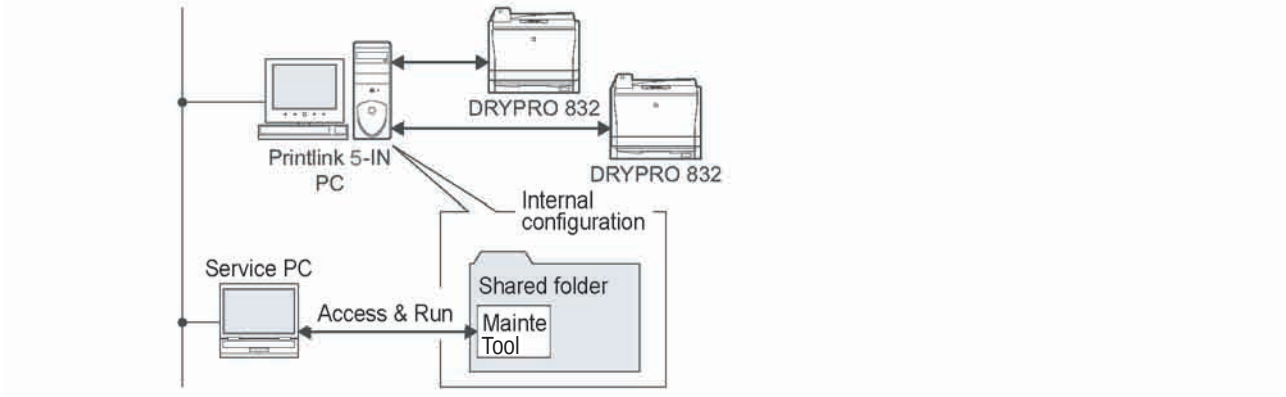
The procedures in this manual require the following tools:

No.	Tools	No.	Tools
1	Service PC × 1 unit	2	LAN cable × 1

16.2.1 Connecting Service PC

Connect the service PC to the facility's network via LAN cable.

1 Connect the service PC as shown below.



This is the end of the process of connecting the service PC.

Now continue to "16.2.2 Setting up Network for Service PC (Page 16-4)" and set up a network for service PC.

16.2.2 Setting up Network for Service PC

Set up the network to allow the service PC and the facility's network to be connected each other.

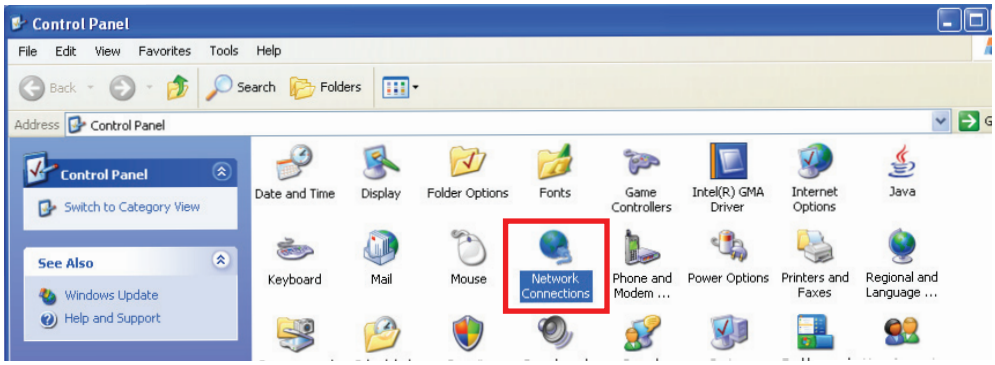
1 Start the service PC.

WindowsXP starts and the desktop appears.

2 Click the [start] button and choose the [Control Panel] command from the start menu.

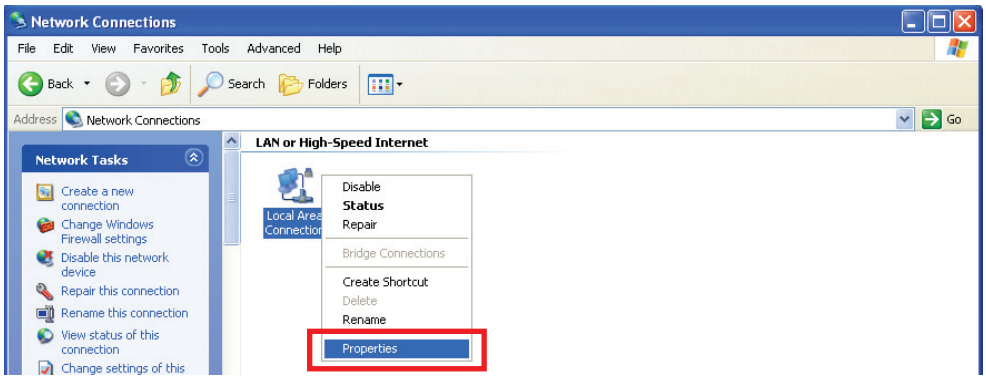
The “Control Panel” window is displayed.

3 Double-click the “Network Connections” icon.



The “Network Connections” window appears.

4 From the popup menu, which appears after right-clicking on the “Local Area Connection” icon, select the [Properties] command.



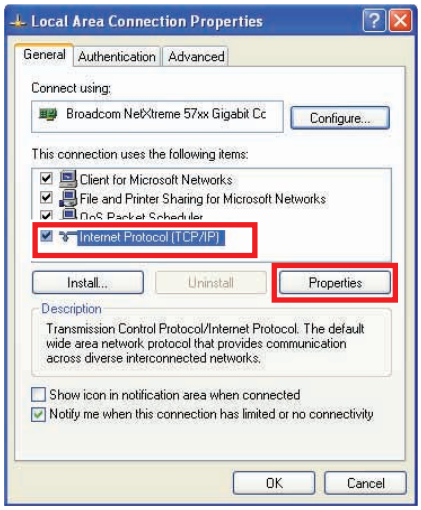
“Local Area Connection Properties” window is displayed.

5 In the [General] panel, under “This connection uses the following items:” click on “Internet Protocol (TCP/IP)”.

When “Internet Protocol (TCP/IP)” is selected, the text is highlighted.

> **Note** If the [General] panel is not displayed, click the [General] tab to display the [General] panel.

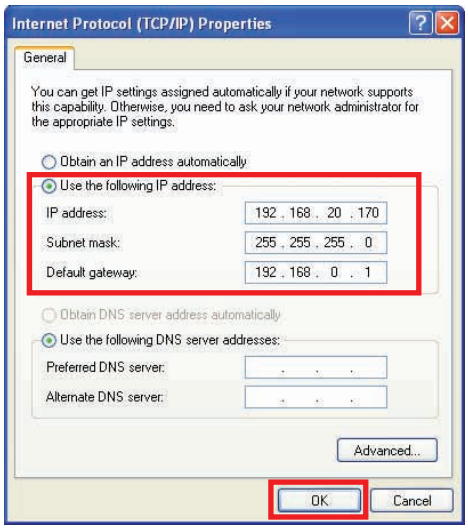
6 Click the [Properties] button.



“Internet Protocol (TCP/IP) Properties” window is displayed.

7 Set the “Use the following IP address:” radio button to ON and adjust the “IP address” and “Subnet mask” to the facility's network settings.

8 Click the [OK] button.



The “Internet Protocol (TCP/IP) Properties” window is closed. Then you will return to the “Local Area Connection Properties” window.

9 Click the [OK] button in the “Local Area Connection Properties” window.

The “Local Area Connection Properties” window is closed. Then you will return to the “Network Connections” window.

10 Close the “Network Connections” window and the “Control Panel” window.

This is the end of the process of setting up the network for the service PC.

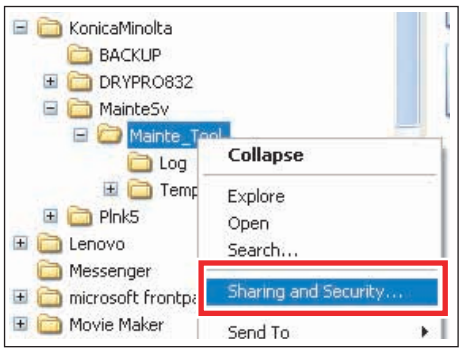
Now continue to “16.2.3 Sharing the Mainte_Tool Folder (Page 16-6)” and change the folder settings.

16.2.3 Sharing the Mainte_Tool Folder

The default setting is to not share the Mainte_Tool folder over the network, so change this setting.

When the Mainte_Tool folder is shared, MainteTool can be started from a maintenance PC connected to the network.

> **Caution** Do not share folders other than the Mainte_Tool folder.



1 The Konicaminolta folder in the C drive of the Printlink5-IN PC expands as shown in the figure on the left.

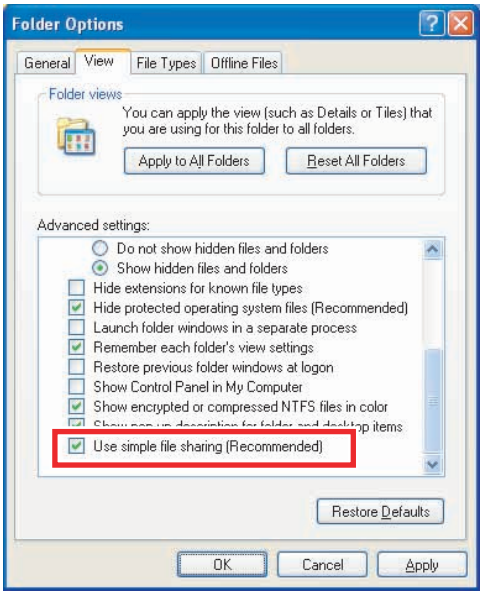
2 Right mouse click on the Mainte_Tool folder and select “Sharing and Security” from the popup menu.

The “Mainte_Tool Properties” window is displayed.

3 Select the “Sharing” tab.

The “Sharing” palette appears.

> **Note** The type of “Shared” pallet differs depending on the status of the “Use simple file sharing (Recommended)” checkbox in the WindowsXP [Control Panel] – [Folder Options] – [Display] pallet.



- If there is a checkmark in the “Use simple file sharing (Recommended)” box, the “ is checked” window is displayed. Proceed to “■ When is checked (Page 16-7)”.
- If there is no checkmark in the “Use simple file sharing (Recommended)” box, the “is not checked” window is displayed. Proceed to “■ When is not checked (Page 16-8)”.

■ When is checked

1 Place a check mark in the “Allow network users to change the file” and “Share folders on the network” checkboxes in “Sharing and Security on the network” and click the [Apply] button.

2 Click the [OK] button.

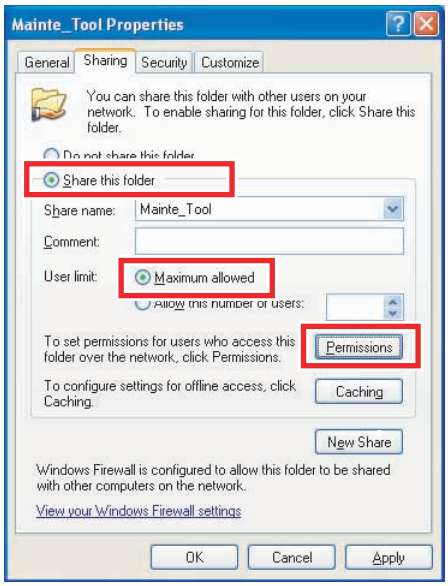
The Mainte_Tool folder will be shared on the network, and the “Mainte_Tool properties” screen will close.

This completes the process of sharing the Mainte_Tool folder.

Continue to“16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

■ When is not checked

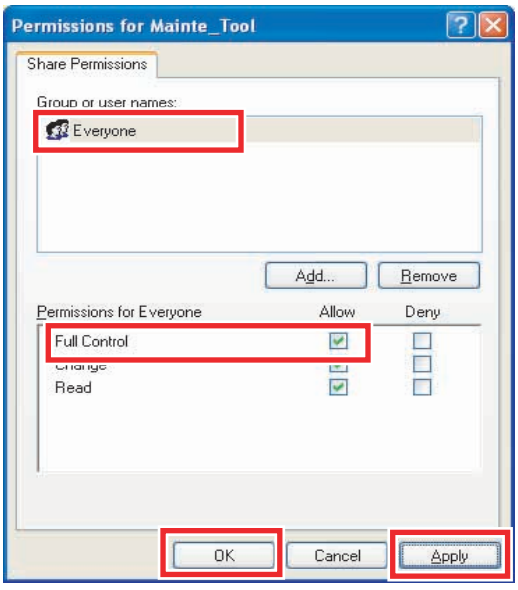
1 Place a checkmark in the “Maximum allowed” boxes in “Share this folder” and “User limit”, and click the [Permissions] button.



The “Sharing” palette appears.

2 Select “Everyone” in “Group or user names”, and place a checkmark in the full control “Allow” box.

3 Click the [Apply] button, and then click the [OK] button.



The Mainte_Tool folder will be shared on the network, and the “Mainte_Tool properties” screen will close.

This completes the process of sharing the Mainte_Tool folder.

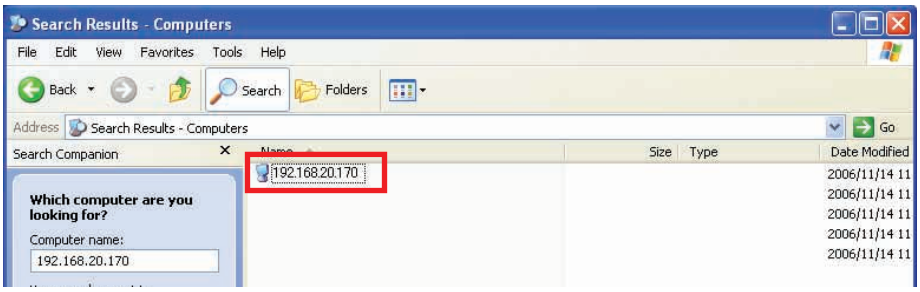
Continue to “16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

16.3 How to Start the MainteTool

1 Enter the IP address of the PC to which DRYPRO 832 is connected in the “Computer name:” field and click the [Search] button.

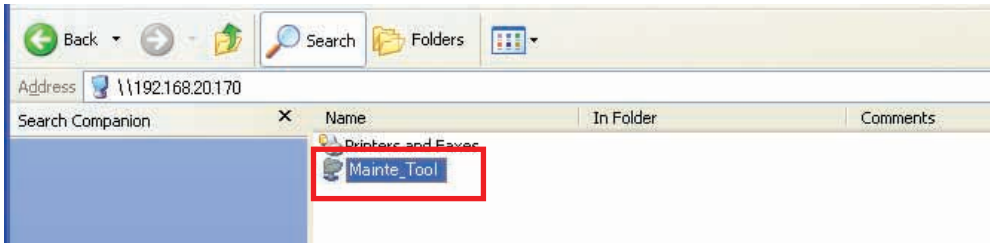
The PC to which DRYPRO 832 is connected appears on the right hand side of the window.

2 Double-click the displayed PC.



The shared folder appears.

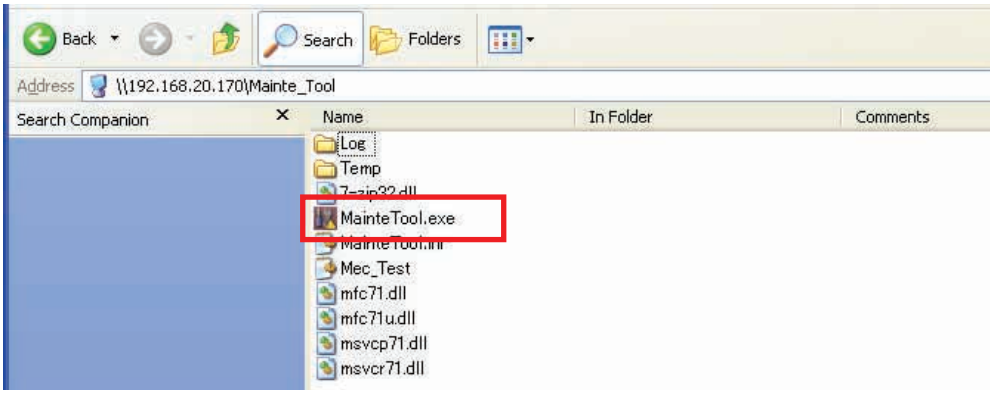
3 Click the shared folder.



The MainteTool program files appear.

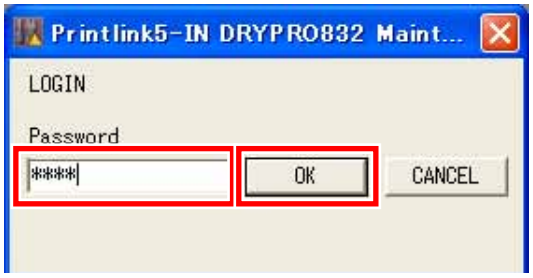
4 Click “Mainte Tool.exe”.

> **Caution** Do not move or delete the dll, ini file, Temp, and Log folder.



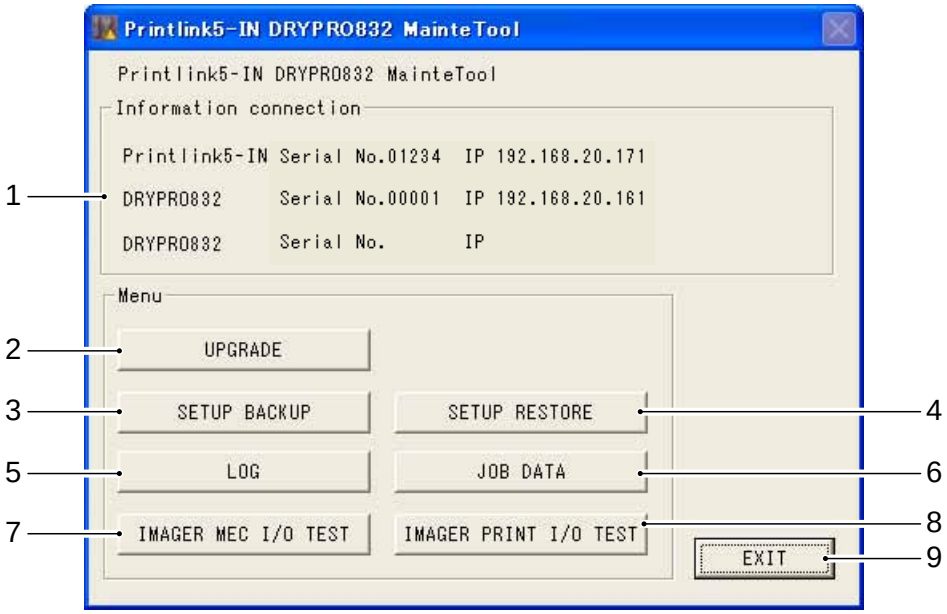
The MainteTool is started and the password entry window is displayed.

5 Enter “5678” in the “Password” entry field and click the [OK] button.



After the “Please wait....” window is displayed, the MainteTool menu window is displayed.

MainteTool Menu Window



The MainteTool menu window contains the following items:

No.	Setup Item	Description of Setting
Information connection		
1	Information connection	The serial numbers and IP addresses of the PC and imager connected to the facility's network are displayed.
Menu		
2	UPGRADE	Upgrade the DRYPRO 832 and Printlink5-IN. For more information, see “16.4 Upgrade Information (Page 16-12)”.
3	SETUP BACKUP	Save the contents set in DRYPRO 832 and Printlink5-IN as a backup file. For more information, see “16.5 Backing up Setup (Page 16-15)”.
4	SETUP RESTORE	Load the contents set in DRYPRO 832 and Printlink5-IN from the backup file. For more information, see “16.6 Restoring Settings (Page 16-26)”.
5	LOG	Collect and load DRYPRO 832 and Printlink5-In logs into service PC. For more information, see “16.7 Collecting Logs (Page 16-33)”.
6	JOB DATA	Collect and load the image data during the specified period into service PC. For more information, see “16.8 Collecting Job Data (Page 16-37)”.

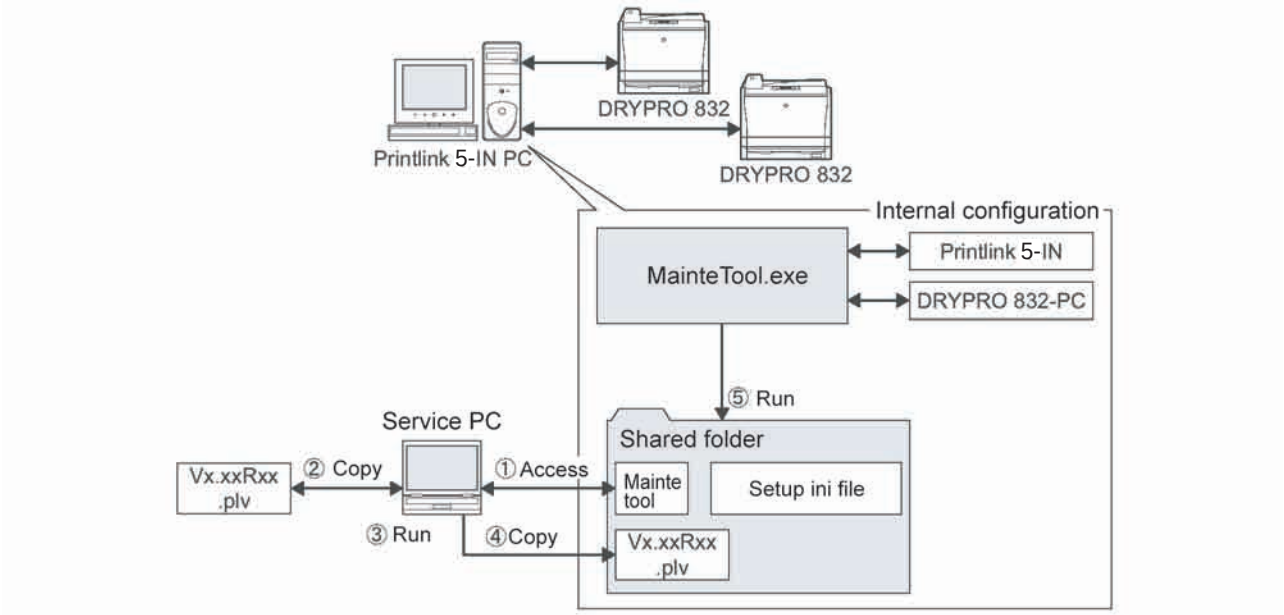
No.	Setup Item	Description of Setting
7	IMAGER MEC I/O TEST	Conduct motor and sensor operation test by operating MEC (mechanical control) when loading parts were replaced. For more information, see "16.9 IMAGER MEC I/O TEST (Page 16-39)".
8	IMAGER PRINT I/O TEST	Conduct exposure unit operation test when parts of the exposure unit were replaced. For more information, see "16.10 IMAGER PRINT I/O TEST (Page 16-49)".
9	[EXIT] Button	Close the main window and exit the MainteTool.

This is the end of the process of starting the MainteTool.

Perform the each operation as needed.

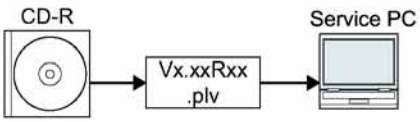
16.4 Upgrade Information

Upgrade the DRYPRO 832 and Printlink5-IN application software.



1 Connect the service PC to the facility's network with reference to “16.2 Setting up Network (Page 16-3)”.

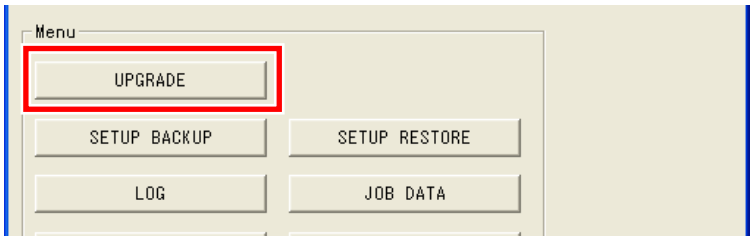
2 Copy the distributed, upgraded execution file to the service PC.



3 Refer to “16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

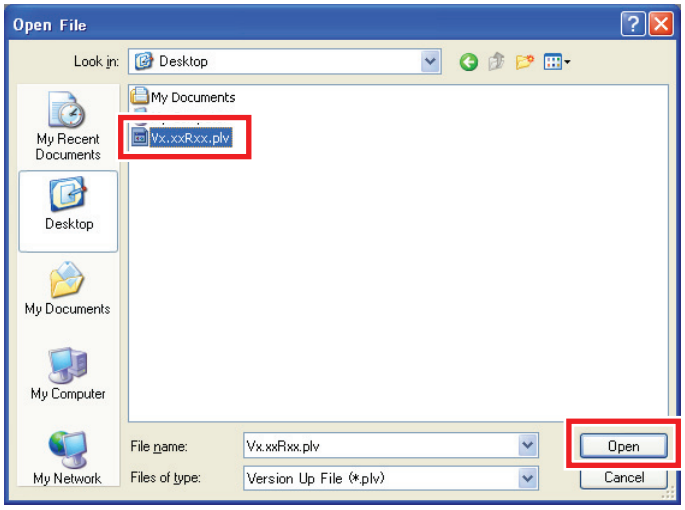
The MainteTool menu window appears.

4 Click the [UPGRADE] button.



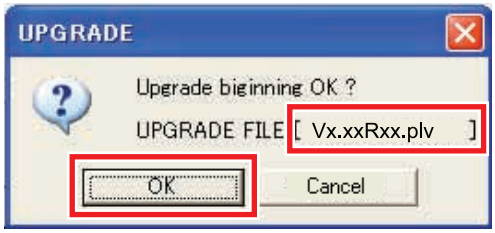
The window in which you can select the file you want to open is displayed.

5 Select the execution file copied in step 2 and click the [Open] button.



The upgrade confirmation window is displayed.

6 Check the currently displayed version and click the [OK] button if it is correct.

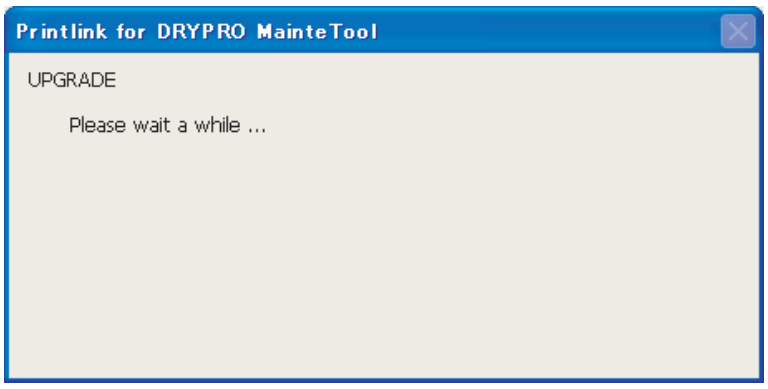


After the message “Please wait a while....” is displayed, upgrading takes place.

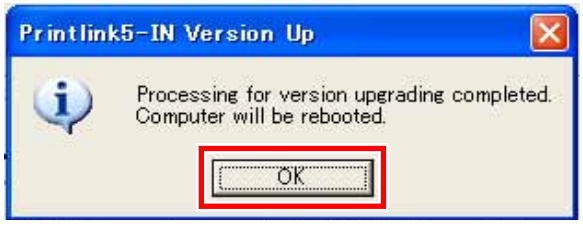
Note

Upgrading requires approximately 2 minutes.

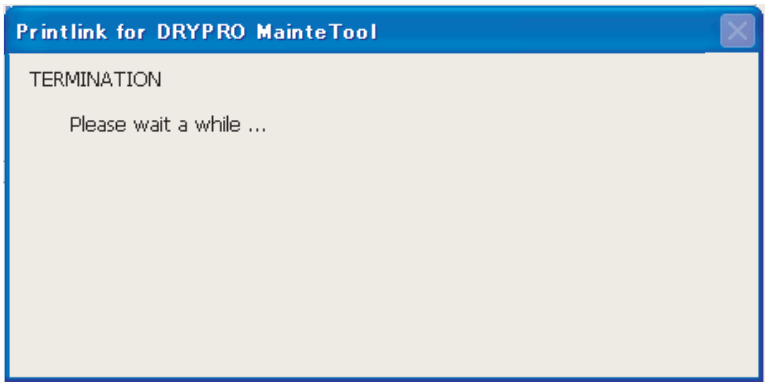
Upon completion of upgrading, a window appears prompting you to restart.



7 Click the [OK] button.



After the message “Please wait a while....” is displayed, the upgraded PC is restarted.



This is the end of the process of upgrading.

16.5 Backing up Setup

Save the contents set in DRYPRO 832 and Printlink5-IN as a backup file.

> **Note**
> Method for backup is different depending on the software version of the DRYPRO 832.
> - Refer to "16.5.1 Backup Method up to V1.01 (Page 16-15)" if the software version is up to V1.01.
> - Refer to "16.5.2 Backup Method for V1.02 and Later (Page 16-18)" if the software version is V1.02 or later.

16.5.1 Backup Method up to V1.01

1 Connect the service PC to the facility's network with reference to "16.2 Setting up Network (Page 16-3)".

2 Refer to "16.3 How to Start the MainteTool (Page 16-9)" and start the MainteTool.

The MainteTool menu window appears.

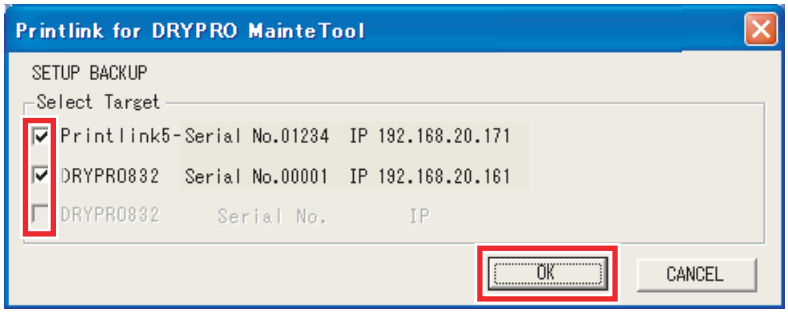
3 Click the [SETUP BACKUP] button.

The window in which you can select the device to obtain backup is displayed.

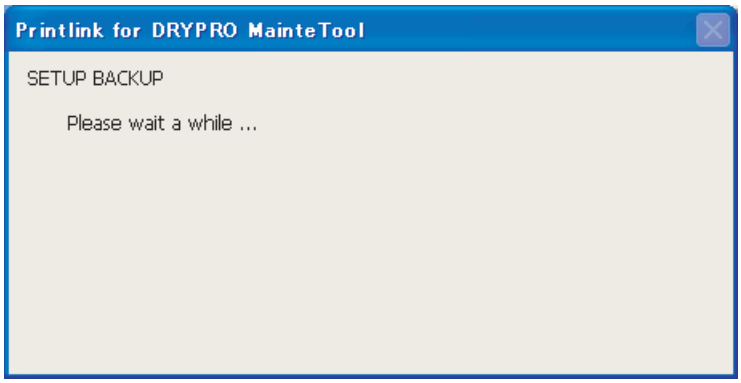
4 Place a checkmark in the box of the device for obtaining backup under "Select Target".

> **Note**
> You can also select multiple devices.

5 Click the [OK] button.

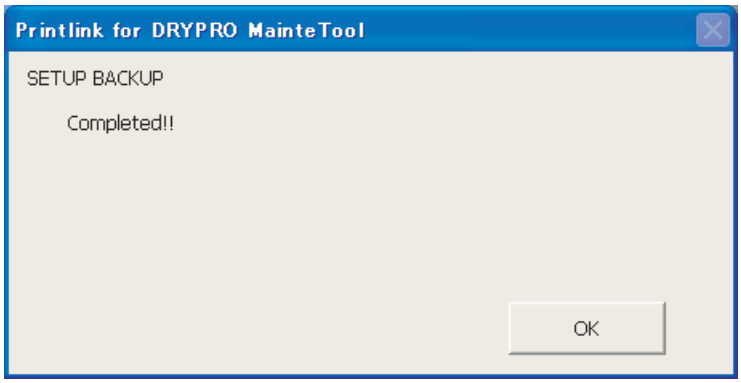


The message “Please wait a while...” appears and collection of backup files starts.



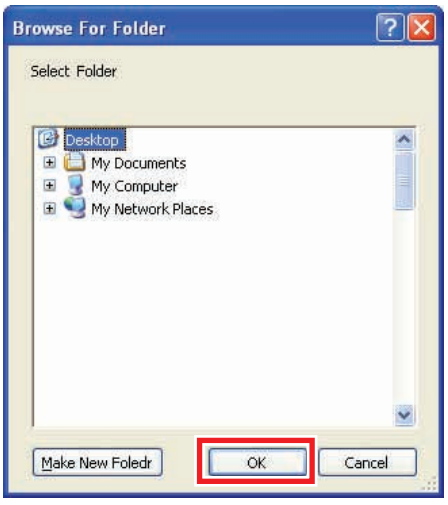
Once collection of backup files has been completed, the window below appears.

6 Click the [OK] button.



The window in which you can specify the backup name and the destination to save is displayed.

7 Specify the “Location where files are stored” and “File name”, and then click the [SAVE] button.



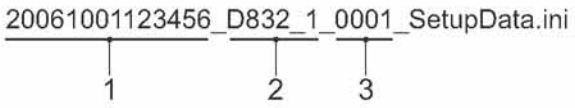
The backup compressed files organized into a folder structure below will be saved in the specified location.

> **Caution** The file name of the saved file can be changed but use a file name that can be distinguished from DRYPRO 832 and Printlink5-IN setup files.

Example:

DRYPRO 832

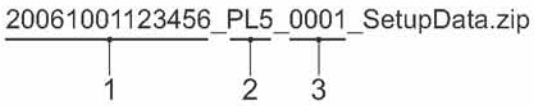
The setup file of DRYPRO 832 is output in the ini file.



No.	Display Contents	Description
1	Date	The date on which the backup file was obtained is named as year, month, day, hour, minute, and second.
2	Equipment Name	"D832" represents DRYPRO 832 and the subsequent number "1" represents the first DRYPRO 832 connected.
3	Serial Number	Represents the serial number of DRYPRO 832 of which backup file was obtained.

Printlink5-IN

The setup file of Printlink5-IN is output in the zip file (compressed file).



No.	Display Contents	Description
1	Date	The date on which the backup file was obtained is named as year, month, day, hour, minute, and second.
2	Equipment Name	"PL5" represents Printlink5-IN.
3	Serial Number	Represents the serial number of Printlink 5-IN of which backup file was obtained.

This is the end of the process of backing up setup.

16.5.2 Backup Method for V1.02 and Later

1 Connect the service PC to the facility's network with reference to “16.2 Setting up Network (Page 16-3)”.

2 Refer to “16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

The MainteTool menu window appears.

3 Click the [SETUP BACKUP] button.

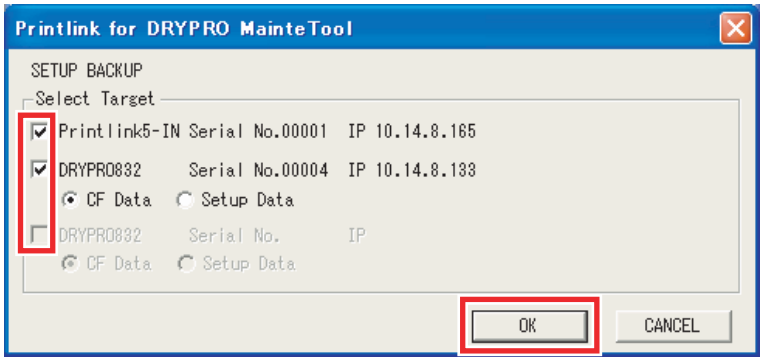
The window in which you can select the device to obtain backup is displayed.

4 Place a checkmark in the checkbox of the device for obtaining backup under “Select Target”.

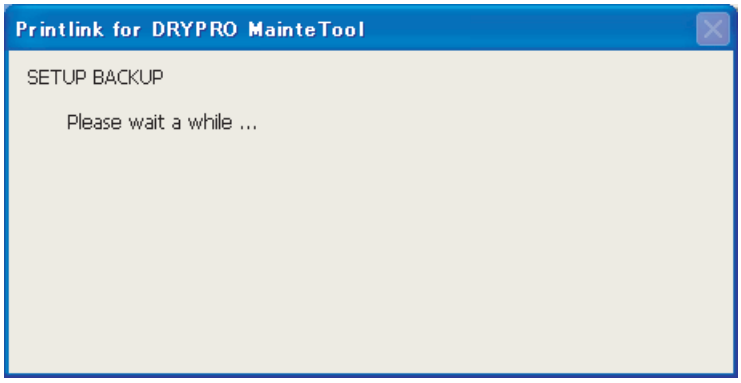
Note

- Display will not be active if the applicable device is not running.
- Printlink5-IN checkbox will not be active if BuildIN is installed on the server PC.
- You can also select multiple devices.
- Select the type of backup when the backup target is DRYPRO 832.
  - CF Data : Obtains the backup data to restore (required).
  - Setup Data : Obtains data related to installation (optional).

5 Click the [OK] button.

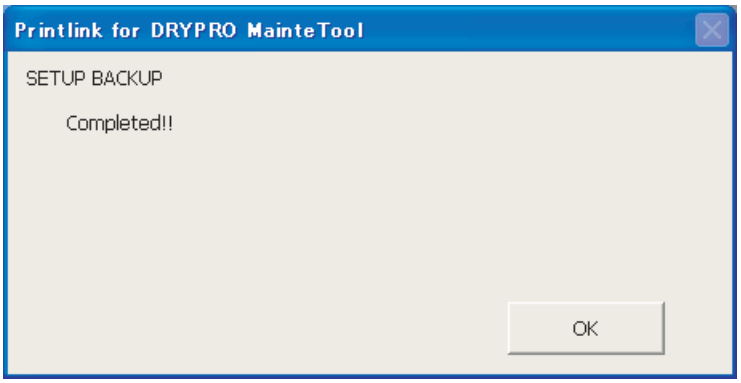


The message “Please wait a while...” appears and collection of backup files starts.



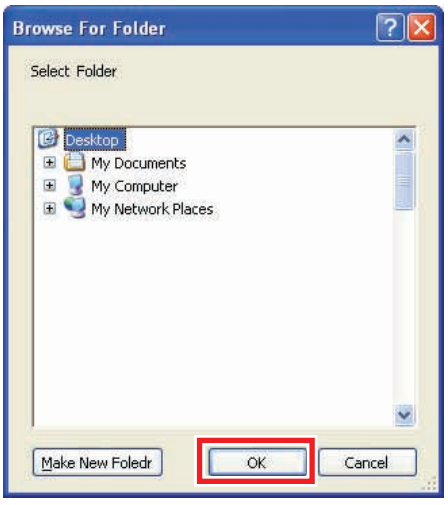
Once collection of backup files has been completed, the window below appears.

6 Click the [OK] button.



The window in which you can specify the backup name and the destination to save is displayed.

7 Specify the “Location where files are stored” and “File name” and then click the [OK] button.



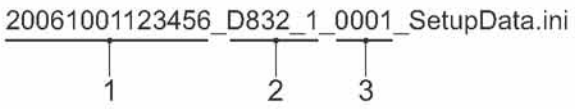
The backup compressed files organized into a folder structure below will be saved in the specified location.

> **Caution** The file name of the saved file can be changed but use a file name that can be recognized as DRYPRO 832 and Printlink5-IN setup files.

Example 1: DRYPRO 832

The setup file of DRYPRO 832 is output in the ini file.

For information about the setting items that are output, refer to "■ List Of SetupData (Page 16-21)".

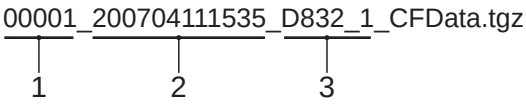


No.	Display Contents	Description
1	Date	The date on which the backup file was obtained is named as year, month, day, hour, minute, and second.
2	Equipment Name	"D832" represents DRYPRO 832 and the subsequent number "1" represents the first DRYPRO 832 connected.
3	Serial Number	Represents the serial number of DRYPRO 832 of which backup file was obtained.

Example 2: DRYPRO 832

The DRYPRO 832 backup file (CFData) is output in the tgz file.

For information about the setting items that are output, refer to "■ List Of CFData (Page 16-22)".

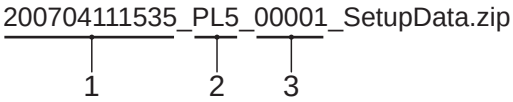


No.	Display Contents	Description
1	Serial Number	Represents the serial number of DRYPRO 832 of which backup file was obtained.
2	Date	The date on which the backup file was obtained is named as year, month, day, hour, and minute.
3	Log Type	Shows the type of log. • D832_1 : DRYPRO 832 primary • D832_2 : DRYPRO 832 secondary

> **Caution** Do not change the first 5 characters (Serial Number) of the name of the DRYPRO 832 backup file (CFData). If changed, it will not restore properly.

Example 3: Printlink5-IN

The Printlink5-IN settings file is output in the zip file (compressed file).



No.	Display Contents	Description
1	Date	The date on which the backup file was obtained is named as year, month, day, hour, and minute.
2	Log Type	"PL5" represents Printlink5-IN.
3	Serial Number	Represents the serial number of Printlink5-IN of which backup file was obtained.

List Of SetupData

Item	Information
Setting Print Parameters (File: PrintCondition01.csv)	Printing management information
	Specifying image size
	Enlargement at integral multiplication ratio
	Print position of patient information (position from bottom edge of film)
	Print size of patient information (character height)
	Print position of stamp (position from bottom edge of film)
Setting Stamp Logo (File: StampLogo.csv)	Logo output
Setting Border Custom (File: BorderCustom.csv)	Film margin (top)
	Film margin (bottom)
	Film margin (right)
	Film margin (left)
Setting Tray (File: TraySetup.csv)	Use tray 1
	Tray 1 size
	Tray 1 type
	Tray 1 number of sheets of package
	Use tray 2
	Tray 2 size
	Tray 2 type
	Tray 2 number of sheets of package
	Continuous use of tray
Setting Calibration (File: CaribrationSetup.csv)	Setting calibration during film loading
	Setting periodic calibration
	Standard interval of periodic calibration (time)
Setting System (File: SystemSetup.csv)	Machine name
	Power OFF mode
	Sleep mode
	Sleep mode switching time
	Error/Empty tone
	Log obtain mode
Setting Date Layout (File: DataLayoutSetup.csv)	Date format
	Date separator
	Time format
Setting Periodic Inspection (File: MaintenanceSetup.csv)	Standard number of printed sheets until periodic inspection 1
	Standard number of hours until changing filter
	Standard number of printed sheets until changing filter
Setting Product (File: ProductSetup.csv)	Device serial number
Density Correction	Correction ON/OFF
	Patch FF correction angle
	Patch gain
	Standard interval for patch correction

List Of CFData

Item	Information
Setting Print Parameters (File: PrintCondition01.csv)	Selecting input device
	Printing management information
	Specifying image size
	Outputting image size specifying stamp
	Enlargement at integral multiplication ratio
	Print position of patient information (position from bottom edge of film)
	Print size of patient information (character height)
	Print position of stamp (position from bottom edge of film)
	Print size of stamp (character height)
Setting Stamp Logo (File: StampLogo.csv)	Logo output
Setting Border Custom (File: BorderCustom.csv)	Film margin at top of film (viewbox area)
	Film margin at bottom of film (text area)
	Film margin (top)
	Film margin (bottom)
	Film margin (right)
	Film margin (left)
	Trim width
	Trim BLACK
	Trim density CLEAR
	Border density BLACK
	Border density CLEAR
	End of film clear width
	Text area width for enlarged text
Setting Tray (File: TraySetup.csv)	Use tray 1
	Tray 1 size
	Tray 1 type
	Tray 1 number of sheets of package
	Use tray 2
	Tray 2 size
	Tray 2 type
	Tray 2 number of sheets of package
	Continuous use of tray
Setting Calibration (File: CaribrationSetup.csv)	Setting calibration during film loading
	Setting periodic calibration
	Standard interval of periodic calibration (time)

Item	Information
Setting System (File: SystemSetup.csv)	Machine name
	Power OFF mode
	Sleep mode
	Sleep mode switching time
	Error/Empty tone
	Log obtain mode
Setting Date Layout (File: DataLayoutSetup.csv)	Date format
	Date separator
	Time format
Setting Periodic Inspection (File: MaintenanceSetup.csv)	Standard number of printed sheets until periodic inspection 1
	Standard number of hours until changing filter
	Standard number of printed sheets until changing filter
Setting Product (File: ProductSetup.csv)	Device serial number
	Print size fine adjustment (vertical)
	Print size fine adjustment (horizontal)
	Print size fine adjustment (dimensions of the requested image)
	HD position adjustment
	VD position adjustment
	Non-uniform lens correction
	Frequency modulation data 1-6
	Magnification correction data
Setting MEC (File: MecSetup.csv)	MEC setup data 1-30
Setting HPRO (File: HeaterSetup.csv)	Normal temperature (preheat)
	Normal temperature (temperature rising)
	Normal temperature (slit)
	Normal temperature (cold removal)
	Sleep mode temperature (preheat)
	Sleep mode temperature (temperature rising)
	Sleep mode temperature (slit)
	Sleep mode temperature (cold removal)
	Spare parameters 1-30
Setting Correction (File: CorrectionSetup.csv)	Established value for phase
	Established value for gain
	Established value for offset
	Established value for sub phase
	Established value for sub gain
	Test gain
	Correction LUT normal 1 side to 6 sides
	Correction LUT mammography 1 side to 6 sides
	Lens correction LUT
	Correction output value (base density)
	Film size to print pattern

Item	Information
	Film type to print pattern
	Established/tentative flag for normal
	Established/tentative flag for mammography
Setting Resin Lens Correction (File: LenzCorrectSetup.csv)	Resin lens combination number
	Lens correction LUT (0)-(4)
Densitometer Factor (File: DensitometerData.csv)	Densitometer correction factor for normal
	Densitometer correction factor for mammography
	Established/tentative flag for normal
	Established/tentative flag for mammography
Setting Densitometer Correction (File: DensitometerSetup.csv)	Film type to print pattern
	Internal densitometer digital value for normal
	Internal densitometer digital value for mammography
	Internal densitometer density value for normal
	Internal densitometer density value for mammography
	Internal densitometer input value for normal
	Internal densitometer input value for mammography
Setting Film Tone Correction (File: DensitometerOffset.csv)	Correction ON/OFF
	Film density conversion LUT (blue → clear)
	Film density conversion LUT (blue → mammography)

16.5.3 Backing Up To MECH EEPROM

Backup to the MECH EEPROM is performed automatically, and it is used to protect data during the replacement of MECH board or the compact flash (CF).

Backed Up Data

- Serial Number
- Tray 1 film count
- Tray 2 film count
- Total output count
- Periodic inspection 1, output count
- Filter change, output count
- Filter change, previous inspection date and time
- Total hours of operation

The following message will be displayed on the DRYPRO 832 with a buzzer during startup, when the MECH board or compact flash (CF) is replaced.

```
Which is exchanged?
MEC :reset CF :enter
```

Press the [reset] button to startup using the data in the EEPROM.

Press the [enter] button to startup using the data in the compact flash (CF).

The following message will be displayed and DRYPRO 832 will be turned OFF when no entry is made within 3 minutes.

```
Turn OFF the power
```

16.6 Restoring Settings

Restore the setup data of DRYPRO 832 and Printlink5-IN from the saved backup file as necessary, for example, when you replaced the control box.

Note

Method for restore is different depending on the software version of the DRYPRO 832.

- Refer to "16.6.1 Restore Method up to V1.01 (Page 16-26)" if the software version is up to V1.01.
- Refer to "16.6.2 Restore Method for V1.02 and Later (Page 16-29)" if the software version is V1.02 or later.

16.6.1 Restore Method up to V1.01

1 Connect the service PC to the facility's network with reference to "16.2 Setting up Network (Page 16-3)".

2 Refer to "16.3 How to Start the MainteTool (Page 16-9)" and start the MainteTool.

The MainteTool menu window appears.

3 Click the [SETUP RESTORE] button.

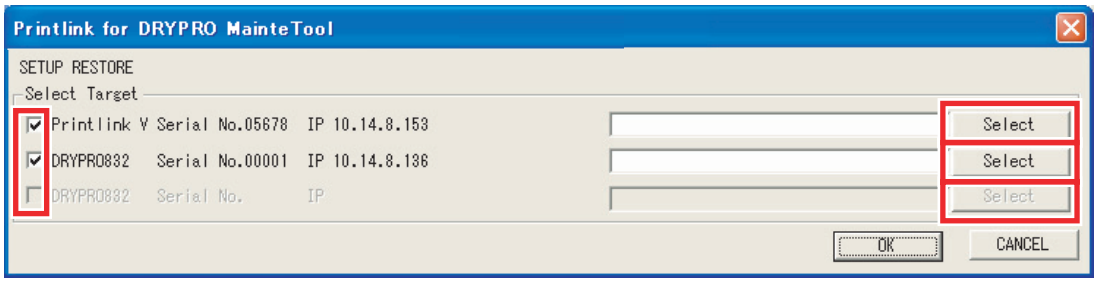
The window in which you can select the device for restore and the file for restore is displayed.

4 Place a checkmark in the box of the device to restore under "Select Target".

Note

- Display will not be active if the applicable device is not running.
- Printlink5-IN checkbox will not be active if BuildIN is installed on the server PC.
- You can also select multiple devices.

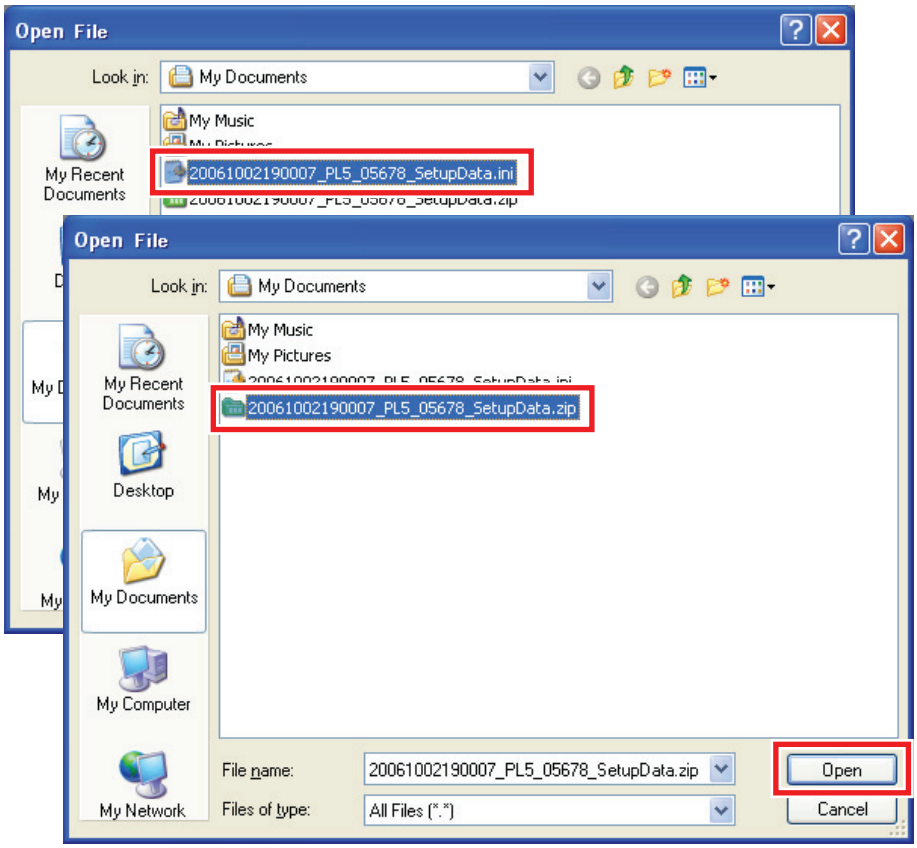
5 Click the [Select] button for the device to restore.



The window in which you can select the file to restore is displayed.

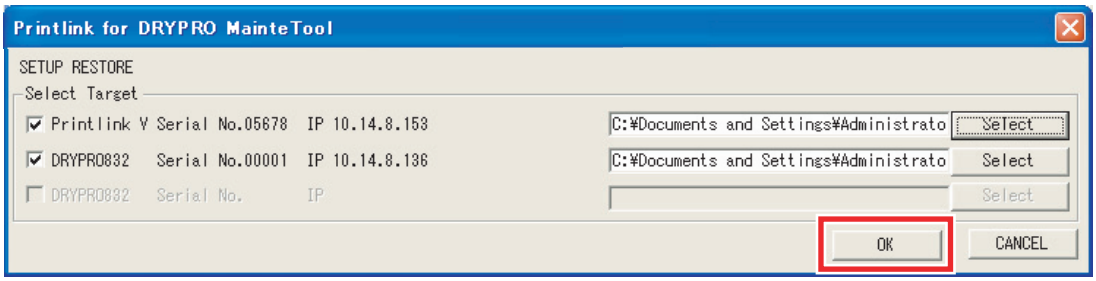
6 Select the file to restore and click the [Open] button.

> **Note** To restore multiple devices, select each file.



The confirmation window appears.

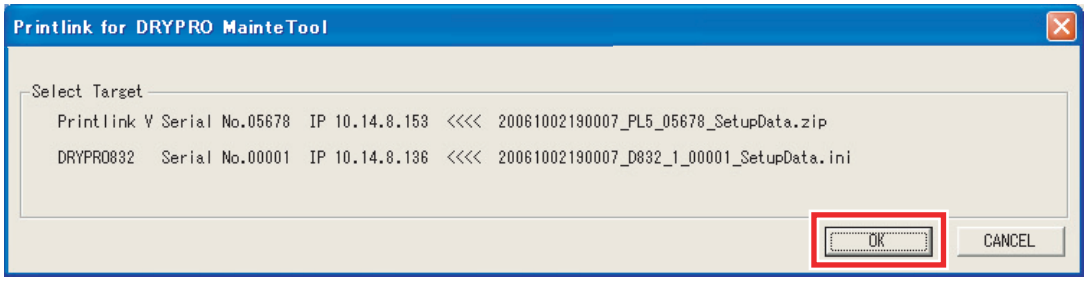
7 Check the device and file to restore again and click the [OK] button if everything is OK.



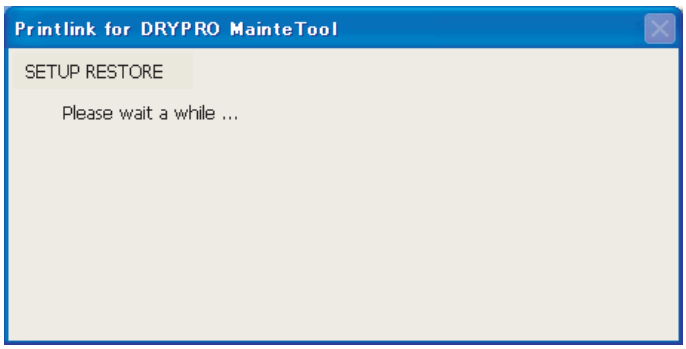
The confirmation window appears.

8 Check the device and file to restore again and click the [OK] button if everything is OK.

> **Caution** Click the [OK] button and verify the source file and the selected device again by checking the serial number and IP address of the destination device of restored data before performing a restore.

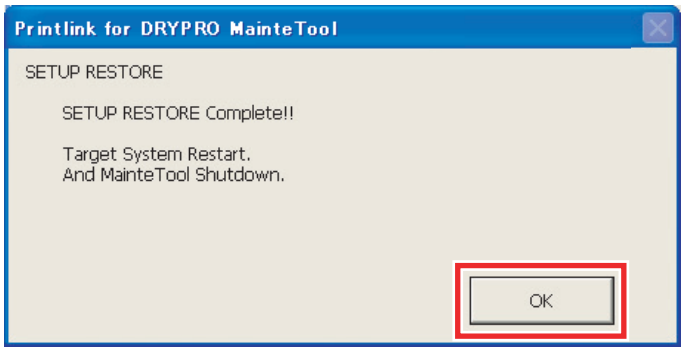


After the message “Please wait....” is displayed, the restore is performed.



When the restore is successfully completed, the following window appears.

9 Click the [OK] button.



After the MainteTool quits, Printlink5-IN is restarted.

This is the end of the process of restoring setup.

16.6.2 Restore Method for V1.02 and Later

1 Connect the service PC to the facility's network with reference to “16.2 Setting up Network (Page 16-3)”.

2 Refer to “16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

The MainteTool menu window appears.

3 Click the [SETUP RESTORE] button.

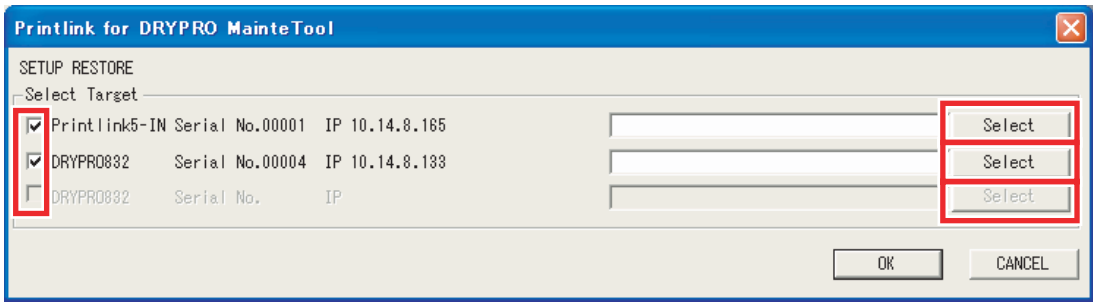
The window in which you can select the device for restore and the file for restore is displayed.

4 Place a checkmark in the checkbox of the device to restore under “Select Target”.

Note

- Display will not be active if the applicable device is not running.
- Printlink5-IN checkbox will not be active if BuildIN is installed on the server PC.
- You can also select multiple devices.

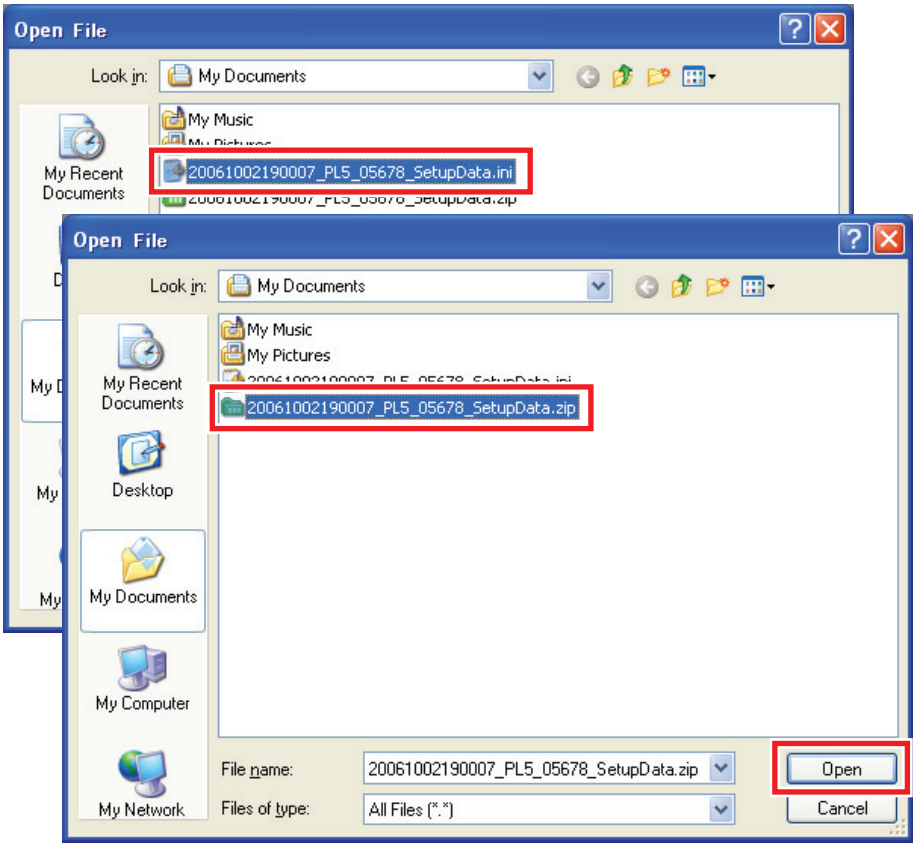
5 Click the [SELECT] button for the device to restore.



The window in which you can select the file to restore is displayed.

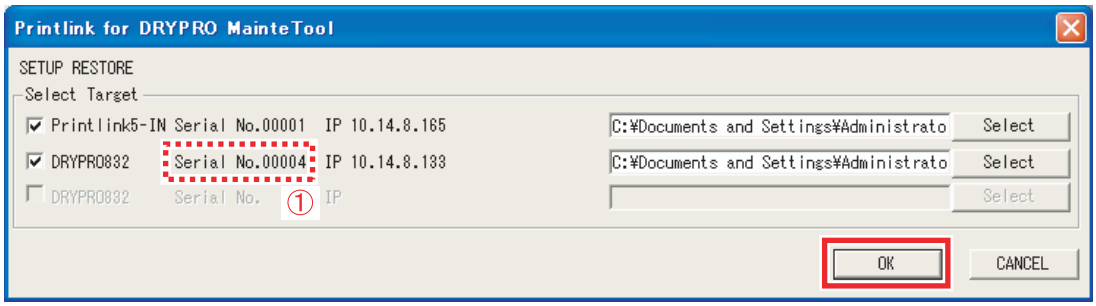
6 Select the file to restore and click the [Open] button.

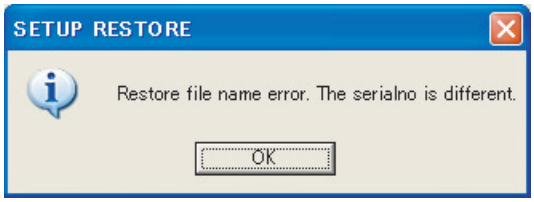
> **Note** To restore multiple devices, select each file.



The confirmation window appears.

7 Check the device and file to restore again and click the [OK] button if everything is OK.

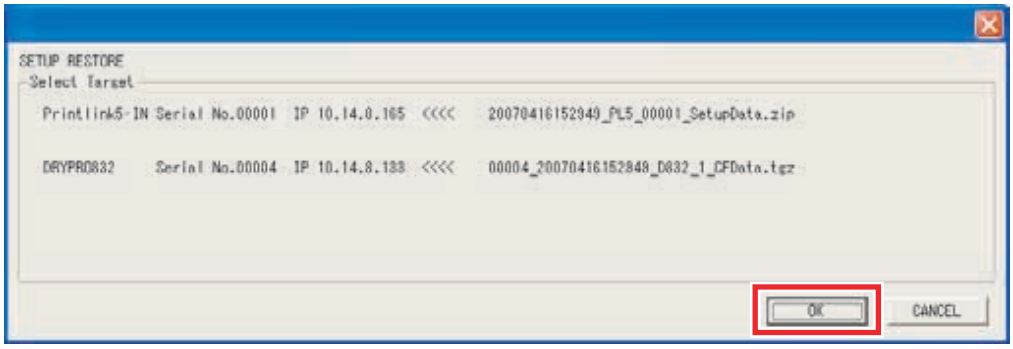


> **Caution** First 5 characters in the name of the DRYPRO 832 backup file (CFData) represents the serial number. The following error dialog is displayed when the Serial Number of the file and the serial number of the DRYPRO 832 to be restored is different.
>
> 
>
>
> Check the serial number in the label on DRYPRO 832, and if it is different from ① in above diagram, correct the "SERIAL NO." in PRODUCT SETUP, and perform from step 5 again.
> For information on PRODUCT SETUP, refer to "15.17 Product Setup (Page 15-37)".
> If the serial number checked on the label of DRYPRO 832 is same as ① of above diagram, go back to step 5, and select the backup file with same serial number as the one on the label of the DRYPRO 832.

The confirmation window appears.

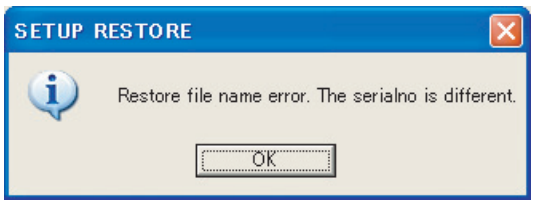
8 Check the device and file to restore again and click the [OK] button if everything is OK.

> **Caution** Click the [OK] button and verify the source file and the selected device again by checking the serial number and IP address of the destination device of restored data before performing a restore.



> **Caution** Error dialog may be displayed when the [OK] button is clicked in above diagram.

If the backup file for DRYPRO 832 is not valid



Check the serial number of the target file, and repeat from step 5.

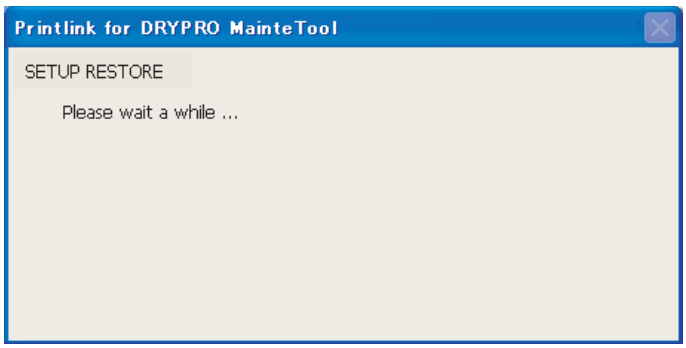
Connection error with DRYPRO 832

Check the network connection status between the server PC and the DRYPRO 832.
Refer to the installation manual regarding network connection.

Network error on server PC

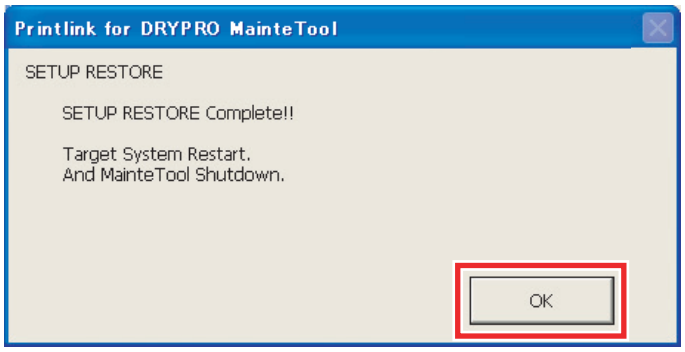
Check if the network cable is connected to the server PC.
Refer to the installation manual regarding network connection.

After the message “Please wait a while....” is displayed, the restore is performed.



When the restore is successfully completed, the following window appears.

9 Click the [OK] button.



Restored device is restarted.

Executed	Restarting Device
Executed restore of server PC and DRYPRO 832	Server PC and DRYPRO 832
Executed restore of server PC only	Server PC
Executed restore of DRYPRO 832 only	Server PC and DRYPRO 832

This is the end of the process of restoring setup.

16.7 Collecting Logs

Collect and load DRYPRO 832 and Printlink5-IN logs into service PC.

Collect the appropriate log in the following procedure when there is a problem with DRYPRO 832, Printlink5-IN, or MainteTool.

1 Connect the service PC to the facility's network with reference to “16.2 Setting up Network (Page 16-3)”.

2 Refer to “16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

The MainteTool menu window appears.

3 Click the [LOG] button.

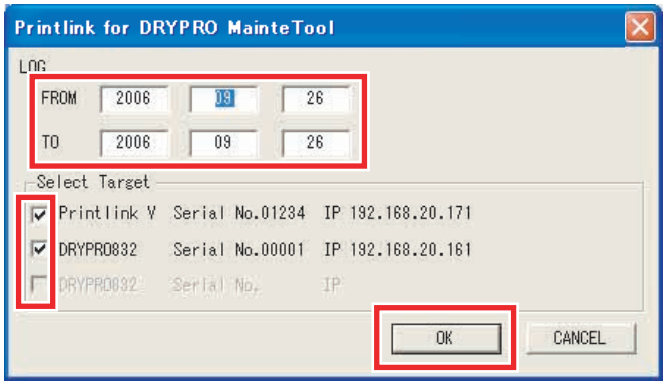
The window in which you can select the period and device to collect LOG is displayed.

4 Enter the time when collection of logs starts in the “FROM” entry field and the time when collection of logs ends in the “TO” entry field.

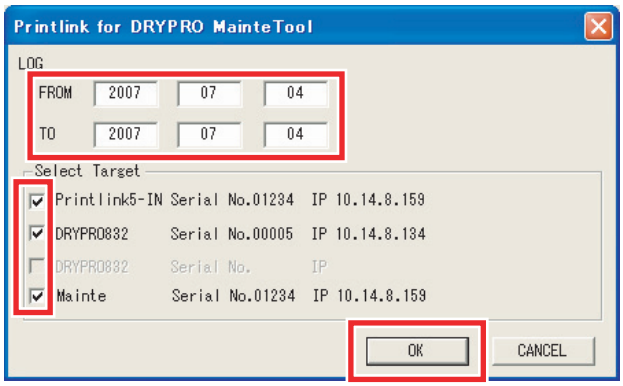
5 Place a checkmark in the box of the device to collect logs under “Select Target”.

6 Click the [OK] button.

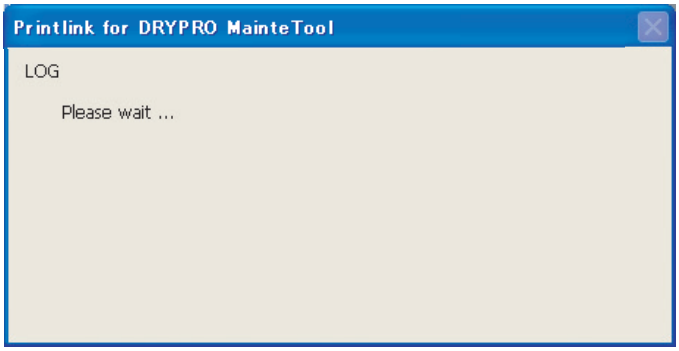
If the version of software for DRYPRO 832 is up to V1.01



If the version of software for DRYPRO 832 is V1.02 or later



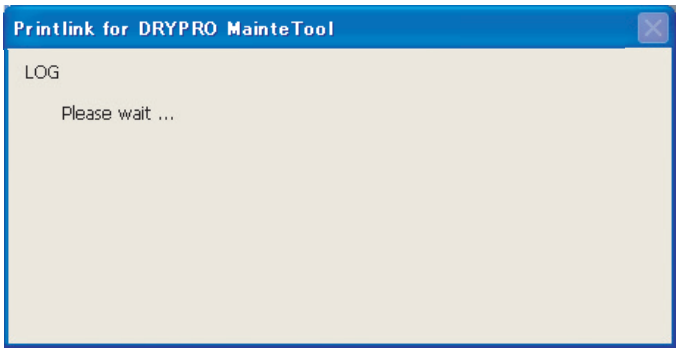
The message “Please wait...” appears and collection of logs starts.



When the collection of logs is finished, the window in which you can specify the destination to save is displayed.

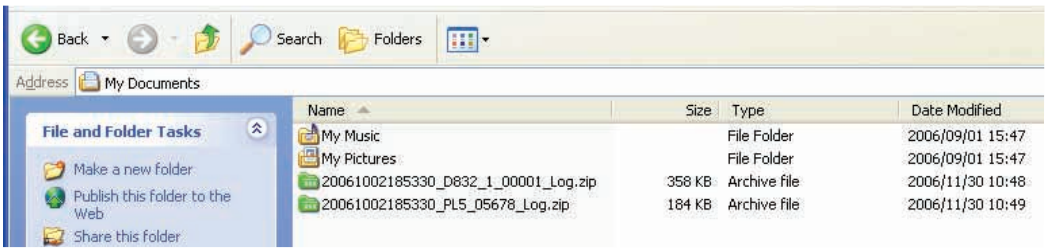
7 Specify the “Location where files are stored” and “File name”, and then click the [SAVE] button.

The message “Please wait...” appears and the process of saving the log compressed files in the specified folder starts.



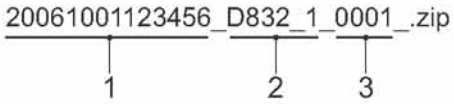
The log compressed files organized into a folder structure below will be saved in the specified location.

Note The file name of the saved file can be changed but use a file name that can be distinguished from DRYPRO 832 and Printlink5-IN setup files.



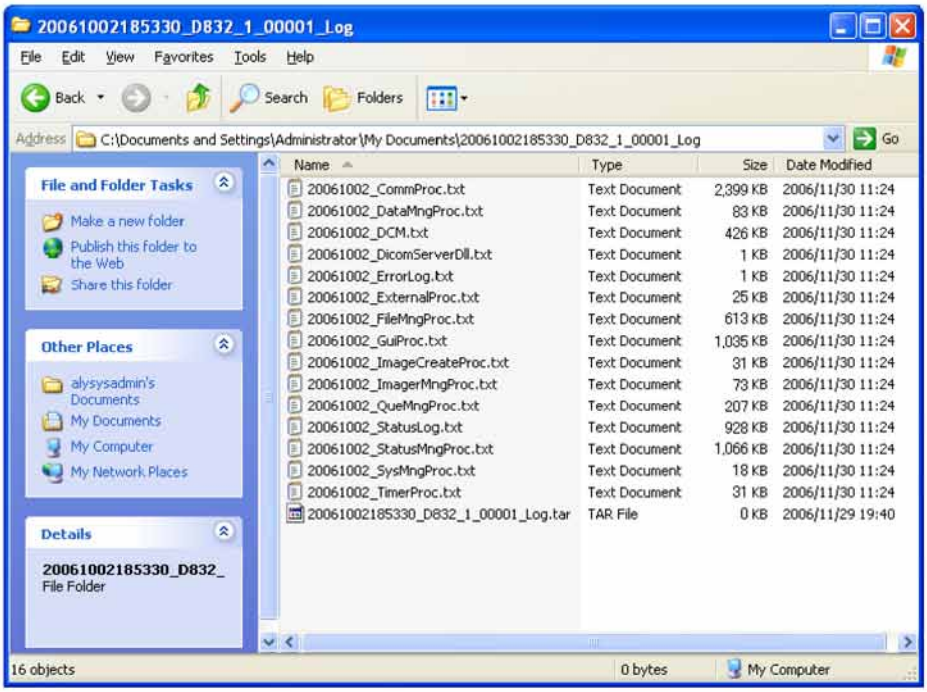
Example:

DRYPRO 832



No.	Display Contents	Description
1	Date	The date on which the log was obtained is named as year, month, day, hour, minute, and second.
2	Equipment Name	"D832" represents DRYPRO 832 and the subsequent number "1" represents the first DRYPRO 832 connected.
3	Serial Number	Represents the serial number of DRYPRO 832 of which log was obtained.

When the above zip file (compressed file) is decompressed, the logs of DRYPRO 832 and Printlink5-IN are expanded as shown below:



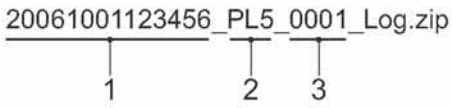
The txt file is a log of Printlink5-IN while the file compressed in the tar format is a log file of DRYPRO 832.

When the compressed log file of DRYPRO 832 decompressed, it is expanded in the txt file as with the log file of Printlink5-IN.

When the process of saving files is finished, the window appears, showing the completion.

Example:

Printlink5-IN



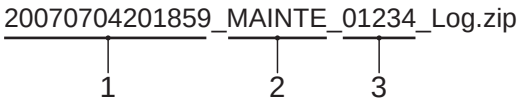
No.	Display Contents	Description
1	Date	The date on which the log was obtained is named as year, month, day, hour, minute, and second.
2	Equipment Name	"PL5" represents Printlink5-IN.
3	Serial Number	Represents the serial number of Printlink5-IN of which log was obtained.

When the above zip file (compressed file) is decompressed, the log of Printlink5-IN is expanded in the txt file.

When the process of saving files is finished, the window appears, showing the completion.

Example:

MainteTool

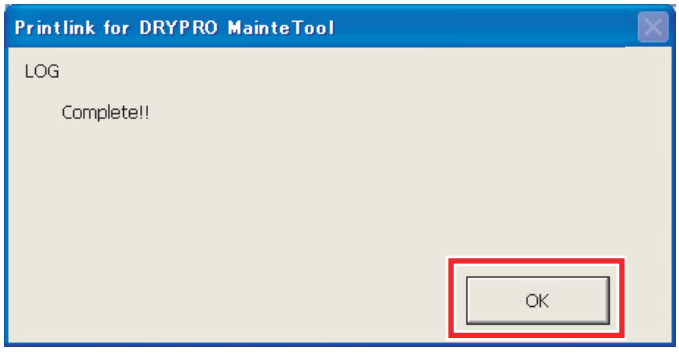


No.	Display Contents	Description
1	Date	The date on which the log was obtained is named as year, month, day, hour, minute, and second.
2	Equipment Name	"MAINTE" represents MainteTool.
3	Serial Number	Represents the serial number of DRYPRO 832 of which log was obtained.

When the above zip file (compressed file) is decompressed, the log of MainteTool is expanded in the txt file.

When the process of saving files is finished, the window appears, showing the completion.

8 Click the [OK] button.



The window to select the period and device for collecting the LOG is closed and the screen returns to the MainteTool menu window.

This is the end of the process of collecting logs.

16.8 Collecting Job Data

Collect job data processed by Printlink5-IN into service PC.

1 Connect the service PC to the facility's network with reference to “16.2 Setting up Network (Page 16-3)”.

2 Refer to “16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

The MainteTool menu window appears.

3 Click the [JOB DATA] button.

The window in which you can select the period to collect job data is displayed.

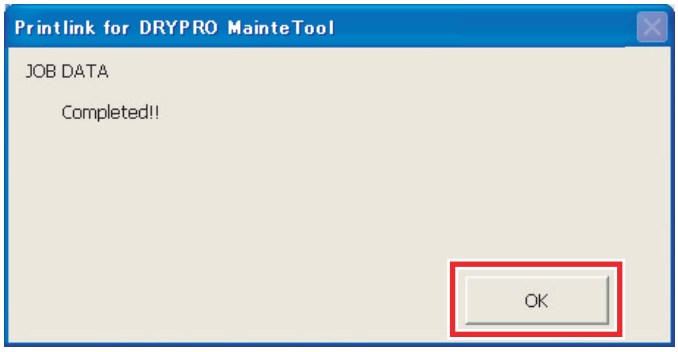
4 Enter the time when collection starts in the “FROM” entry field and the time when collection ends in the “TO” entry field.

5 Click the [OK] button.

The message “Please wait a while...” appears and collection of job data starts.

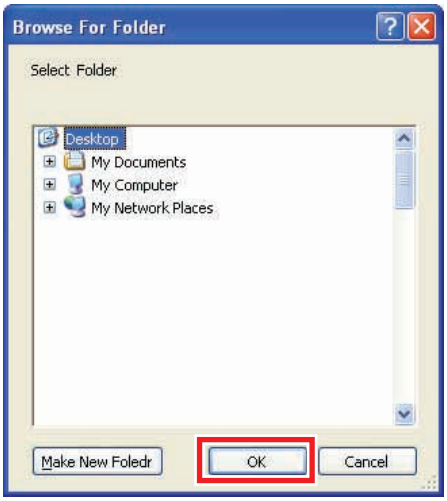
When the collection of job data is finished, the window in which you can specify the destination to save is displayed.

6 Click the [OK] button.



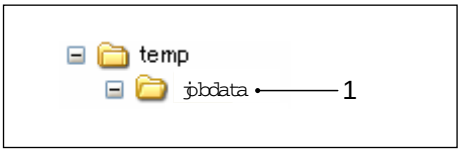
A screen for designating a backup name and save destination is displayed.

7 Specify the “Location where files are stored” and “File name”, and then click the [SAVE] button.



The message “Please wait a while...” appears and the process of saving job data in the specified folder starts.

The job data files organized into a folder structure below will be saved in the specified location.



No.	Description
1	The job data will be saved.

When the process of saving files is finished, the window appears, showing the completion.
Close the window to select the period to collect job data to return to the MainteTool menu window.

This is the end of the process of collecting job data.

16.9 IMAGER MEC I/O TEST

Conduct motor and sensor operation test by operating MEC (mechanical control) when loading parts were replaced.

Caution

- When you check each loading operation or sensor ON/OFF with the exterior cover opened, remove the supply tray so that film that is already loaded in the supply tray won't be affected.
- When performing work, be careful not to get your clothes or fingers caught in driving parts.
- With the loading part driven in one position, you can drive other loading parts. However, it should be noted that inconsistent operation could cause equipment failure.
- After operating any loading, DRYPRO 832 may be unstable. Turn it off once and initialize it.

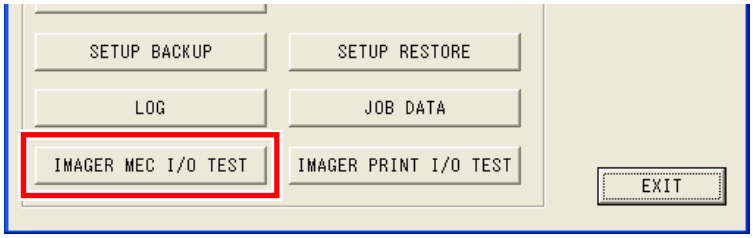
This section describes the procedure for displaying the "MEC I/O TEST" window.

1 Connect the service PC to the facility's network with reference to "16.2 Setting up Network (Page 16-3)".

2 Refer to "16.3 How to Start the MainteTool (Page 16-9)" and start the MainteTool.

The MainteTool menu window appears.

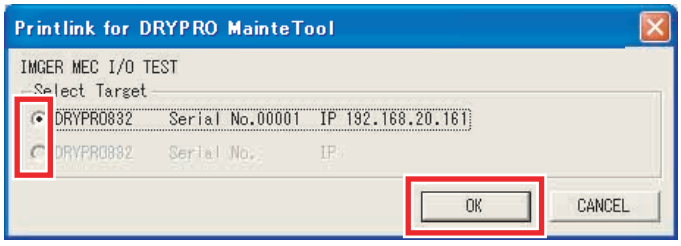
3 Click the [IMAGER MEC I/O TEST] button.



The window in which you can select device for conducting an I/O test is displayed.

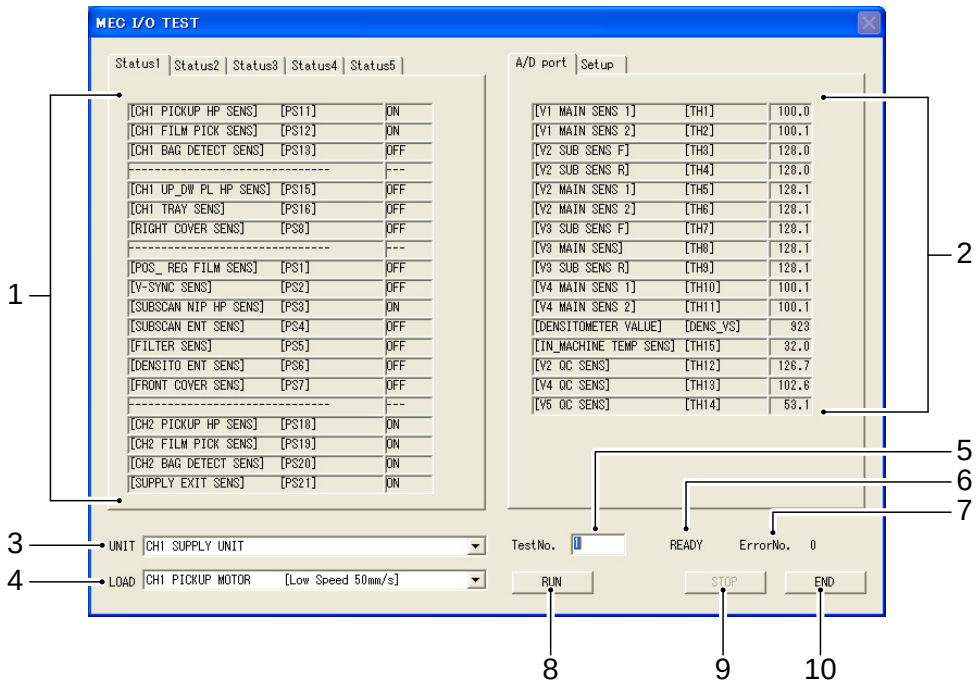
4 Place a checkmark in the box of the device for conducting I/O test under "Select Target".

5 Click the [OK] button.



The "IMAGER MEC I/O TEST" window appears.

“IMAGER MEC I/O TEST” window - [Status] tab, [A/D port] tab

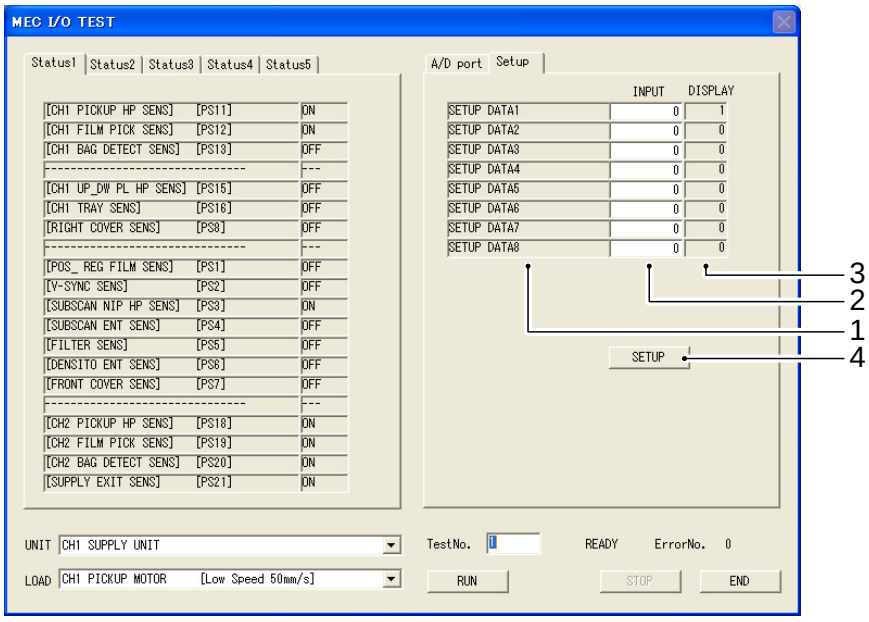


The “IMAGER MEC I/O TEST” window contains the following items:

No.	Item	Description	
1	Sensor display field	Contains tabs from [Status1] to [Status5]. Each tab displays 20 sensor names and statuses. For information on status name, see “■ MEC I/O Test Sensor Name List (Page 16-46)”. The status of sensor, ON (detected) or OFF (undetected), is displayed .	
2	Other information field	Information on AD Port 1 to AD Port 14 is displayed in decimal number (0 - 1024). The temperature sensor is displayed by converting to the temperature.	
3	UNIT	Select the unit for performing MEC I/O test. For more information, see “■ Test Number List (Page 16-42)”.	
4	LOAD	Select load and operation. For more information, see “■ Test Number List (Page 16-42)”. Load that you can select varies, depending on the unit you choose.	
5	Test No.	Enter the test number for the I/O test. You can enter a value from 0 to 239. For information on test number, see “■ Test Number List (Page 16-42)”.	
6	MEC status display	Displays the status of MEC.	
		READY	MEC is ready.
		BUSY	MEC is busy. Even if you press the [RUN] button, it does not work when MEC is busy.
7	ErrorNo.	If an error occurred in MEC, the error code is displayed in four digits.	
8	[RUN] button	Send the test number entered to DRYPRO 832 via “ID” and run a MEC I/O test with the specified test number. Even if you click the [RUN] button, it does not work when the MEC status display shows “BUSY”.	
9	[STOP] button	Stops the MEC I/O test being run.	

No.	Item	Description
10	[END] button	Ends the MEC I/O test. Pressing the [END] button causes MEC to start initialization.

“IMAGER MEC I/O TEST” window - [Status] tab, [Setup] tab



[Setup] tab

No.	Item	Description	
1	SETUP DATA	You can display and change the setup data necessary for MEC I/O test.	
		SETUP DATA 1	Number of operations The appropriate test only is valid. For more information, see “■ Test Number List ”.
		SETUP DATA 2 - 8	Nonuse
2	INPUT	When the [SETUP] button is pressed, the value entered is sent to DRYPRO 832.	
3	DISPLAY	The value received in the response is sent.	
4	[SETUP] Button	The value entered in the entry field is sent to DRYPRO 832. When the MEC status display shows BUSY, you cannot press the button.	

6 Perform MEC I/O test as necessary.

■ Test Number List

Single loading operation

Unit name: CH1 SUPPLY UNIT

Test No.	Load name	Description of operation
CH1 PICKUP MOTOR		
1	Low Speed 50 mm/s	Drives at low transport speed (50 mm/s).
2	High Speed 100 mm/s	Drives at high transport speed (100mm/s).
3	Stop	Causes the motor to stop running.
CH1 UP_DW PL MOTOR (CH1 Supply Up/Down motor)		
4	Upward	Moves up the up/down plate.
5	Downward	Moves down the up/down plate.
CH1 TRAY LOCK SOL (CH1 supply tray lock solenoid)		
6	Activate 1 second (ON for a given time 1 second)	ON (1 second)
CH1 PICKUP ESC MOTOR (CH1 Pickup ESC Motor)		
7	To Home Position	Moves to the home position.
8	To Transport Position	Moves to the transport position.
9	Rotate continuously	Rotates continuously.
10	Stop	Stops operation.

Unit name: CH2 SUPPLY UNIT

Test No.	Load name	Description of operation
CH2 PICKUP MOTOR		
11	Low Speed 50 mm/s	Drives at low transport speed (50 mm/s).
12	High Speed 100 mm/s	Drives at high transport speed (100mm/s).
13	Stop	Causes the motor to stop running.
CH1 UP_DW PL MOTOR (CH2 Supply Up/Down motor)		
14	Upward	Moves up the up/down plate.
15	Downward	Moves down the up/down plate.
CH2 TRAY LOCK SOL (CH2 Supply Tray Lock Solenoid)		
16	Activate 1 second (ON for a given time 1 second)	ON (1 second)
CH2 PICKUP ESC MOTOR (CH2 Pickup ESC Motor)		
17	To Home Position	Moves to the home position.
18	To Nip Position	Moves to the transport position.
19	Rotate continuously	Rotates continuously.
20	Stop	Stops operation.
TRANSPORT MOTOR		
21	Low Speed 50 mm/s	Drives at low transport speed (50 mm/s).
22	High Speed 100 mm/s	Drives at high transport speed (100mm/s).
23	Stop	Causes the motor to stop running.
Nip OPEN-CLOSE MOTOR		
24	To Home Position	Moves to the home position.

Test No.	Load name	Description of operation
25	To Nip Position	Moves to the nip position.
26	Rotate continuously	Rotates continuously.
27	Stop	Stops operation.

Unit name: JUSTIFICATION UNIT

Test No.	Load name	Description of operation
JUSTIFICATION MOTOR		
28	Low Speed 33 mm/s	Drives at low transport speed (33mm/s).
29	Middle Speed 50 mm/s	Drives at medium transport speed (50 mm/s).
30	High Speed 100 mm/s	Drives at high transport speed (100mm/s).
31	Reverse at 106.8 mm/s (Reverse at 106.8 mm/s (4000 Hz))	Drives at reverse rotation.
32	Stop	Causes the motor to stop running.

Unit name: SUB SCAN UNIT

Test No.	Load name	Description of operation
SUB SCAN MOTOR		
33	Scan speed 33 mm/s	Drives at exposure transport speed (33 mm/s).
34	Stop	Causes the motor to stop running.
SUB SCAN NIP MOTOR		
35	To Home Position	Moves to the home position.
36	To Strong Nip Position	* Operating from the home position brings to the strong nip position.
37	Rotate 90 degrees	Rotates 90 degrees from the present position.
38	Rotate continuously	Rotates continuously.
39	Stop	Stops operation.

Unit name: HEAT PROCESS /MAIN

Test No.	Load name	Description of operation
HEAT PROCESS MOTOR		
40	Trans speed 32.5 mm/s	Drives at heat process transport speed (32.5 m/s).
41	Stop	Causes the motor to stop running.
HEAT PROCESS FAN1		
42	Rotate continuously	Rotates continuously.
43	Stop	Causes the fan to stop running.
HEAT PROCESS FAN2		
44	Rotate continuously	Rotates continuously.
45	Stop	Causes the fan to stop running.
INSULATION&SUP FAN		

Test No.	Load name	Description of operation
46	Rotate continuously	Rotates continuously.
47	Stop	Causes the fan to stop running.
DEODORANT FAN		
48	Rotate continuously	Rotates continuously.
49	Stop	Causes the fan to stop running.

Unit name: DENSITOMETER

Test No.	Load name	Description of operation
DENSITOMETER LED		
50	ON	Turns on the densitometer LED.
51	OFF	Turns off the densitometer LED.

Unit name: EXIT TRANSPORT UNIT

Test No.	Load name	Description of operation
EXIT TRANSPORT MOTOR		
52	Low speed 32.5mm/s	Drives at low transport speed (32.5mm/s).
53	High Speed 100mm/s	Drives at high transport speed (100mm/s).
54	Stop	Causes the motor to stop running.

Unit name: OPERATION PANEL

Test No.	Load name	Description of operation
BUZZER		
55	Sound 1 second (ON for a given time)	ON (1 second)
LED BACKLIGHT (LCD backlight)		
56	Turn OFF 1 second (OFF for a given time)	OFF (1 second)
Open/Enter LED (Open/Enter LED)		
57	ON	Turns on the LED.
58	OFF	Turns off the LED.
Reset/Cancel LED (Reset/Cancel LED)		
59	ON	Turns on the LED.
60	OFF	Turns off the LED.
STATUS BLUE LED (Status blue LED)		
61	ON	Turns on the LED.
62	OFF	Turns off the LED.
STATUS ORANGE LED (Status orange LED)		
63	ON	Turns on the LED.
64	OFF	Turns off the LED.

Continuous Motion

Unit name: UNIT OPERATION (Continuous motion)

Test No.	Load name	Description of motion
100	CH1 SUPPLY MOTION (CH1 Supply Motion)	No multiple sheets (Supply, justification, and sub scan unit are needed.)
101	CH1 PICKUP MOTION (CH1 Pickup Motion)	Multiple sheets allowed (Supply unit is needed.)
102	CH1 EXPOSURE TO EXIT (CH1 Exposure - Exit Motion)	No multiple sheets (Supply, heat processing, and ejection unit are needed: The densitometer does not read.)
110	CH2 SUPPLY MOTION (CH2 Supply Motion)	No multiple sheets (Supply, justification, and sub scan unit are needed.)
111	CH2 PICKUP MOTION (CH2 Pickup Motion)	Multiple sheets allowed (Supply unit is needed.)
112	CH2 EXPOSURE TO EXIT (CH2 Exposure - Exit Motion)	No multiple sheets (Supply, heat processing, and ejection unit are needed: The densitometer does not read.)

■ MEC I/O Test Sensor Name List

Input port

No.	Name	Symbol	Details
1	CH1 PICKUP HP SENS (CH1 Pickup HP Sensor)	PS11	Pickup roller home position sensor
2	CH1 FILM PICK SENS (CH1 Film Pick Sensor)	PS12	Sensor that detects the height of film (pickup position)
3	CH1 BAG DETECT SENS (CH1 Bag Detect Sensor)	PS13	Sensor that detects the presence or absence of the barrier bag
5	CH1 UP_DW PL HP SENS (CH1 Up/Down Plate HP Sensor)	PS15	Sensor that detects the home position of the up/down plate (on which film is placed)
6	CH1 TRAY SENS (CH1 Tray Sensor)	PS16	Sensor that detects the presence or absence of the tray
7	RIGHT COVER SENS (Right Cover Sensor)	PS8	Sensor that detects the opening or closing of the right cover
9	POS_ REG FILM SENS (Film Detection Sensor)	PS1	Transport sensor in the justification unit
10	V-SYNC SENS (V-SYNC Sensor)	PS2	Transport sensor in the sub scan unit
11	SUBSCAN NIP HP SENS (Sub Scan Nip HP Sensor)	PS3	Sensor that detects the home position of the nip in the sub scan unit.
12	SUBSCAN ENT SENS (Sub Scan Entrance Sensor)	PS4	Transport sensor in the sub scan unit
13	FILTER SENS (Deodorant Filter Detection Sensor)	PS5	Sensor that detects the presence or absence of the deodorant filter
14	DENSITO ENT SENS (Densitometer Entrance Sensor)	PS6	Transport sensor at the densitometer inlet
15	FRONT COVER SENS (Front Cover Sensor)	PS7	Sensor that detects the opening or closing of the front cover
17	CH2 PICKUP HP SENS (CH2 Pickup HP Sensor)	PS18	Pickup roller home position sensor
18	CH2 FILM PICK SENS (CH2 FILM Pick Sensor)	PS19	Sensor that detects the height of film (pickup position)
19	CH2 BAG DETECT SENS (CH2 Bag Detect Sensor)	PS20	Sensor that detects the presence or absence of the barrier bag
20	SUPPLY EXIT SENS (Supply Exit Sensor)	PS21	Transport sensor at the CH2 supply exit
21	CH2 UP_DW PL HP SENS (CH2 Up/Down Plate HP Sensor)	PS24	Sensor that detects the home position of the up/down plate (on which film is placed)
22	CH2 TRAY SENS (CH2 Tray Sensor)	PS22	Sensor that detects the presence or absence of the tray
24	CH2 SUP_NIP HP SENS (CH2 Nip Opening/Closing HP Sensor)	PS25	Sensor that detects the home position of the nip in the CH2 supply
57	CTL COOL FAN MON (Control Cool FAN Monitor1)	MN_MON1	Sensor that detects rotation of the cooling fan in the control unit
59	PW_SUP COOL FAN MON (Power Supply Cooling FAN Monitor)	FAN_LD	Sensor that detects rotation of the cooling fan in the power supply unit

No.	Name	Symbol	Details
65	OP_SW1 (calibration) (Operation SW1(calibration SW))	SW1	Operation panel switch
66	OP_SW2 (test print) (Operation SW2 (test print SW))	SW2	Operation panel switch
67	OP_SW3 (open/enter) (Operation SW3 (open/enter SW))	SW3	Operation panel switch
68	OP_SW4 (reset/cancel) (Operation SW1 (reset/cancel SW))	SW4	Operation panel switch
73	SUPPLY COOL FAN MON (Supply Cooling FAN Monitor)	H_MON	Sensor that detects rotation of the supply cooling fan
75	INSULATION FAN MON (Insulation Unit FAN Monitor)	DN_MON	Sensor that detects rotation of the fan in the insulation unit
76	DEODORANT FAN MON (Deodorant FAN Monitor)	DS_MON	Sensor that detects rotation of the deodorant fan

Input port

No.	Name	Symbol	Details
81	DIP-SW_1	DIP_SW1	DIP switch on the MEC Board
82	DIP-SW_2	DIP_SW2	DIP switch on the MEC Board
83	DIP-SW_3	DIP_SW3	DIP switch on the MEC Board
84	DIP-SW_4	DIP_SW4	DIP switch on the MEC Board
85	DIP-SW_5	DIP_SW5	DIP switch on the MEC Board
86	DIP-SW_6	DIP_SW6	DIP switch on the MEC Board
87	DIP-SW_7	DIP_SW7	DIP switch on the MEC Board
88	DIP-SW_8	DIP_SW8	DIP switch on the MEC Board

AD input

No.	Name	Symbol	Details
1	V1 MAIN SENS 1 (V1 Main Sensor 1)	TH1	Heat process temperature sensor
2	V1 MAIN SENS 2 (V1 Main Sensor 2)	TH2	Heat process temperature sensor
3	V2 SUB SENS F (V2 Sub Sensor F)	TH3	Heat process temperature sensor
4	V2 SUB SENS R (V2 Sub Sensor R)	TH4	Heat process temperature sensor
5	V2 MAIN SENS 1 (V2 Main Sensor 1)	TH5	Heat process temperature sensor
6	V2 MAIN SENS 2 (V2 Main Sensor 2)	TH6	Heat process temperature sensor
7	V3 SUB SENS F (V3 Sub Sensor F)	TH7	Heat process temperature sensor
8	V3 MAIN SENS (V3 Main Sensor)	TH8	Heat process temperature sensor
9	V3 SUB SENS R (V3 Sub Sensor R)	TH9	Heat process temperature sensor

No.	Name	Symbol	Details
10	V4 MAIN SENS 1 (V4 Main Sensor 1)	TH10	Heat process temperature sensor
11	V4 MAIN SENS 2 (V4 Main Sensor 2)	TH11	Heat process temperature sensor
12	DENSITOMETER VALUE (Densitometer)	DENS_VS	Densitometer readout value
13	IN_MACHINE TEMP SENS (In-Machine Temperature Sensor)	TH15	Heat process temperature sensor
14	V2 QC SENS (V2 QC Sensor)	TH12	Heat process temperature sensor
15	V4 QC SENS (V4 QC Sensor)	TH13	Heat process temperature sensor
16	V5 QC SENS (V5 QC Sensor)	TH14	Heat process temperature sensor

16.10 IMAGER PRINT I/O TEST

This is used to measure the laser intensity of the main scan unit.

This section describes the procedure for displaying the “PRINT I/O TEST” window.

1 Connect the service PC to the facility’s network with reference to “16.2 Setting up Network (Page 16-3)”.

2 Refer to “16.3 How to Start the MainteTool (Page 16-9)” and start the MainteTool.

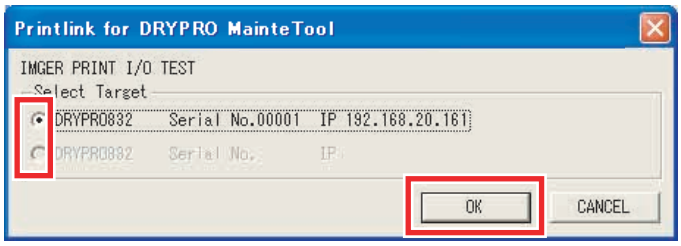
The MainteTool menu window appears.

3 Click the [IMAGER PRINT I/O TEST] button.

The window in which you can select device for conducting an I/O test is displayed.

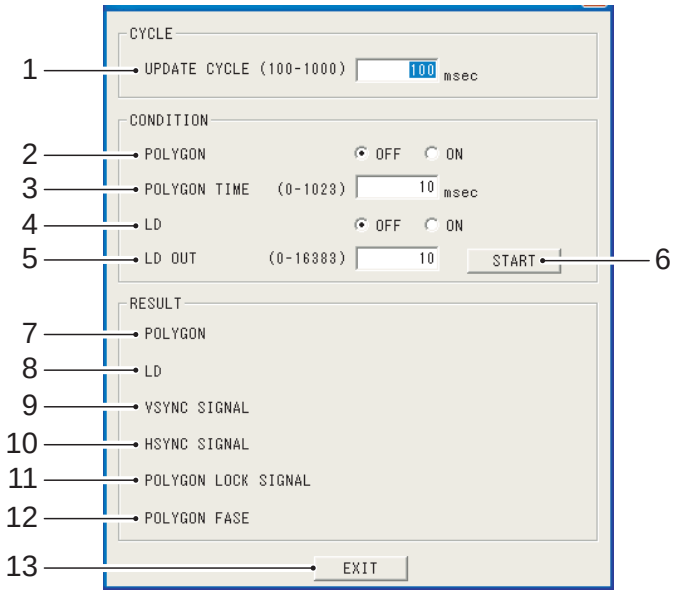
4 Place a checkmark in the box of the device for conducting I/O test under “Select Target”.

5 Click the [OK] button.



The “PRINT I/O TEST” window appears.

“PRINT I/O TEST” window



The “PRINT I/O TEST” window contains the following items:

No.	Setup Item	Description of Setting	
CYCLE			
1	UPDATE CYCLE	Set the timing at which the condition of the polygon motor and laser diode is checked.	
CONDITION			
2	POLYGON	Set the rotation condition of the polygon motor.	
		ON	Set the rotation of the polygon motor to ON.
		OFF	Set the rotation of the polygon motor to OFF.
3	POLYGON TIME	Set the rotation time of the polygon motor. Setting range: 0 - 99	
4	LD	Set the emitting state of the polygon motor.	
		ON	Set emission of the polygon motor to ON.
		OFF	Set emission of the polygon motor to OFF.
5	LD OUT	Set the light intensity to be output.	
6	[START] button	Starts operation of the polygon motor and laser diode as set.	
RESULT			
7	POLYGON	Displays the operating state of the polygon motor.	
8	LD	Displays the operating state of the laser diode.	
9	VSYNC SIGNAL	Displays the state of the V-Sync signal.	
10	HSYNC SIGNAL	Displays the state of the H-Sync signal.	
11	POLYGON LOCK SIGNAL	Displays the state of the POLYGON LOCK signal.	
12	POLYGON FASE	Displays the state of the face detection signal.	
13	[EXIT] button	Close the “PRINT I/O TEST” to return to menu.	

Next proceed to “16.10.1 Measuring Laser Beam Intensity (Page 16-51)”and measure laser beam intensity.

16.10.1 Measuring Laser Beam Intensity

Measure the laser intensity of the main scan unit, using the optical power meter.

Perform the measurement if a defect is suspected in the exposure unit or there is a problem in the image data.

> **Warning** If you handle the display screen with the exterior cover removed from DRYPRO 832, the outside of the machine may be radiated with laser. Direct exposure to laser beam could cause blindness.
>
> Be sure to check that there is no one around and wear laser goggles before starting work.

> **Note** The buzzer sounds continuously to warn during emission of laser.

Work outline

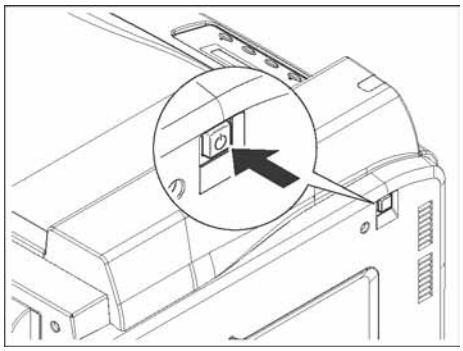
The number of personnel and the estimated work hours required to measure the laser beam intensity is as follows:

Number of Personnel	Work Hours
1	20 minutes each

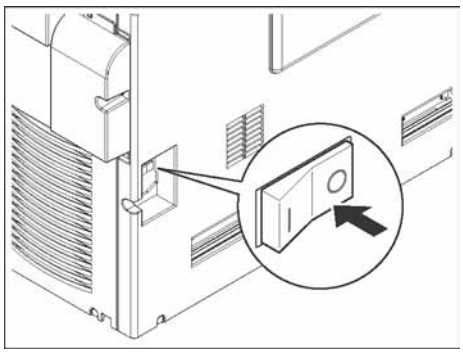
Requirements

The procedure for measuring laser beam intensity requires the following tools:

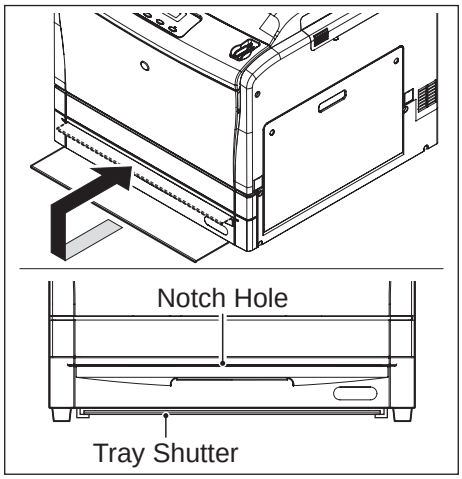
No.	Tools	No.	Tools
1	Various types of screwdrivers	2	Tray (container for screws and parts removed)
3	Laser goggles	4	Optical power meter
5	IR card		



1 Press and hold the operation switch for about 1 second.



2 Turn the main power supply OFF.



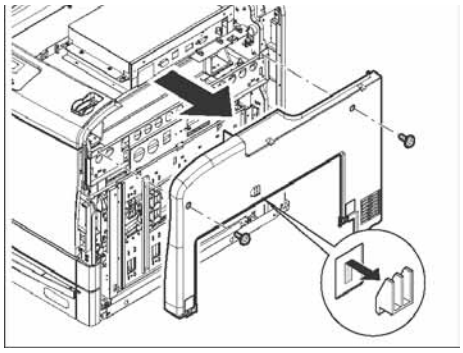
3 Pull the tray shutter out of the lower part of the supply tray.

4 Insert the tray shutter into the slot in the upper part of the supply tray with the tray shutter's UP mark on the top surface toward you.

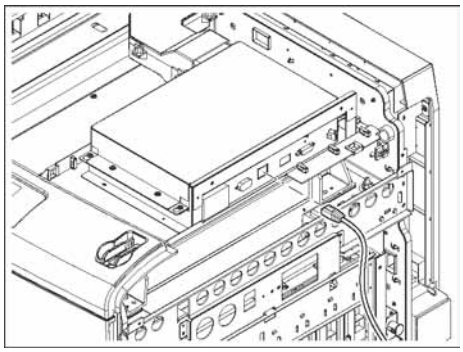
Inserting the tray shutter as far as it will go unlocks and causes the supply tray to pop out several centimeters.

Caution

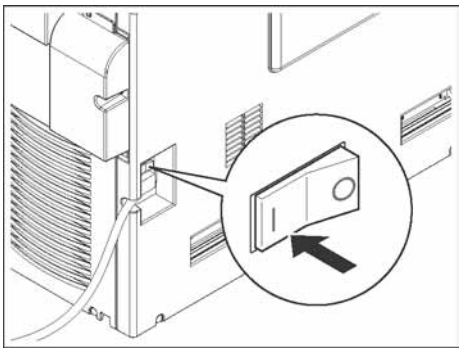
- When replacing loading parts, be sure to replace with the tray shutter attached. If some of the film remains on the tray, the film may be exposed.
- Take sufficient care when handling the tray shutter, as it may be impossible to insert if it becomes deformed due to rough handling.
- If you feel any resistance when inserting the tray shutter, stop the procedure and refer to "17.1.7 Pickup malfunction trouble (Page 17-6)" to fix the problem.



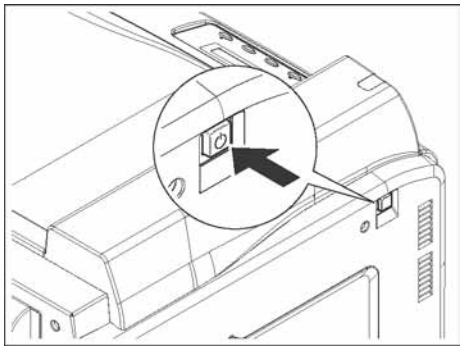
5 Remove the right cover, lower right cover, LAN cover, film ejection tray, connector cover, and the upper right cover with reference to "■ Removal Procedure " in "3.3.3 Removing/Installing Upper Right Cover (Page 3-12)".



6 Connect the LAN cable.



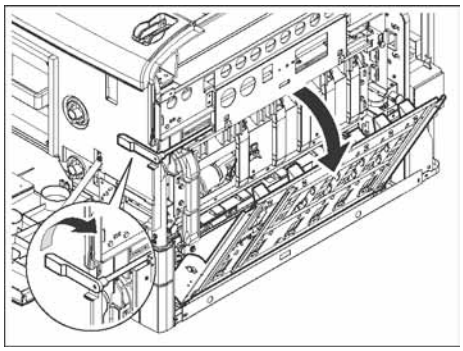
7 Turn the main power supply ON.



8 Press and hold the operation switch for about 1 second.

Initialize and warm-up processes start.

> **Note** An error that indicates the supply tray is open, however, continue to work.

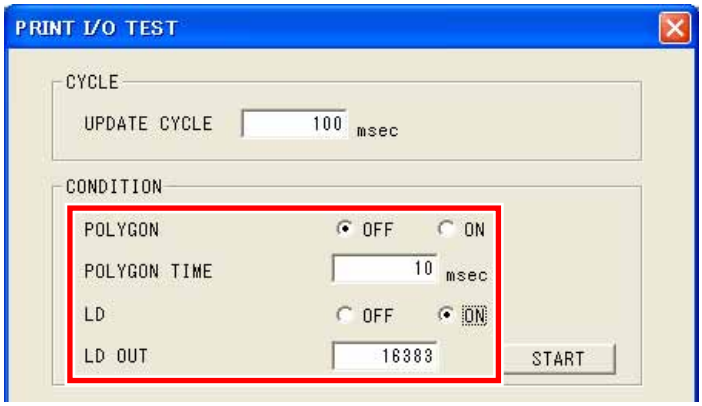


9 Open the external guide unit assembly with reference to "■ How to open the right cover " in "3.2.2 Opening/Closing Right Cover (Page 3-5)".

10 Display the "PRINT I/O TEST" window with reference to "16.10 IMAGER PRINT I/O TEST (Page 16-49)".

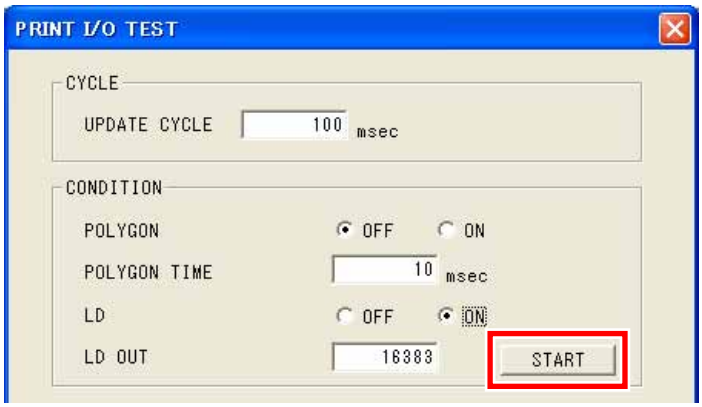
11 Set "CONDITION" to the following values.

Item	Setting
POLYGON	OFF
POLYGON TIME	10
LD	ON
LD OUT	16383



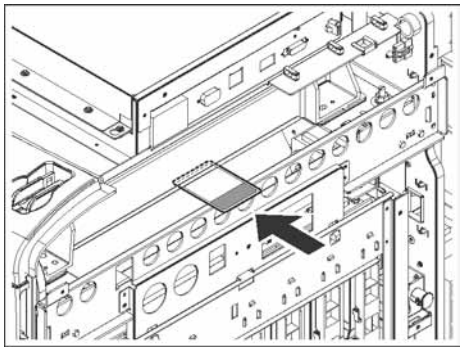
> **Warning** Laser beam is emitted in the next operation. Be sure to wear laser goggles.
> Make sure there is no one around again.

12 Click the [START] button.



The laser diode is emitted and the laser beam is radiated

> **Note** At this moment, the polygon motor is not rotating. So the laser beam is radiated to one spot somewhere within the laser scanning range.

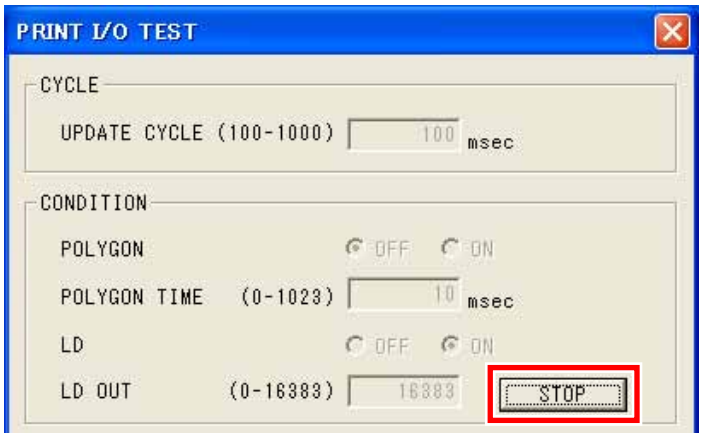


13 Insert the IR card in the roller in the sub scan unit and search the laser light spot.

Search for the position where a red light spot is visible while moving the IR card in a lateral direction.

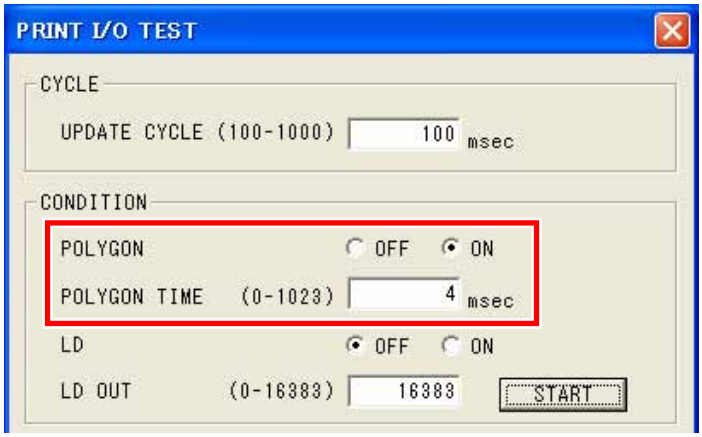
- If the laser light spot is near the center of the scanning range, go to step 18.
- If the laser light spot is not near the center of the scanning range or the laser light spot cannot be found, go to step 14.

14 Click the [STOP] button in the “PRINT I/O TEST” window.



The laser diode turns off and the laser radiation disappears.

15 Turn “POLYGON” ON under “CONDITION” and enter a value of 1 - 4 in the “POLYGON TIME”.



Note

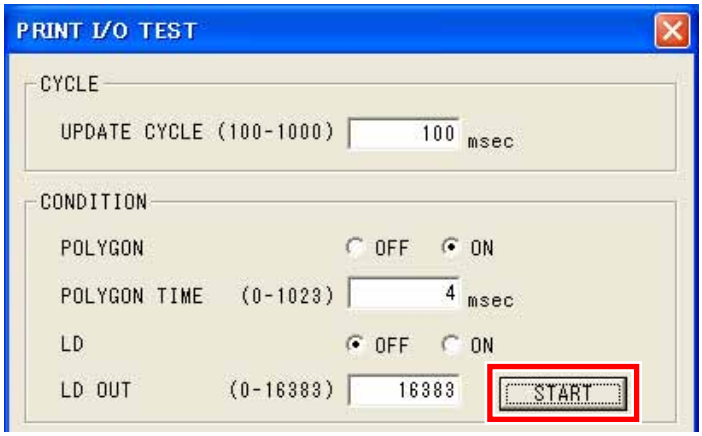
The light spot moves approximately 10 - 30 mm for the input value (msec) of 1- 4.

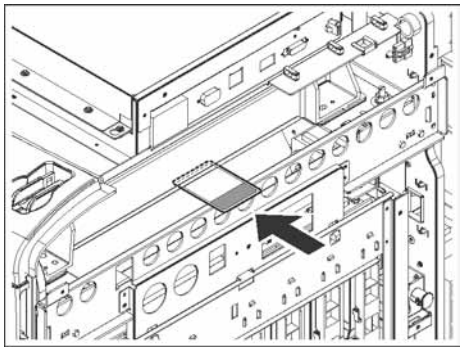
Warning

Laser beam is emitted in the next operation. Be sure to wear laser goggles.
Make sure there is no one around again.

16 Click the [START] button.

The polygon motor rotates for the time (msec) entered in step 15 and the light spot moves.
The laser diode is emitted and the laser beam is radiated.



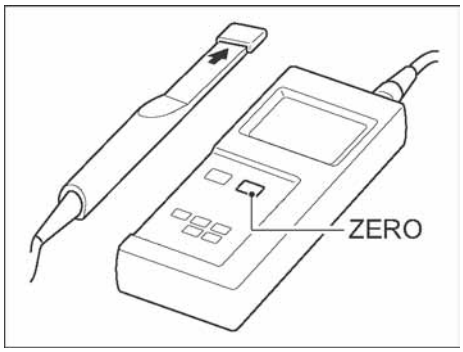


17 Insert the IR card in the roller in the sub scan unit and search for the laser light spot.

Search for the position where a red light spot is visible while moving the IR card in a lateral direction.

Note

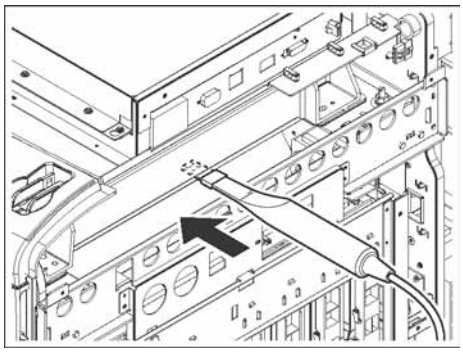
Repeat the steps in step 14 to step 17 until the light spot is found or it is moved near the center of the scanning range



18 Cover the probe of the optical power meter and press the [ZERO] button.

The zero point of the optical power meter is adjusted.

Adjust the measurement wavelength of the optical wavelength to 784 nm.



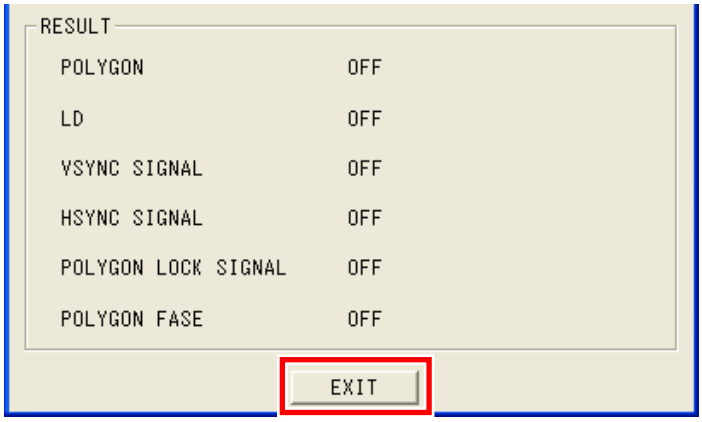
19 Hold the probe of the optical power meter over the position of the light spot and measure the laser beam intensity.

> **Caution** When holding the probe of the optical power meter over the light spot, slightly tilt the probe surface to the optical axis.
>
> If you hold the probe perpendicular to the optical axis, the laser beam reflected off the probe may bounce back to the exposure unit and cause unstable emission of the laser diode.

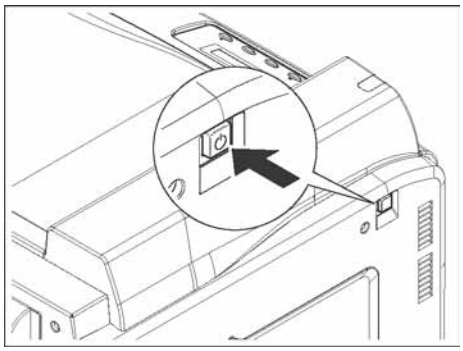
Verify that the laser beam intensity is 35mW or more.

- If the laser beam intensity is less than 35mW, replace the exposure unit with reference to "Chapter 8 Replacing Exposure Unit (Page 8-1)".

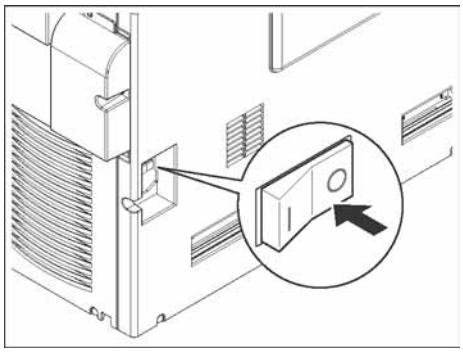
20 Click the [EXIT] button.



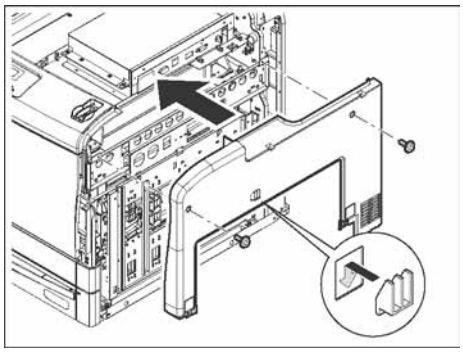
The "PRINT I/O TEST" window is closed. Then you will return to the maintenance menu window.



21 Press and hold the operation switch for about 1 second.



22 Turn the main power supply OFF.



23 Install the upper right cover, connector cover, film ejection tray, LAN cover, lower right cover, and right cover with reference to "■ Installation Procedure (Page 3-15)" in "3.3.3 Removing/ Installing Upper Right Cover".

This is the end of the process of verifying the laser data intensity.

Chapter 17 Troubleshooting

This section describes solutions for when errors occur.

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17.1 Solutions When Trouble Occurs

If trouble occurs in the DRYPRO 832 main unit, use the solutions shown in the table below.

17.1.1 The DRYPRO 832 main unit will not start

Phenomenon	Parts to check	Cause	Solution
When the power source breaker is turned ON, it returns to OFF	The power source breaker protection has activated	Short circuit in the AC line	Disconnect the power cable, then check the conductance between TP1-TP2, TP1-TP5, TP2-TP5. If there is no conductance, replace the power source breaker. If there is conductance, replace the noise filter, multiple power supply, power Assy, noise filter Assy, and CB1 Assy.
Even if the main power supply is on and the operation switch is pressed, the LCD on the operation panel is not displayed	Bad connection	A power cable (on the equipment or wall socket) is not plugged in	Visually inspect how well the main power supply side and equipment side cables are inserted.
	Broken wire in the power cable	The power cable has a broken wire	Remove the power cable from the equipment, and check the power cable conductance with a tester. Replace the power cable if a broken wire is found.
	Power is not being supplied from the main power supply or UPS	There is a fault on the main power supply side or UPS	Check the output voltage of the main power supply or UPS with a tester. If there is no voltage output from the main power supply or UPS, request repairs from the facility owner.
	STBY 5V is not being output	Power fault or MEC fault	Measure the multi power ACN5 5 pins as + and 6 pins as - with a tester, and check that 5V is being output. If 5V is not output, replace the multi power and MEC power Assy. If this does not resolve the problem, replace the MEC board.
	Defective operation of the operation switch	Operation switch fault, or broken wire in the cable	Check the connection of the densitometer relay Assy, and if there are no problems, remove MCN13 from the MEC board, and check the conductance between the MCN13 No.1 pin-No.2 pin while the operation switch is pressed down. If there is no conductance, replace the operation switch board and densitometer relay Assy.
	Defective operation of LCD board	Faulty LCD board, broken wire in the cable, disconnected connector, short circuit	Check the connection of the LCD relay Assy, and if there are no problems, replace the LCD board and LCD relay Assy.

17.1.2 The DRYPRO 832 stops during startup

Phenomenon	Parts to check	Cause	Solution
The initial window stops with the “Welcome to DRY PRO” display	Communication error between the main board and MEC board	• Main board fault or MEC board fault • Main communication Assy connector disconnected or broken wire	Check the connection of the main communication Assy, and if there are no problems, replace the main board, MEC board, and main communication Assy.
	Insufficient voltage for main board power supply	• Main board fault or multiple power fault • Exposure power supply relay Assy 1 connector disconnected or broken wire	Check the exposure power supply relay Assy1 connection, and if there are no problems, replace the main board, multiple power, and exposure power supply relay Assy1.
	Compact flash (CF) malfunction	• Compact flash (CF) fault • Compact flash (CF) incorrect insertion	Check that the compact flash (CF) is inserted correctly, and if it is inserted correctly, replace the compact flash (CF). If this does not resolve the problem, replace the main board.
	Main board LED-2 lit	• Malfunction occurred in the boot program • Malfunction occurred in the Linux kernel • Driver failed to start	Replace the main board.
	Main board LED-3 lit	Disk mount failed	Replace the compact flash (CF).
Regular window “Warming up” is not displayed	Stops on the message “Checking system”	Software version mismatch, or application startup error due to OS damage	• Check the Error.log of the date the error occurred. • Update the software version. If this does not resolve the problem, replace the compact flash (CF).
	Stops on the message “ Failed to startup shared memory process”		
	Stops on the message “ Failed to startup programs waiting for shared memory”		
	Stops on the message “ Failed to startup power management process”	Error occurred on the power supply driver, or application startup error occurred due to OS damage	
	Stops on the message “An error occurred during the update process”	Software version mismatch, or application startup error due to OS damage	
	Stops on the message “Downloading print software”	Failed to access the print board due to driver or hardware related cause	• Check the Error.log of the date the error occurred. • Replace the print engine board or the control box.
	Stops on the message “Download MEC software”	Failed to access the MEC board	Check the connection of the communication wire (RS-232C) between the MEC and main board, or replace it. If this does not resolve the problem, update the software, or replace the CF. If this does not resolve the problem, replace the MEC board.
	Stops on the message “Checking operation”	Software version mismatch, or application startup error due to OS damage	Update the software version. If this does not resolve the problem, replace the compact flash (CF).
The operating panel LCD is displayed, but the status lamp does not light	Defective operation of the status lamp	• Status lamp or MEC board failure • Broken wire, short circuit, or disconnected connector in LCD relay Assy	Check the connection of the LCD relay Assy, and if there are no problems, replace the status lamp and LCD relay Assy. If this does not resolve the problem, replace the MEC board.

17.1.3 An error message is displayed

If an error message is displayed, refer to "17.2.1 Operating panel display and solutions (Page 17-14)" and solve the problem.

17.1.4 Film Jam

For solutions for film jams, see "4.4 Film Jam Solutions" in the operation manual.

17.1.5 Trouble while using DRYPRO 832

Phenomenon	Parts to check	Cause	Solution
An error message is displayed on the server PC during upgrade	Communication condition between DRYPRO and server PC	Communication fault between DRYPRO and server PC	Check the connection of the LAN cable between the DRYPRO 832 and the server PC, restart the server PC, and perform upgrade again.
A message for F error is displayed on the DRYPRO during upgrade	Communication condition between DRYPRO and server PC	Communication fault between DRYPRO and server PC	Check the connection of the LAN cable between the DRYPRO 832 and the server PC, and restart the DRYPRO 832 and the server PC.
Print film timestamp is incorrect	Server PC date and time	Server PC date and time are incorrect	Correct the server PC date and time.
Shutdown was executed even though an operation switch was not pressed	Power supply malfunction from the UPS is recorded in the log	UPS detected a power cut	Check for the presence of a power cut from the power supply side.
Power supply stopped even though the operation switch was not pressed	UPS battery malfunction	UPS detected a power cut when the UPS battery charge was low. Or, the UPS battery has reached its regular replacement time (lifespan)	Refer to the UPS operation manual, and either recharge or replace the battery.
	Power supply malfunction	Disconnected power cable	Check that the power cable is connected.
		Power cut	After power supply has resumed, switch the power on.
Control panel does not accept switch input	Operation panel switch input malfunction	• LCD board failure or MEC board failure • Broken wire, short circuit, or disconnected connector in LCD relay Assy	Check the connection of the LCD relay Assy, and if there are no problems, replace the LCD board, MEC board, and LCD relay Assy.
Cannot connect on the network	Use the status display in DRYPRO 832 UtilityTool user window to check the IP address (only when the software version of DRYPRO 832 is V1.02 or later)	DRYPRO 832 is connected to other Printlink5-IN	Check the connection and setup of the network.

Phenomenon	Parts to check	Cause	Solution
Cannot connect on the network	Use the ping command from a maintenance PC to check the network status	LAN cable disconnected	Check that the LAN cable is connected.
		Depending on the type of switching hub, the board may be remembering the previous MAC connection, and may therefore not accept this product	Switch off the switching hub power, then restart the hub. The problem may not be fixed by only disconnecting and reconnecting the LAN cable.
		Depending on the type of switching hub, the connection may not be established with auto-negotiation	Set the board settings for the switching hub that connects this product to 100Base/TX, FDX or 1000Base/T.
	LAN board LED does not flash	The main board LAN function has a fault	Remove the installation location base, and if a connection cannot be established between a hand-held HUB and the PC, replace the main board.
	A message “PC not connected” is displayed on the DRYPRO 832	Communication fault between DRYPRO and server PC	• Check that power supply of the server PC is ON. • Check the connection of the LAN cable. • Restart the DRYPRO 832 and the server PC.

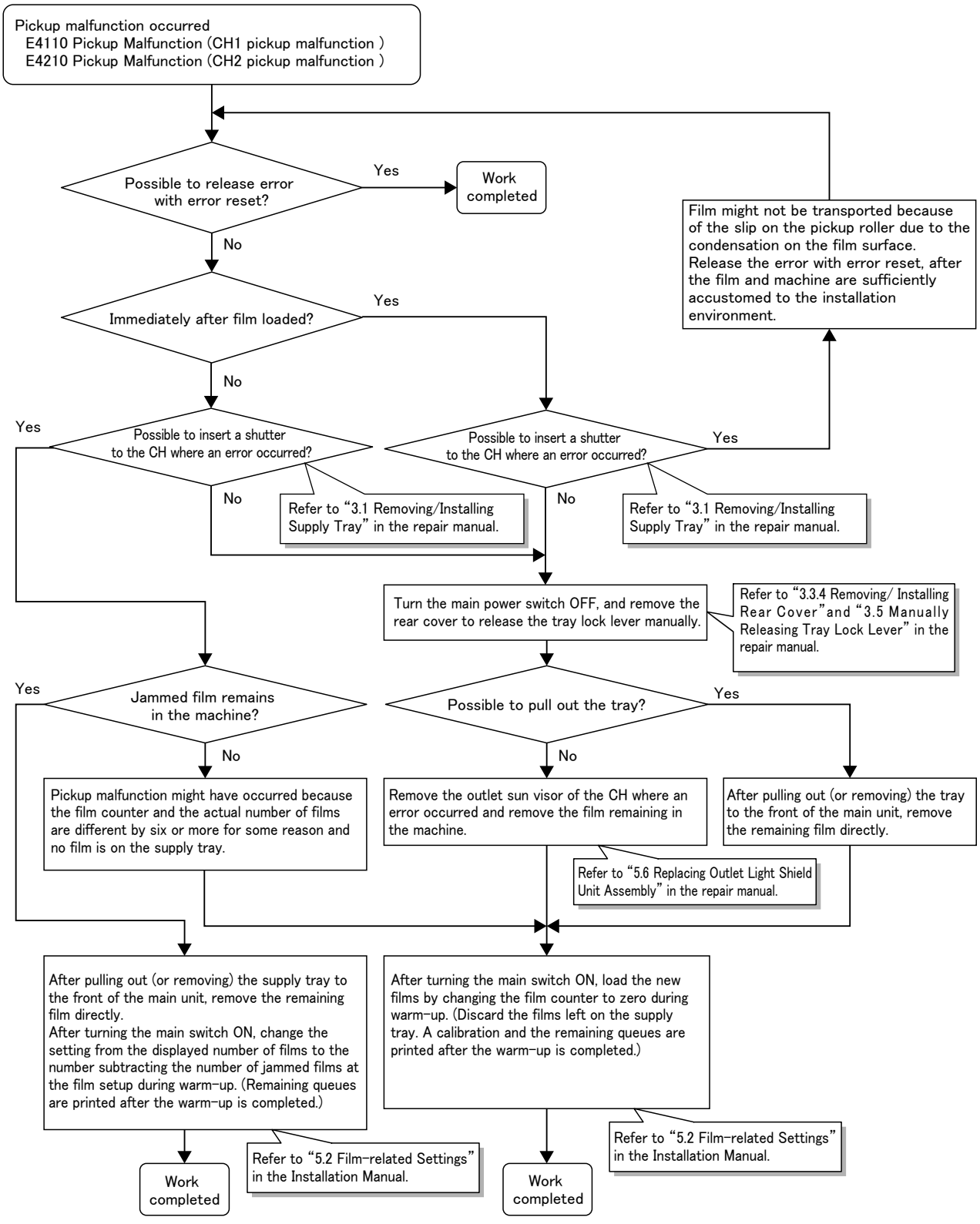
17.1.6 Does not exit (shutdown)

Phenomenon	Parts to check	Cause	Solution
The operation switch was pressed and the status LED has gone out, but the DRYPRO does not shut down	Communication error between the main board and MEC board	• Main board fault or MEC board fault • Main communication Assy connector disconnected or broken wire	Press and hold the operation switch once again for more than 10 seconds. If the DRYPRO does shut down, check the connection of the main communication Assy, and if there are no problems, replace the main board, MEC board, and main communication Assy. If the DRYPRO does not shut down, there is a communication error between the MEC board and multiple power supply. Switch the main power supply OFF, and follow the “Communication error between MEC board and multiple power supply” solution below. (When a forced shutdown can be performed)
	Communication error between MEC board and multiple power supply	• MEC board fault or multiple power supply fault • Short circuit in remote signal Assy	Replace the MEC board, multiple power supply, and remote signal Assy. (When a forced shutdown cannot be performed)

17.1.7 Pickup malfunction trouble

If a pickup malfunction occurs, follow the procedure below to solve the problem.

> **Caution**
> - When performing this work, always make sure the power supply is OFF, and insert a tray shutter.
> - When inserting the tray shutter, stop immediately if you feel any resistance.

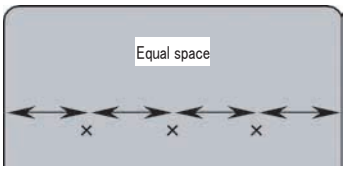


17.1.8 Print Image Trouble

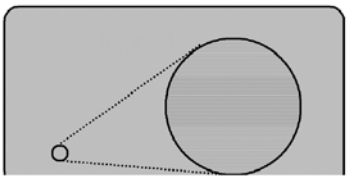
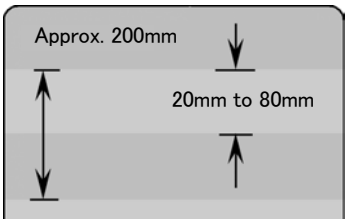
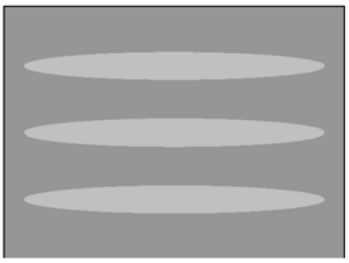
Trouble related to print images can be broadly defined into the following categories.
Follow the solutions for each item to solve the problems.

- Density fluctuation trouble
  See "■ Density fluctuation trouble (Page 17-7)".
- Density unevenness trouble
  See "■ Density unevenness trouble (Page 17-8)".
- Image malfunction trouble
  See "■ Image malfunction trouble (Page 17-11)".
- Print malfunction trouble
  See "■ Print malfunction trouble (Page 17-12)".
- Curl trouble
  See "■ Curl trouble (Page 17-13)".
- Scratched film trouble
  See "■ Scratched film trouble (Page 17-13)".
- Contaminated film trouble
  See "■ Contaminated film trouble (Page 17-13)".

■ Density fluctuation trouble

Phenomenon	Cause	Solution
Image Horizontal Temperature Difference Output a FLAT pattern (1.5D recommended) and measure the density at the x locations below (3 locations). A temperature difference greater than 0.15D (estimate) is abnormal 	1. Insufficient adjustment of shading correction at shipment 2. Film has its own density distribution 3. Dirty optical parts 4. Heat process unit temperature not uniform, temperature setting fault	Even if the film is the cause, the horizontal density difference for films in the same pack can be suppressed by performing shading correction.
Cannot obtain density linearity (density malfunction) 1. No malfunction in the image density, but differences occur in measured density values 2. Density fluctuation occurring within the field, and density fluctuation is occurring while the film is transported in the machine 3. Even if calibration is performed, differences in density linearity are repeated 4. Density fluctuation where a characteristic curve follows a steady value parallel translation 5. Density malfunction accompanied by tone differences 6. Large increase in density during continued processing	1. Malfunction in measuring densitometer 2. Change in film sensitivity 3. LUT malfunction: LUT setting error 4. Exposure amount malfunction for optical system 5. Developing temperature malfunction 6. Insufficient cooling, developing temperature malfunction	1. Check by re-measuring using a calibrated densitometer. 2. Check the guarantee period of the film, and replace the film if it is old. 3. Check and correct the LUT setting value. 4. Perform shading correction and pitch unevenness correction. 5. Check the HPRO temperature settings. 6. Check the operation of the cooling section fan and the HPRO temperature settings.

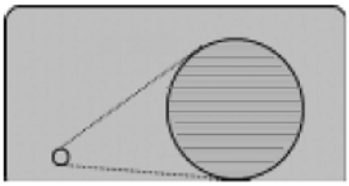
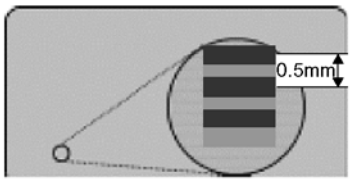
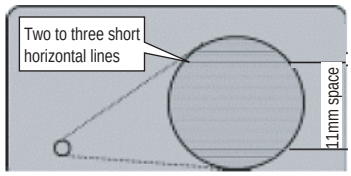
■ Density unevenness trouble

Phenomenon	Cause	Solution
Pitch Unevenness Output a FLAT pattern (1.5D recommended) and check with a magnifying glass. • Phenomenon 1,2 A large amount of unevenness appears at 157 μ m intervals • Phenomenon 3,4 Unevenness occurs at other intervals 	1. Insufficient final stage pitch unevenness correction at shipment 2. Correction value was reset/discarded 3. Vibration in feed unit 4. Sub Scan transport motor malfunction	1. Perform unevenness correction 2. Perform unevenness correction 3. Replace the feed unit 4. Replace the Sub Scan transport motor
Belt-Like Density Unevenness Density is reduced (0.01D~0.02D) in belt-like shapes in certain areas 	Faulty grounding for the exposure unit	Tighten the earth wire fixing screws (2 screws) that connect between the Sub Scan unit and DRYPRO frame.
Unevenness 39mm from top Check with flat pattern	Faulty feed outlet guide position	Replace feed unit
Top edge insert unevenness (23mm from top) Check with flat pattern	Faulty position of exposure guide	Replace feed unit
73mm pitch unevenness Check with flat pattern	Dirt inside tensioner collar bearing Replace feed unit and Sub scan unit	Replace feed unit
Unevenness 34mm from bottom edge Check with flat pattern	Faulty feed outlet guide position	Replace feed unit
11mm pitch unevenness (occurs in 140mm space from top edge) Check with flat pattern	Feed unit, motor axle dirty	Clean motor axle
Belt-like density unevenness Density reductions (0.01D~0.02D) occur at approximately 200mm intervals, in bands of 20mm~60mm	Faulty grounding for the exposure unit	Re-tighten the earth wire screws (2 screws) that connect between the chassis of the feed unit and DRYPRO.
38mm pitch horizontal stage unevenness 	1. Developing temperature malfunction 2. Rotation malfunction of opposite roller 3. Heat process guide malfunction	1. Check HPRO temperature settings 1. Check operation of cooling section fan 2. Replace HPRO unit 3. Replace HPRO unit

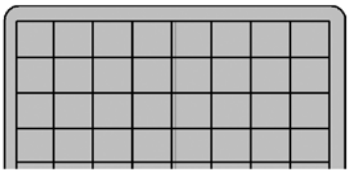
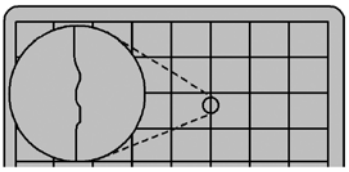
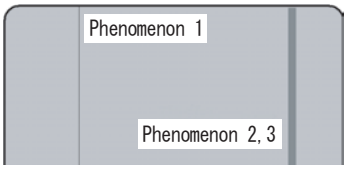
Phenomenon	Cause	Solution
Top edge falcate low density unevenness 	1. Developing temperature malfunction 2. Film deterioration 3. HPRO guide malfunction	1. Check HPRO temperature settings 1. Check operation of the cooling section fan 2. Check the film usage limit, replace old film with new film, and recheck. 3. Replace HPRO unit
Low temperature unevenness extended to radiation condition in transporting direction 	1. Developing temperature malfunction 2. Heat process guide malfunction	1. Check HPRO temperature settings 1. Check operation of cooling section fan 2. Replace HPRO unit
Pale horizontal line unevenness 45mm from bottom edge	HPRO malfunction	Replace HPRO unit
Pale horizontal line unevenness 110mm from bottom edge	HPRO malfunction	Replace HPRO unit
Low density unevenness at bottom edge section 	HPRO guide malfunction	Replace HPRO unit
Low density unevenness at side edge section	1. Uneven HPRO temperature 1. Developing temperature malfunction 2. Film deterioration 3. HPRO malfunction	1. Check HPRO temperature settings 1. Check operation of the cooling section fan 2. Check the film usage limit, replace old film with new film, and recheck. 3. Replace HPRO unit
Insertion unevenness 50mm from top edge	Bad installation of heat process inlet lower queue guide	• Check installation of the heat process inlet lower queue guide. • Replace HPRO unit

Judgment standards for polygon pitch unevenness and feed unevenness

Division procedure：Output a FLAT pattern (approx. 1.5D), observe with a magnifying glass, and divide by the intervals between unevenness.

Unevenness	Phenomenon	Solution
Polygon pitch unevenness	0.157mm interval unevenness 	Correction
Feed unevenness	0.5mm interval unevenness  11mm interval unevenness 	• Replace feed unit moderation belt • Replace feed unit propagation belt • Replace feed unit drive motor pulley

■ Image malfunction trouble

Phenomenon	Cause	Solution
Bad extraction of fine white lines/ bad fine detail (product pattern) Output a PRODUCT pattern (3.0D), measure the average density of the central fine white lines (thicker of the fine white lines). Malfunction occurs if they are over 2.0D, or if the fine white lines are clearly dark or overlapping	1. Dirty optics 2. Amount of radiation too strong 3. Beam diameter is large/worsening modulation response 4. Heat process unit temperature malfunction	1. Replace exposure unit 2. Check the laser beam intensity, and if the value is higher than the standard value, replace the exposure unit. (Above 55mW as an estimate) 3. Replace exposure unit 4. Check the setting temperature of the heat process unit, and if there is no problem with the setting value, replace the HPRO unit.
Near center ghost When a FLAME pattern is output (approx.1.5D), and a thin vertical line can be seen just next to the center vertical line 	Optical malfunction	Replace the exposure unit
Wavering vertical lines Output a FLAME pattern (approx. 1.5D), and the wavering of the vertical lines is marked compared to the right side vertical lines (more than 30 μ m) 	Function failure of frequency modulation, or exposure unit (polygon rotation) failure	Check the setting values in 1~6 of "Frequency modulation data" in the "PRODUCT SETUP" window of SERVICE INFO. If there are no problems, replace the exposure unit.
Vertical black lines When a FLAT pattern (approx. 1.5D) is output, the occurrence of vertical black lines is unpredictable 	• Phenomenon 1 Dust accumulation or scratch (approx. 0.5mm thin black line) on the feed guide board • Phenomenon 2 Distortion of optical parts, fogging by scattered light • Phenomenon 3 Lines on the film	• Check the feed unit guide board for foreign particles or scratches (that shine with light). • Check whether the image position has deviated either to the right or left. If it has deviated, center the image again correctly, and check the vertical lines again. If this does not remove the vertical lines, replace the exposure unit. • Use film from a different lot, or load film in backwards, and check the position in which the problem is occurring.
Vertical white lines When a FLAT pattern (approx. 1.5D) is output, the occurrence of vertical white lines is unpredictable 	1. Dust or dirt on optical parts 2. Lines on the film itself 3. Optical path is blocked 4. Scratch or protrusion on the heat process guide surface	1. Check whether there is dirt or foreign objects on the dustproof glass on the back of the exposure unit, and if there are no problems with the surface, replace the exposure unit. 2. Check using a different lot of film. 3. Check whether there is nothing that could interrupt the exposure position with a beam. 4. Replace the heat process unit
Black lines occur at 63mm intervals in the horizontal direction	Dirty transport rollers in the feed unit, scratch on the roller surface	Clean the transport rollers in the feed unit and check for scratches.
White spots occur	1. Dust on the film 2. Condensation on the film	1. Clean inside the machine 2. Replace the film

Phenomenon	Cause	Solution
Horizontal line shaped white dots that appear clustered together occur	Accumulation of dirt on the surface of the transport rollers has transferred onto the film	Roller cleaning in the feed unit

■ Print malfunction trouble

Phenomenon	Cause	Solution
The Main Scan OFFSET image size does not match	1. Polygon motor rotation error in the exposure unit 2. Distance between exposure unit and film surface is incorrect	1. Check the connection of the connector section. 2. Check that the exposure unit is installed correctly. 2.Check whether the numerical values shown on the label attached to the exposure unit match the setting values in the "PRODUCT SETUP" window in SERVICE INFO. If there are no problems with either, replace the exposure unit.
	If there is insufficient accuracy of the image horizontal dimension specified in Requested image size, it is possible to fine tune the settings	Refer to the "PRODUCT SETUP" window in SERVICE INFO, and adjust the setting values. Example: For 300mm specification when the horizontal dimension is 303mm, set the "SIZE FINE TUNING (Requested image size)" to 99%.
The Sub Scan OFFSET image size does not match	Setting value mismatch	Refer to the "PRODUCT SETUP" window in SERVICE INFO, and adjust the setting values. Example: If the vertical dimension is 1% too large, set the "SIZE FINE TUNING (V direction)" to 99%.
Image Main Scan OFFSET has deviated	Setting value mismatch	Refer to the "PRODUCT SETUP" window in SERVICE INFO, and adjust the setting values in "HD OFFSET". Example: If the setting value is increased by 1, the image shifts 0.01mm to the right when looking at the exposure face with the transport direction at the top edge.
Image Sub Scan OFFSET has deviated	Setting value mismatch	Refer to the "PRODUCT SETUP" window in SERVICE INFO, and adjust the setting values in "VD OFFSET". Example: If the setting value is increased by 1, the image shifts 0.01mm downwards when looking at the exposure face with the transport direction at the top edge.
Calibration pattern does not print 1. Data not output from the print engine board (print I/O check implemented) 2. Polygon is not rotating (polygon lock is not ON), or the laser does not emit (laser intensity measurement)	1. Bad connection in the print engine board or the exposure I/F cable 2. Exposure unit malfunction, or bad connection with the exposure I/F cable	Check the connection (lock) of the exposure I/F cable. If this does not improve the problem, replace the exposure unit or exposure I/F cable.
Densitometer pattern does not print Calibration pattern can be printed	Cannot read the density correctly	Replace the densitometer.

Phenomenon	Cause	Solution
SMPTE test pattern does not print 1. Densitometer pattern can be printed, but it does not print if the setting is No Select 2. The densitometer pattern can be printed, but it does not print if the settings are Ch1~Ch4	1. Internal file error 2. Mistakes in the Dmax, Dmin settings, or mistakes in the LUT settings	1. Cold start, or switch the power supply OFF/ON. If this does not resolve the problem, update the software, or replace the compact flash (CF). 2. Set Dmax=3.00, Dmin=0.20, Lut=liner, and check the settings.
DICOM image does not printed 1. SMPTE pattern can be printed, but only the specified SCU cannot be printed (check the log for the occurrence date) 2. SMPTE pattern can be printed, but nothing is printed from all SCU (check the log of the occurrence date)	1. Malfunction in DICOM parameters or image 2. DICOM input process fail completed	1. Refer to the error code table, and check whether the DICOM pattern sent from the SCU is correct. 2. Cold start, or switch the power supply OFF/ON. If this does not resolve the problem, update the software, or replace the compact flash (CF).
Images is slanted The image is out of spec if it slants more than 1mm in the 17-inch direction for 356mm × 432mm size images.	1. Position regulation unit malfunction 2. Poor installation of the standard guide (pin) 3. Malfunction of separating prongs 4. Bad settings for the supply tray film size	1. Replace the position regulation unit 2. If only 2ch images slant, replace the outlet light shield unit assembly (1ch). If both 1ch and 2ch images slant, replace the standard guide of the position regulation unit. 3. Replace the separation prong section 4. Check the film size settings
QC pattern does not printed	Internal file malfunction	Switch the power supply OFF/ON. If this does not resolve the problem, update the software, or replace the compact flash (CF).
The QC pattern can be printed, but the DICOM image does not print	DICOM parameter or image malfunction	Switch the power supply OFF/ON. If this does not resolve the problem, update the software, or replace the compact flash (CF).

■ Curl trouble

Phenomenon	Cause	Solution
Curl The front and back of the film raise more than 25mm when attached to the light box	1. Cooling malfunction 2. HPRO guide malfunction	1. Check the operation of the cooling section fan 2. Replace HPRO unit

■ Scratched film trouble

Phenomenon	Cause	Solution
Transport direction scratches appear at set locations on the BC surface	1. Scratches or protrusions on the HPRO guide surface 2. Position regulation roller fault	1. Replace the HPRO unit 2. Clean or replace the position regulation roller
Transport direction scratches appear at random on the BC surface	1. Dust on the HPRO guide 2. Dust on the exposure guide	1. Print a number of sheets, and there is no problem if the scratches do not appear at the same place. 2. Clean the exposure guide
Scratch on the EC surface	1. Faulty rotation of the opposed roller 2. Peeling of HPRO rack insulating material	Replace HPRO rack

■ Contaminated film trouble

Phenomenon	Cause	Solution
Adherence of a lot of powdery white dirt, or many scrape marks	Transfer of dirt adhering to the opposing rollers	Clean the heat process unit

17.2 Error display and solutions

When an error occurs, an error message and the solution are displayed in the message display window of the operating panel.

The error message is also displayed inPrintlink5-IN.

17.2.1 Operating panel display and solutions

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	3000	HPRO Error	Error when 22 minutes, which is 2times stronger than normal startup 11 minutes (when not in POWER OFF MODE), passes	1. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 2. Check the connection between the H-DRVboard and mechanical control board 3. Check conductance of the power cable 4. Check voltage 5. Replace H-DRV board 6. Replace heat process unit 7. Replace mechanical control board 8. Replace the wire bundle between the H-DRVboard and mechanical control board
F	3001	HPRO Error	Check the sensor detection of wire malfunction signal for the heater every 0.1 seconds, and an error occurs if anomaly is detected	1. Check connection between mechanical control and HPRO unit 2. Replace HPRO unit 3. Replace mechanical control board 4. Replace wire bundle between mechanical control board and HPRO unit
E	3002	Temperature error	When the pre-heating C1 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3003	Temperature error	When the pre-heating C1 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3004	Temperature error	Irrespective of the status of the machine, check the temperature of preheat C1 every 1 seconds, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
F	3006	HPRO Error	The heater sensor A/D value has a fixed upper value	1. Replace HPRO unit 2. Replace mechanical control board 3. Replace wire bundle between mechanical control board and HPRO unit

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	3007	HPRO Error	Check the AD_ERR signal every 0.1 seconds, and an error occurs if an anomaly is detected	1. Replace HPRO unit 2. Replace mechanical control board 3. Replace wire bundle between mechanical control board and HPRO unit
F	3008	HPRO Error	Check the connector disconnect signal for the heater temperature sensor every 0.1 seconds, and an error occurs if an anomaly is detected	1. Check connection between mechanical control board and HPRO unit 2. Replace HPRO unit 3. Replace mechanical control board 4. Replace wire bundle between mechanical control board and HPRO unit
F	3009	HPRO Error	Check the sensor detection of wire malfunction signal for density correction every 0.1 seconds, and an error occurs if an anomaly is detected	
F	300B	HPRO Error	The density correction sensor A/Dvalue has a fixed upper value.	1. Replace HPRO unit 2. Replace mechanical control board 3. Replace wire bundle between mechanical control board and HPRO unit
E	3012	Temperature error	When the pre-heating C2 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3013	Temperature error	When the pre-heating C2 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3014	Temperature error	Irrespective of the status of the machine, check the temperature of preheat C2 every 1 seconds, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3022	Temperature error	When the heating temperature 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	
E	3023	Temperature error	When the heating temperature F 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	3024	Temperature error	Irrespective of the status of the machine, check the temperature of heating F every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3032	Temperature error	When the heating temperature C1 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	
E	3033	Temperature error	When the heating temperature C1 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3034	Temperature error	Irrespective of the status of the machine, check the temperature of heating C1 every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3042	Temperature error	When the heating temperature C2 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3043	Temperature error	When the heating temperature C2 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	3044	Temperature error	Irrespective of the status of the machine, check the temperature of heating C2 every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3052	Temperature error	When the heating temperature R 30 second moving average temperature is compared to 130°C an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	
E	3053	Temperature error	When the heating temperature R 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3054	Temperature error	Irrespective of the status of the machine, check the temperature of heating R every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3062	Temperature error	When the slit F temperature 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 10°C higher when Ready and 10°C higher when in PRINT.	
E	3063	Temperature error	When the slit F temperature 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 10°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3064	Temperature error	Irrespective of the status of the machine, check the temperature of slit F every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	3072	Temperature error	When the slit C temperature 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 10°C higher when Ready and 10°C higher when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3073	Temperature error	When the slit C temperature 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 10°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3074	Temperature error	Irrespective of the status of the machine, check the temperature of slit C every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3082	Temperature error	When the slit R temperature 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 10°C higher when Ready and 10°C higher when in PRINT.	
E	3083	Temperature error	When the slit R temperature 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 10°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3084	Temperature error	Irrespective of the status of the machine, check the temperature of slit R every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	3092	Temperature error	When the slow cool C1 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	3093	Temperature error	When the slow cool C1 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	3094	Temperature error	Irrespective of the status of the machine, check the temperature of slow cool C1 every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
E	30A2	Temperature error	When the slow cool C2 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	
E	30A3	Temperature error	When the slow cool C2 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
E	30A4	Temperature error	Irrespective of the status of the machine, check the temperature of slow cool C2 every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	30B2	Caution	When the heating inlet 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
C	30B3	Caution	When the heating inlet 30 second moving average temperature is compared to 130°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
C	30B4	Caution	Irrespective of the status of the machine, check the temperature of heating inlet every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
C	30C2	Caution	When the slow cool outlet 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	
C	30C3	Caution	When the slow cool outlet 30 second moving average temperature is compared to 100°C, an error occurs when the temperature is 5°C lower when Ready and 10°C lower when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check whether the short-circuit breaker (domestic) or circuit protector (domestic) is OFF 3. Check the connection between the H-DRVboard and mechanical control board 4. Check connection between mechanical control board and HPRO unit 5. Check conductance of the power cable 6. Check voltage 7. Replace H-DRV board 8. Replace heat process unit 9. Replace mechanical control board 10. Replace the wire bundle between the H-DRVboard and mechanical control board 11. Replace wire bundle between mechanical control board and HPRO unit
C	30C4	Caution	Irrespective of the status of the machine, check the temperature of cooling outlet every 1 second, and if the temperature is continually 147°C for 5 seconds, an error occurs	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	30D2	Temperature error	When the rapid cooling outlet 30 second moving average temperature is compared to 50°C, an error occurs when the temperature is 5°C higher when Ready and 10°C higher when in PRINT.	1. Check HPRO OFFSET and mechanical control offset 2. Check the connection between the H-DRVboard and mechanical control board 3. Check connection between mechanical control board and HPRO unit 4. Check conductance of the power cable 5. Check voltage 6. Replace H-DRV board 7. Replace heat process unit 8. Replace mechanical control board 9. Replace the wire bundle between the H-DRVboard and mechanical control board 10. Replace wire bundle between mechanical control board and HPRO unit
C	30E2	Caution	1 Minute average value temperature upper limit error (supply)	1. Check the connection to the internal temperature sensor mechanical control board (CN22) 2. Replace mechanical control board 3. Replace the internal temperature sensor
C	30E3	Caution	1 Minute average value temperature upper limit error (supply)	
F	30ED	HPRO Error	Check the connector disconnect signal for the internal temperature sensor every 0.1 seconds, and an error occurs if an anomaly is detected	1. Check the connection of connector CN22 on the mechanical control board 2. Replace mechanical control board 3. Replace the internal temperature sensor
E	3A0E	HPRO Error	Deodorization FAN rotation error	1. Check connection between mechanical control board and deodorization FAN 2. Replace the deodorization fan 3. Replace mechanical control board 4. Replace wire bundle between deodorization FAN and mechanical control board
E	3B0E	HPRO Error	Supply cooling FAN rotation error	1. Check connection between mechanical control board and supply cooling FAN 2. Replace the supply cooling FAN 3. Replace mechanical control board 4. Replace wire bundle between supply cooling FAN and mechanical control board
E	3C0E	HPRO Error	Heat insulation unit FAN rotation error	1. Check heat insulation unit FAN connector 2. Replace heat insulation unit FAN 3. Replace mechanical control board 4. Replace wire bundle between heat insulation FAN and mechanical control board
C	3DB2	Caution	Standard temperature upper limit error (heating inlet)	Replace HPRO unit
C	3DC2	Caution	Standard temperature upper limit error (slow cool outlet)	
C	3DD2	Caution	Standard temperature upper limit error (rapid cooling outlet)	
C	3DB3	Caution	Standard temperature lower limit error (heating inlet)	
C	3DC3	Caution	Standard temperature lower limit error (slow cool outlet)	
C	3DD3	Caution	Standard temperature lower limit error (rapid cooling outlet)	
E	4110	Pickup not required	Could not pickup at CH1 pickup operation (film does not reach the position regulation FILM detection sensor).	• Shake the tray, and re-insert the film • Replace pickup unit • Check the connection and operation of the pickup motor and mechanical control board • Check the connection and operation of the pickup evacuation motor and mechanical control board • Check the connection and operation of the FILM detection sensor and mechanical control board • Replace mechanical control board
E	4120	The operation was not performed normally	The pickup evacuation sensor did not switch ON during CH1 pickup operation.	• Replace pickup unit • Check the connection and operation of the pickup evacuation motor and mechanical control board • Check the connection and operation of the pickup evacuation sensor and mechanical control board • Replace mechanical control board

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	4121	The operation was not performed normally	The FILM height detection sensor did not switch ON during CH1 elevating plate raising operation.	• Shake the tray, and re-insert the film • Check the connection and operation of the elevating plate motor and mechanical control board • Check the connection and operation of the FILM height detection sensor and mechanical control board • Replace mechanical control board
E	4122	The operation was not performed normally	The elevation HP sensor did not switch ON during the CH1 elevating plate lowering operation.	• Shake the tray, and re-insert the film • Check the connection and operation of the elevating plate motor and mechanical control board • Check the connection and operation of the elevating HP sensor and mechanical control board • Replace mechanical control board
E	4124	The operation was not performed normally	The tray detection sensor did not switch OFF during the CH1 film loading operation.	• Replace tray detection unit • Check the connection and operation of the tray detection sensor and mechanical control board • Check the connection and operation of the tray lock solenoid and mechanical control board • Replace mechanical control board
E	4125	Tray-1 is open	The tray detection sensor switched OFF during operations other than the CH1 film loading operation.	
E	4126	The operation was not performed normally	The pickup evacuation sensor did not switch OFF during CH1 pickup operation.	• Replace pickup unit • Check the connection and operation of the pickup evacuation motor and mechanical control board • Check the connection and operation of the pickup evacuation sensor and mechanical control board • Replace mechanical control board
E	4127	The operation was not performed normally	The FILM height detection sensor did not switch OFF during CH1 elevating plate lowering operation.	• Shake the tray, and re-insert the film • Check the connection and operation of the elevating plate motor and mechanical control board • Check the connection and operation of the FILM height detection sensor and mechanical control board • Replace mechanical control board
E	4128	The operation was not performed normally	The elevation HP sensor did not switch OFF during the CH1 elevating plate raising operation.	• Shake the tray, and re-insert the film • Check the connection and operation of the elevating plate motor and mechanical control board • Check the connection and operation of the elevating HP sensor and mechanical control board • Replace mechanical control board
E	4143	Tray-1 settings are incorrect	CH1 supply unit is set to be used, even though it is not present.	• Check connection between the CH1 supply unit and mechanical control board • Replace mechanical control board
E	4210	Pickup not required	Could not pickup at CH2 pickup operation (film does not reach the position regulation FILM detection sensor).	• Shake the tray, and re-insert the film • Replace pickup unit • Check the connection and operation of the pickup motor and mechanical control board • Check the connection and operation of the pickup evacuation motor and mechanical control board • Check the connection and operation of the FILM detection sensor and mechanical control board • Replace mechanical control board
E	4211	Occurrence of film jam	Film remains on the CH2 outlet sensor	• Check the connection and operation of the CH2 transportation motor and mechanical control board • Check the connection and operation of the CH2 outlet sensor and mechanical control board • Replace mechanical control board
E	4220	The operation was not performed normally	The pickup evacuation sensor did not switch ON during CH2 pickup operation.	• Replace pickup unit • Check the connection and operation of the pickup evacuation motor and mechanical control board • Check the connection and operation of the pickup evacuation sensor and mechanical control board • Replace mechanical control board

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	4121	The operation was not performed normally	The FILM height detection sensor did not switch ON during CH1 elevating plate raising operation.	• Shake the tray, and re-insert the film • Check the connection and operation of the elevating plate motor and mechanical control board • Check the connection and operation of the FILM height detection sensor and mechanical control board • Replace mechanical control board
E	4122	The operation was not performed normally	The elevation HP sensor did not switch ON during the CH1 elevating plate lowering operation.	• Shake the tray, and re-insert the film • Check the connection and operation of the elevating plate motor and mechanical control board • Check the connection and operation of the elevating HP sensor and mechanical control board • Replace mechanical control board
E	4124	The operation was not performed normally	The tray detection sensor did not switch OFF during the CH1 film loading operation.	• Replace tray detection unit • Check the connection and operation of the tray detection sensor and mechanical control board • Check the connection and operation of the tray lock solenoid and mechanical control board • Replace mechanical control board
E	4125	Tray-1 is open	The tray detection sensor switched OFF during operations other than the CH1 film loading operation.	
E	4126	The operation was not performed normally	The pickup evacuation sensor did not switch OFF during CH1 pickup operation.	• Replace pickup unit • Check the connection and operation of the pickup evacuation motor and mechanical control board • Check the connection and operation of the pickup evacuation sensor and mechanical control board • Replace mechanical control board
E	4227	The operation was not performed normally	The elevation HP sensor did not switch OFF during the CH2 elevating plate raising operation.	• Shake the tray, and re-insert the film • Check the connection and operation of the elevating plate motor and mechanical control board • Check the connection and operation of the elevating HP sensor and mechanical control board • Replace mechanical control board
E	4228	The operation was not performed normally	The elevation HP sensor did not switch OFF during the CH2 elevating plate raising operation.	
E	4243	Tray-2 settings are incorrect	CH2 supply unit is set to be used, even though it is not present.	• Check connection between the CH2 supply unit and mechanical control board • Replace mechanical control board
E	4410	Occurrence of film jam	Film remains at position regulation unit. Film did not arrive at feed inlet sensor.	• Check the connection and operation of the feed motor and mechanical control board • Check the connection and operation of the feed nip motor and mechanical control board • Check the connection and operation of the feed inlet sensor and mechanical control board • Replace mechanical control board
E	4411	Occurrence of film jam	Film remains at position regulation unit. Film remains at feed inlet sensor.	
E	4412	Occurrence of film jam	Film remains at position regulation unit. Film remains at position regulation FILM detection sensor.	• Check the connection and operation of the feed motor and mechanical control board • Check the connection and operation of the position transportation motor and mechanical control board • Check the connection and operation of the feed nip motor and mechanical control board • Check the connection and operation of the position regulation FILM detection sensor and mechanical control board • Replace mechanical control board
E	4510	Occurrence of film jam	Film remains at position regulation unit. Film does not arrive at the V-SYNC sensor.	• Check the connection and operation of the feed motor and mechanical control board • Check the connection and operation of the position transportation motor and mechanical control board • Check the connection and operation of the feed nip motor and mechanical control board • Check the connection and operation of the V-SYNC sensor and mechanical control board • Replace mechanical control board

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	4511	Occurrence of film jam	Film remains at the V-SYNC sensor.	• Check the connection and operation of the feed motor and mechanical control board • Check the connection and operation of the position transportation motor and mechanical control board • Check the connection and operation of the HPRO motor and mechanical control board • Check the connection and operation of the feed nip motor and mechanical control board • Check the connection and operation of the V-SYNC sensor and mechanical control board • Replace mechanical control board
E	4512	Occurrence of film jam	Film remains at the V-SYNC sensor.	
E	4520	The operation was not performed normally	The feed nip HP sensor did not switch from ON to OFF during feed nip operation.	• Check the connection and operation of the feed nip motor and mechanical control board • Check the connection and operation of the feed nip HP sensor and mechanical control board • Replace mechanical control board
E	4521	The operation was not performed normally	The feed nip home sensor did not switch ON during the feed nip operation.	
E	4522	The operation was not performed normally	Film arrived at the feed inlet sensor during the feed nip operation.	• Check the connection and operation of the feed nip motor and mechanical control board • Check the connection and operation of the feed nip HP sensor and mechanical control board • Check the connection and operation of the feed inlet sensor and mechanical control board • Replace mechanical control board
E	4610	Occurrence of film jam	Film did not arrive at densitometer inlet sensor.	• Check the connection and operation of the HPRO motor and mechanical control board • Check the connection and operation of the densitometer inlet sensor and mechanical control board • Replace mechanical control board
E	4611	Occurrence of film jam	Film remains at densitometer inlet sensor.	
E	4720	The operation was not performed normally	The 2ch nip open/close HP sensor did not open during the 2ch nip operation.	• Check the connection and operation of the 2ch nip open/close motor and mechanical control board • Check the connection and operation of the 2ch nip open/close HP sensor and mechanical control board • Replace mechanical control board
E	4721	The operation was not performed normally	The 2ch nip open/close HP sensor did not close during the 2ch nip operation.	
E	4820	Filter not mounted	The Deodorant filter detection sensor did not switch ON.	• Check the connection and operation of the Deodorant filter detection sensor and mechanical control board • Replace mechanical control board
E	4A20	The front cover is open	The front cover is open.	• Check the connection and operation of the front cover sensor and mechanical control board • Replace mechanical control board
E	4A21	The right cover is open	The right cover is open.	• Check the connection and operation of the right cover sensor and mechanical control board • Replace mechanical control board
F	4A30	Power cooling fan failure	Power internal cooling FAN is not rotating (did not rotate for more than 5 seconds).	• Check the connection and operation of the power and mechanical control board • Replace power supply • Replace mechanical control board
E	4A32	Main cooling fan failure	The control cooling fan failed.	• Check connection between the control cooling FAN and mechanical control board • Replace mechanical control board
C	4A35	Caution	An error occurred writing EEPROM.	Replace mechanical control board
F	4A37	Note the error code and make a request for servicing	An error occurred reading HPRO EEPROM.	• Check the connection between the HPRO EEPROM board and mechanical control board • Replace HPRO unit • Replace mechanical control board

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	4B34	Note the error code and make a request for servicing	An error occurred reading FLASH.	Replace mechanical control board
F	4B35	Note the error code and make a request for servicing	CN5 on the mechanical control is disconnected. LCD connector disconnected	Due to the F error, switch the power OFF (shutdown operations), and reconnected the mechanical control connector CN5 with the LCD board connector CN1.
F	4B36	Note the error code and make a request for servicing	CN25 on the mechanical control is disconnected. HPRO temperature sensor connector disconnected	Due to the F error, switch the power OFF (shutdown operations), and reconnected the mechanical control connector CN25 with the HPRO unit relay connector.
F	4B37	Note the error code and make a request for servicing	CN15 on the mechanical control is disconnected. H-DRV Board connector disconnected	Due to the F error, switch the power OFF (shutdown operations), and reconnected the mechanical control connector CN15 with the LCD board connector CN6.
F	4B38	Note the error code and make a request for servicing	CN22 on the mechanical control is disconnected. Internal temperature sensor connector disconnected	Due to the F error, switch the power OFF (shutdown operations), and reconnected the mechanical control connector CN22.
F	4B39	Note the error code and make a request for servicing	CN16 on the mechanical control is disconnected. Or the HPRO motor is not operating.	• Due to the F error, switch the power OFF (shutdown operations), and reconnected the mechanical control connector CN16. • Replace the HPRO motor
F	4F00	Control error	Operation unit response timeout error	Due to the F error, switch the power OFF/ON.
F	8000	Application error	Parameter error	After replacing the control box, restore the settings
F	8001	Application error	File does not exist.	
F	8003	Application error	MOT file is not stored in the heap, address error.	
F	8004	Application error	Error in MOT file syntax, midway address error	
F	8005	Application error	Reading error in MOT file	
F	8006	Application error	Data error in ini file	
E	8007	Application error	Received data error	1. Replace the mechanical control board 2. After replacing the control box, restore the settings
E	8008	Application error	Sent data error	
F	8009	Application error	Insufficient memory	After replacing the control box, restore the settings
F	800A	Application error	Communication device open error	
F	800B	Application error	Communication timeout	1. Check for disconnected connectors of communication cable between main-mechanical control (control board side, mechanical control side) 2. Check communication cable between main-mechanical control for broken wires 3. Replace cables between main-mechanical control 4. Replace the mechanical control board 5. After replacing the control box, restore the settings
F	800C	Application error	Mechanical control DSR does not switch ON, or does not switch OFF	
F	800E	Application error	Mechanical control rebooted (1A reception recognized 3 times).	
F	800F	Application error	Cannot send 1B to mechanical control.	After replacing the control box, restore the settings

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	8010	Application error	Cannot receive 1A from mechanical control.	1. Check for disconnected connectors of communication cable between main ? mechanical control (control board side, mechanical control side) 2. Check communication cable between main ? mechanical control for broken wires 3. Replace cables between main mechanical control 4. Replace the mechanical control board 5. After replacing the control box, restore the settings
F	8080	Application error	Retry of print server update is over	After replacing the control box, restore the settings
F	8081	Application error	Cannot open retry file.	
F	8082	Application error	Cannot write into retry file.	
F	8083	Application error	Cannot close retry file.	
F	8084	Application error	Cannot delete retry file.	
F	8090	Application error	Error updating the print version, or there is no file.	
F	8091	Application error	Cannot open print version update file.	
F	8092	Application error	Cannot write print update file to FLASH-ROM.	
F	8093	Application error	Cannot read print version update file.	
F	80A0	Application error	Print driver device error	
F	80A1	Application error	Print driver device open error	
F	80A2	Application error	No pixel clock output	Replace the main board
F	8100	Application error	Flash ROM delete error	Replace the mechanical control board
F	8101	Application error	Flash ROM comparison error	
F	8102	Application error	Memory error	After replacing the control box, restore the settings
F	8104	Application error	Reception error	1. Check for disconnected connectors of communication cable between main-mechanical control (control board side, mechanical control side) 2. Check communication cable between main-mechanical control for broken wires 3. Replace cables between main-mechanical control 4. Replace the mechanical control board 5. After replacing the control box, restore the settings
F	8105	Application error	Received data error	
F	8200	Print control error	Driver: Device not registered	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	8201	Print control error	Driver: Kernel memory acquisition failure	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
F	8202	Print control error	Driver: Physical memory acquisition failure	
F	8203	Print control error	Driver: Device not detected	
F	8204	Print control error	Driver: I/O space mapping failed	
F	8205	Print control error	Driver: IRQ Interrupt registration failed	
F	8206	Print control error	Driver: Physical memory mapping failed	
F	8210	Print control error	Library: Un-opened	
F	8211	Print control error	Library: Duplicate open	
F	8212	Print control error	Library: OFF command	
F	8213	Print control error	Library: OFF parameter	
F	8214	Print control error	Library: Processing command	
F	8215	Print control error	Library: Insufficient resources	
F	8216	Print control error	Library: OFF address	
E	8220	Print control error	Command: HW Diagnosis command	
E	8221	Print control error	Command: Exposure check command	
E	8222	Print control error	Command: Polygon setting command	
E	8223	Print control error	Command: Polygon check command	
E	8224	Print control error	Command: DMA command	
E	8225	Print control error	Command: Print command	
E	8226	Print control error	Command: Print reset command	
E	8227	Print control error	Command: Test operation start command	
E	8228	Print control error	Command: Test operation check command	
E	8229	Print control error	Command: Test operation end command	
E	8230	Print control error	File: open	
E	8231	Print control error	File: Read	
E	8232	Print control error	File: close	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	8240	Print control error	HW Diagnosis: Data path error	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
F	8241	Print control error	HW Diagnosis: Address path error	
F	8242	Print control error	HW Diagnosis: Data conveyor error	
E	8251	Print control error	Exposure unit status: Polygon restart error	
E	8252	Print control error	Exposure unit status: Polygon restart timeout	
D	8253		Exposure unit status: LD temperature control error	Output in log file only. You can continue the process.
D	8254		Exposure unit status: LD drive current error	
D	8255		Exposure unit status: LD luminance error	
D	8256		Exposure unit status: Light arriving at HSYNC error	
E	8260	Print control error	Print operation: Polygon restart error	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace control box.
E	8261	Print control error	Print operation: Polygon restart timeout	
E	8270	Print control error	Print operation: VSYNC timeout error	
E	8271	Print control error	Print operation: HSYNC timeout error	
E	8272	Print control error	Print operation: Surface detection error	
E	8273	Print control error	Print operation: Parity error	
C	8400	Caution	Non target data to mechanical control (main → mechanical control)	After replacing the control box, restore the settings
C	8401	Caution	Non target data to mechanical control (main → mechanical control)	
C	8402	Caution	Non target data to main (mechanical control → main)	
C	8403	Caution	Non target data to main (mechanical control → main)	
C	8410	Caution	select function interrupt factor error	
C	8411	Caution	read function interrupt factor error	
C	8412	Caution	read function interrupt factor error	
E	8440	Application error	Common function (SendProcMsg) error	
E	8441	Application error	Common function (SendProcMsg) error	
F	84A0	Application error	Mechanical control communication retry over (NAK reception retry over)	1. Check for disconnected connectors of communication cable between main-mechanical control (control board side, mechanical control side) 2. Check communication cable between main-mechanical control for broken wires 3. Replace cables between main-mechanical control 4. Replace the mechanical control board 5. After replacing the control box, restore the settings
F	84A1	Application error	Mechanical control communication retry over (Other retry over)	
F	84A5	Application error	DTR Signal timeout error	
F	84A6	Application error	DTR Signal timeout error	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	84A7	Application error	DTR Signal timeout error	1. Check for disconnected connectors of communication cable between main ? mechanical control (control board side, mechanical control side) 2. Check communication cable between main ? mechanical control for broken wires 3. Replace cables between main mechanical control 4. Replace the mechanical control board 5. After replacing the control box, restore the settings
F	84A8	Application error	Mechanical control initial data notification Timeout error	
F	84B0	Application error	COM4 open failed	After replacing the control box, restore the settings
F	84B1	Application error	Acquisition of communication port initial value failed	
F	84B2	Application error	Input Baud rate settings failed	
F	84B3	Application error	Output Baud rate settings failed	
F	84B4	Application error	Other Rs232c settings failed	
F	84C0	Application error	Update process error file open failed	
F	84C1	Application error	Update process error file read failed	
C	8600	Caution	Reception socket error: NetIF_WatchStatus function select error	
C	8602	Caution	Reception from main failed: Error occurred in ReceiveProcMsg function	
C	8604	Caution	Data section reception from PC failed: Error occurred in Receive function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
D	8605	Caution	Header section reception from PC failed: Error occurred in Receive function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables
C	8606	Caution	Send to PC failed: Error occurred in common Send function	1. Check condition of network communication with PrintLink5-IN (CS-2)。 2. Replace HUB, network cables Replace HUB, network cables 。 3. After replacing the control box, restore the settings。
C	8607	Caution	Send to main control failed: Error occurred in common SendProcMsg function	After replacing the control box, restore the settings
F	8608	Application error	PC access wait failed: Error occurred in WaitConnect function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
F	8609	Application error	Port open for PC reception failed: Error occurred in OpenServer function	After replacing the control box, restore the settings
F	860A	Application error	Thread creation failed: Error occurred in pthread_create function	
F	860B	Application error	Update file obtain request was not sent.	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
C	8640	Caution	Receive data from PC sending source process name is incorrect	
C	8641	Caution	Receive data from main sending source process name is incorrect	After replacing the control box, restore the settings

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	8642	Caution	Receive data from PC header code is incorrect, or is unregistered	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
C	8643	Caution	Receive data from main header code is incorrect, or is unregistered	After replacing the control box, restore the settings
C	8644	Caution	Execute function for the internal ID requested from the receive data is not registered	
C	8660	Caution	Failed to obtain logo file status.	1. Perform settings again。 2. After replacing the control box, restore the settings
C	8661	Caution	Logo setup data obtain response communication failed: Error occurred in Send function	
C	8662	Caution	Logo setup data obtain response communication failed: Error occurred in Send function	
E	8663	Application error	Failed to open logo file.	
C	8664	Caution	Logo setup data obtain response communication failed: Error occurred in Send function	
E	8665	Application error	Failed to read logo file.	
E	86A0	Application error	Failed to open file for saving image data.	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
E	86A1	Application error	Failed to write to image data file	After replacing the control box, restore the settings
E	86A2	Application error	Failed to automatically assign memory when receiving image data.	
E	86A3	Application error	Failed to write to image data file	
C	86A4	Caution	Failed to receive image data: Error occurred in Receive function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
E	86A5	Application error	Failed to close file for saving image data.	After replacing the control box, restore the settings
F	86B0	Application error	Failed to open file for saving update data.	
F	86B1	Application error	Failed to write to update data file.	
F	86B2	Application error	Failed to automatically assign memory when updating.	
F	86B3	Application error	Failed to write to update data file.	
F	86B4	Application error	Update data reception failed: Error occurred in Receive function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
F	86B5	Application error	Failed to close file for saving update data.	After replacing the control box, restore the settings
F	86B6	Application error	Update failed.	1. Reinstall PrintLink for DRYPRO 2. After replacing the control box, restore the settings

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	86C0	Application error	Failed to close file for saving logo file data.	1. Perform settings again 2. After replacing the control box, restore the settings
E	86C1	Application error	Failed to write to logo file data file.	
E	86C2	Application error	Failed to automatically assign memory when receiving logo file data.	
E	86C3	Application error	Failed to write to logo file data file.	
C	86C4	Caution	Logo file data reception failed: Error occurred in Receive function	
E	86C5	Application error	Failed to close file for saving logo file data.	
C	86C6	Caution	Failed to move the logo file data	
C	8800	Caution	Reception socket error: MntIF_WatchStatus function select error	After replacing the control box, restore the settings
C	8802	Caution	Reception from main failed: Error occurred in ReceiveProcMsg function	
C	8804	Caution	Data section reception from PC failed: Error occurred in Receive function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
D	8805	Caution	Header section reception from PC failed: Error occurred in Receive function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables
C	8806	Caution	Send to PC failed: Error occurred in common Send function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
C	8807	Caution	Send to main control failed: Error occurred in common SendProcMsg function	After replacing the control box, restore the settings
F	8808	Application error	PC access wait failed: Error occurred in WaitConnect function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
F	8809	Application error	Port open for PC reception failed: Error occurred in OpenServer function	After replacing the control box, restore the settings
F	880A	Application error	Thread creation failed: Error occurred in pthread_create function	
C	8840	Caution	Receive data from PC sending source process name is incorrect	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
C	8841	Caution	Receive data from main sending source process name is incorrect	After replacing the control box, restore the settings
C	8842	Caution	Receive data from PC header code is incorrect, or is unregistered	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
C	8843	Caution	Receive data from main header code is incorrect, or is unregistered	After replacing the control box, restore the settings
C	8844	Caution	Execute function for the internal ID requested from the receive data is not registered	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	88A0	Application error	Failed to open file for saving restore data.	1. Check whether this is the DRYPRO832 restore data 2. Perform restore again 3. After replacing the control box, restore the settings
E	88A1	Application error	Failed to write to restore data file.	After replacing the control box, restore the settings
E	88A2	Application error	Failed to automatically assign memory when expanding restore data.	
E	88A3	Application error	Failed to write to restore data file.	
C	88A4	Caution	Image data reception from PC failed: Error occurred in Receive function	1. Check condition of network communication with PrintLink5-IN (CS-2) 2. Replace HUB, network cables Replace HUB, network cables 3. After replacing the control box, restore the settings
E	88A5	Application error	Failed to close file for saving restore data.	After replacing the control box, restore the settings
E	88B0	Application error	Failed to obtain compressed logo file status	1. Perform logo collection work again 2. After replacing the control box, restore the settings
C	88B1	Caution	Send compressed logo file to PC failed: Error occurred in Send function	
C	88B2	Caution	Send compressed logo file to PC failed: Error occurred in Send function	
E	88B3	Application error	Failed to open compressed logo file.	
C	88B4	Caution	Send compressed logo file to PC failed: Error occurred in Send function	
E	88B5	Application error	Failed to read compressed logo file	
E	88C0	Application error	Failed to obtain backup (ini) file status.	
C	88C1	Caution	Send backup (ini) file to PC failed: Error occurred in Send function	
C	88C2	Caution	Send backup (ini) file to PC failed: Error occurred in Send function	
E	88C3	Application error	Failed to read backup (ini) file.	
C	88C4	Caution	Send backup (ini) file to PC failed: Error occurred in Send function	
E	88C5	Application error	Failed to read backup (ini) file.	
C	8A00	Caution	Socket communication WatchStatus function error	After replacing the control box, restore the settings
C	8A01	Caution	Socket communication ReceiveProcMsg Function error	
F	8AA0	Application error	Failed to open local I/O device	After replacing the control box, restore the settings
F	8AA1	Application error	COM3 open failed	
F	8AA2	Application error	Acquisition of communication port initial value failed	
F	8AA3	Application error	Input Baud rate settings failed	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	8AA4	Application error	Output Baud rate settings failed	After replacing the control box, restore the settings
F	8AA5	Application error	Other Rs232c settings failed	
D	8AF0	Application error	Shutdown from UPS	Shutdown signal received from UPS due to power cut, lowered voltage etc
F	9000	Application error	Failed to read total version file	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
F	9010	Application error	Failed to start network IF: fork()	
F	9011	Application error	Failed to start network IF: exec ()	
F	9012	Application error	Failed to start network IF: socket ()	
F	9013	Application error	Failed to start network IF: bind ()	
F	9014	Application error	Failed to start network IF: listen()	
F	9015	Application error	Failed to start network IF: select ()	
F	9016	Application error	Failed to start network IF: accept ()	
F	9017	Application error	Failed to start network IF: send ()	
F	9018	Application error	Failed to start network IF: recv ()	
F	9019	Application error	Failed to start network IF: Communication timeout	
F	9020	Application error	Failed to start mechanical control IF: fork()	
F	9021	Application error	Failed to start mechanical control IF: exec ()	
F	9022	Application error	Failed to start mechanical control IF: socket()	
F	9023	Application error	Failed to start mechanical control IF: bind()	
F	9024	Application error	Failed to start mechanical control IF: listen()	
F	9025	Application error	Failed to start mechanical control IF: select ()	
F	9026	Application error	Failed to start mechanical control IF: accept ()	
F	9027	Application error	Failed to start mechanical control IF: send ()	
F	9028	Application error	Failed to start mechanical control IF: recv ()	
F	9029	Application error	Failed to start mechanical control IF: Communication timeout	
F	9030	Application error	Failed to start print IF: fork()	
F	9031	Application error	Failed to start print IF: exec ()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	9032	Application error	Failed to start print IF: socket ()	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
F	9033	Application error	Failed to start print IF: bind()	
F	9034	Application error	Failed to start print IF: listen ()	
F	9035	Application error	Failed to start print IF: select ()	
F	9036	Application error	Failed to start print IF: accept()	
F	9037	Application error	Failed to start print IF: send ()	
F	9038	Application error	Failed to start print IF: recv ()	
F	9039	Application error	Failed to start print IF: Communication timeout	
F	9040	Application error	Failed to start maintenance IF: fork()	
F	9041	Application error	Failed to start maintenance IF: exec ()	
F	9042	Application error	Failed to start maintenance IF: socket ()	
F	9043	Application error	Failed to start maintenance IF: bind()	
F	9044	Application error	Failed to start maintenance IF: listen()	
F	9045	Application error	Failed to start maintenance IF: select ()	
F	9046	Application error	Failed to start maintenance IF: accept ()	
F	9047	Application error	Failed to start maintenance IF: send ()	
F	9048	Application error	Failed to start maintenance IF: recv ()	
F	9049	Application error	Failed to start maintenance IF: Communication timeout	
F	9050	Application error	Failed to start power IF: fork()	
F	9051	Application error	Failed to start power IF: exec ()	
F	9052	Application error	Failed to start power IF: socket()	
F	9053	Application error	Failed to start power IF: bind()	
F	9054	Application error	Failed to start power IF: listen ()	
F	9055	Application error	Failed to start power IF: select ()	
F	9056	Application error	Failed to start power IF: accept()	
F	9057	Application error	Failed to start power IF: send ()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
F	9058	Application error	Failed to start power IF: recv ()	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
F	9059	Application error	Failed to start power IF: Communication timeout	
F	9060	Application error	Failed to start remote IF: fork()	
F	9061	Application error	Failed to start remote IF: exec ()	
F	9062	Application error	Failed to start remote IF: socket ()	
F	9063	Application error	Failed to start remote IF: bind()	
F	9064	Application error	Failed to start remote IF: listen ()	
F	9065	Application error	Failed to start remote IF: select ()	
F	9066	Application error	Failed to start remote IF: accept()	
F	9067	Application error	Failed to start remote IF: send ()	
F	9068	Application error	Failed to start remote IF: recv ()	
F	9069	Application error	Failed to start remote IF: Communication timeout	
F	9070	Application error	Time management thread: pthread_create()	
F	9071	Application error	Message receive waiting thread: pthread_create()	
F	9072	Application error	Imager management thread: pthread_create()	
D	9100		Setting file (print conditions settings) error: fopen()	Output in log file only. You can continue the process.
D	9101		Setting file (print conditions settings) error: fread()	
D	9102		Setting file (print conditions settings) error: fwrite()	
D	9103		Setting file (print conditions settings) error: Parameter fault	
D	9104		Setting file (LUT settings) error: fopen()	
D	9105		Setting file (LUT settings) error: fread()	
D	9106		Setting file (LUT settings) error: fwrite()	
D	9107		Setting file (LUT settings) error: Parameter fault	
D	9108		Setting file (Border custom settings) error: fopen()	
D	9109		Setting file (Border custom settings) error: fread()	
D	910A		Setting file (Border custom settings) error: fwrite()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	910B		Setting file (Border custom settings) error: Parameter fault	Output in log file only. You can continue the process.
D	910C		Setting file (tray settings) Error: fopen()	
D	910D		Setting file (tray settings) Error: fread()	
D	910E		Setting file (tray settings) Error: fwrite()	
D	910F		Setting file (tray settings) Error: Parameter fault	
D	9110		Setting file (Calibration setup) error: fopen()	
D	9111		Setting file (Calibration setup) error: fread()	
D	9112		Setting file (Calibration setup) error: fwrite()	
D	9113		Setting file (Calibration setup) error: Parameter fault	
D	9114		Setting file (system settings) Error: fopen()	
D	9115		Setting file (system settings) Error: fread()	
D	9116		Setting file (system settings) Error: fwrite()	
D	9117		Setting file (system settings) Error: Parameter fault	
D	9118		Setting file (SCP setup) error: fopen()	
D	9119		Setting file (SCP setup) error: fread()	
D	911A		Setting file (SCP setup) error: fwrite()	
D	911B		Setting file (SCP setup) error: Parameter fault	
D	911C		Setting file (SCU setup) error: fopen()	
D	911D		Setting file (SCU setup) error: fread()	
D	911E		Setting file (SCU setup) error: fwrite()	
D	911F		Setting file (SCU setup) error: Parameter fault	
D	9120		Setting file (Time layout) error: fopen()	
D	9121		Setting file (Time layout) error: fread()	
D	9122		Setting file (Time layout) error: fwrite()	
D	9123		Setting file (Time layout) error: Parameter fault	
D	9124		Setting file (Language setup) error: fopen()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	9125		Setting file (Language setup) error: fread()	Output in log file only. You can continue the process.
D	9126		Setting file (Language setup) error: fwrite()	
D	9127		Setting file (Language setup) error: Parameter fault	
D	9128		Setting file (Maintenance schedule) Error: fopen()	
D	9129		Setting file (Maintenance schedule) Error: fread()	
D	912A		Setting file (Maintenance schedule) Error: fwrite()	
D	912B		Setting file (Maintenance schedule) Error: Parameter fault	
D	912C		Setting file (product settings) Error: fopen()	
D	912D		Setting file (product settings) Error: fread()	
D	912E		Setting file (product settings) Error: fwrite()	
D	912F		Setting file (product settings) Error: Parameter fault	
D	9130		Setting file (mechanical control settings) Error: fopen()	
D	9131		Setting file (mechanical control settings) Error: fread()	
D	9132		Setting file (mechanical control settings) Error: fwrite()	
D	9133		Setting file (mechanical control settings) Error: Parameter fault	
D	9134		Setting file (HPRO setup) error: fopen()	
D	9135		Setting file (HPRO setup) error: fread()	
D	9136		Setting file (HPRO setup) error: fwrite()	
D	9137		Setting file (HPRO setup) error: Parameter fault	
D	9138		Setting file (HPRO temperature setup) Error: fopen()	
D	9139		Setting file (HPRO temperature setup) Error: fread()	
D	913A		Setting file (HPRO temperature setup) Error: fwrite()	
D	913B		Setting file (HPRO temperature setup) Error: Parameter fault	
D	913C		Setting file (Days density correction setup) error: fopen()	
D	913D		Setting file (Days density correction setup) error: fread()	
D	913E		Setting file (Days density correction setup) error: fwrite()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	913F		Setting file (Days density correction setup) error: Parameter fault	Output in log file only. You can continue the process.
D	9140		Setting file (correction settings) Error: fopen()	
D	9141		Setting file (correction settings) Error: fread()	
D	9142		Setting file (correction settings) Error: fwrite()	
D	9143		Setting file (correction settings) Error: Parameter fault	
D	9144		Setting file (density correction data) Error: fopen()	
D	9145		Setting file (density correction data) Error: fread()	
D	9146		Setting file (density correction data) Error: fwrite()	
D	9147		Setting file (density correction data) Error: Parameter fault	
D	9180		Setting file (Densitometer settings) Error: fopen()	
D	9181		Setting file (Densitometer settings) Error: fread()	
D	9182		Setting file (Densitometer settings) Error: fwrite()	
D	9183		Setting file (Densitometer settings) Error: Parameter fault	
D	9184		Setting file (density correction data) Error: fopen()	
D	9185		Setting file (density correction data) Error: fread()	
D	9186		Setting file (density correction data) Error: fwrite()	
D	9187		Setting file (density correction data) Error: Parameter fault	
D	9188		Setting file (LUT library CT/MRI) error: fopen()	
D	9189		Setting file (LUT library CT/MRI) error: fread()	
D	918A		Setting file (LUT library CT/MRI) error: fwrite()	
D	918B		Setting file (LUT library CT/MRI) error: Parameter fault	
D	918C		Setting file (LUT library CR) error: fopen()	
D	918D		Setting file (LUT library CR) error: fread()	
D	918E		Setting file (LUT library CR) error: fwrite()	
D	918F		Setting file (LUT library CR) error: Parameter fault	
D	9190		Setting file (LUT library DSA) error: fopen()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	9191		Setting file (LUT library DSA) error: fread()	Output in log file only. You can continue the process.
D	9192		Setting file (LUT library DSA) error: fwrite()	
D	9193		Setting file (LUT library DSA) error: Parameter fault	
D	9194		Setting file (LUT library US) error: fopen()	
D	9195		Setting file (LUT library US) error: fread()	
D	9196		Setting file (LUT library US) error: fwrite()	
D	9197		Setting file (LUT library US) error: Parameter fault	
D	9198		Setting file (LUT library RI) error: fopen()	
D	9199		Setting file (LUT library RI) error: fread()	
D	919A		Setting file (LUT library RI) error: fwrite()	
D	919B		Setting file (LUT library RI) error: Parameter fault	
D	919C		Setting file (Film color tone calibration setup) error: fopen()	
D	919D		Setting file (Film color tone calibration setup) error: fread()	
D	919E		Setting file (Film color tone calibration setup) error: fwrite()	
D	919F		Setting file (Film color tone calibration setup) error: Parameter fault	
D	91A0		Setting file (Image processing function debug information) Error: fopen()	
D	91A1		Setting file (Image processing function debug information) Error: fread()	
D	91A2		Setting file (Image processing function debug information) Error: fwrite()	
D	91A3		Setting file (Image processing function debug information) error: Parameter fault	
D	91C0		Setting file (LUT library DR) error: fopen()	
D	91C1		Setting file (LUT library DR) error: fread()	
D	91C2		Setting file (LUT library DR) error: fwrite()	
D	91C3		Setting file (LUT library DR) error: Parameter fault	
D	91C4		Setting file (Image processing function debug information) Error: fopen()	
D	91C5		Setting file (Image processing function debug information) Error: fread()	
D	91C6		Setting file (Image processing function debug information) Error: fwrite()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	91C7		Setting file (Image processing function debug information) error: Parameter fault	Output in log file only. You can continue the process.
D	91C8		Setting file (tray elapsed setup) Error: fopen()	
D	91C9		Setting file (tray elapsed setup) Error: fread()	
D	91CA		Setting file (tray elapsed setup) Error: fwrite()	
D	91CB		Setting file (tray elapsed setup) Error: Parameter fault	
D	91CC		Setting file (Calibration elapsed setup) error: fopen()	
D	91CD		Setting file (Calibration elapsed setup) error: fread()	
D	91CE		Setting file (Calibration elapsed setup) error: fwrite()	
D	91CF		Setting file (Calibration elapsed setup) error: Parameter fault	
D	91D0		Setting file (Maintenance schedule elapsed) error: fopen()	
D	91D1		Setting file (Maintenance schedule elapsed) error: fread()	
D	91D2		Setting file (Maintenance schedule elapsed) error: fwrite()	
D	91D3		Setting file (Maintenance schedule elapsed) error: Parameter fault	
D	91D4		Setting file (Calibration data) error: fopen()	
D	91D5		Setting file (Calibration data) error: fread()	
D	91D6		Setting file (Calibration data) error: fwrite()	
D	91D7		Setting file (Calibration data) error: Parameter fault	
D	91D8		Setting file (Density correction) error: fopen()	
D	91D9		Setting file (Density correction) error: fread()	
D	91DA		Setting file (Density calibration) error: fwrite()	
D	91DB		Setting file (Density calibration) error: Parameter fault	
D	91DC		Setting file (Internal management data setup) error: fopen()	
D	91DD		Setting file (Internal management data setup) error: fread()	
D	91DE		Setting file (Internal management data setup) error: fwrite()	
D	91DF		Setting file (Internal management data setup) error: Parameter fault	
D	91E0		Setting file (Resin lens correction setup) error: fopen()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	91E1		Setting file (Resin lens correction setup) error: fread()	Output in log file only. You can continue the process.
D	91E2		Setting file (Resin lens correction setup) error: fwrite()	
D	91E3		Setting file (Resin lens correction setup) error: Parameter fault	
D	91E4		Setting file (Film color tone calibration setup) error: fopen()	
D	91E5		Setting file (Film color tone calibration setup) error: fread()	
D	91E6		Setting file (Film color tone calibration setup) error: fwrite()	
D	91E7		Setting file (Film color tone calibration setup) error: Parameter fault	
E	9200	Application error	Print timeout error: [NET] print request ~ Image data receive completed notification	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
E	9201	Application error	Print timeout error: [MEC] supply request ~ supply response	
E	9202	Application error	Print timeout error: [MEC] Exposure request ~ Exposure response	
E	9203	Application error	Print timeout error: [MEC] Exposure response ~ Discharging completion notification	
E	9204	Application error	Print timeout error: [PRN] Image data transfer request ~ Image data transfer response	
E	9205	Application error	Print timeout error: [PRN] Polygon status check request ~ Polygon status check response	
E	9206	Application error	Print timeout error: [PRN] Print preparation response ~ Expose process complete notification	
E	9207	Application error	Print timeout error: [ALL] Print request	
E	9210	Application error	Print sequence error: [PRN] exposure process complete notification does not arrive for [MEC] discharge complete notification	
E	9211	Film Size Err: Queue cleared	Film sizeType error : Reception of an image data which is different from the Film sizeType of the machine	Change the image data so that the type of film size of the machine is equivalent to that of the image data sent.
D	9220	Application error	Timer process timeout: Shutdown	Output in log file only. You can continue the process.
E	9221	Application error	Timer process timeout: Error release	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
C	9900	Caution	ini file read error: [PrintCondition] ManageInfoPrint	
C	9901	Caution	ini file read error: [PrintCondition] RequestedImageSize	
C	9902	Caution	ini file read error: [PrintCondition] RequestedImageSizeStamp	
C	9903	Caution	ini file read error: [PrintCondition] IntegralMultipleRatio	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	9904	Caution	ini file read error: [PrintCondition] PatientInfoPosition	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
C	9905	Caution	ini file read error: [PrintCondition] PatientInfoSize	
C	9906	Caution	ini file read error: [PrintCondition] StampPosition	
C	9907	Caution	ini file read error: [PrintCondition] StampSize	
C	9910	Caution	ini file read error: [StampLogo] Print	
C	9920	Caution	ini file read error: [BorderCustom] Top&BottomSize	
C	9921	Caution	ini file read error: [BorderCustom] Left&RightSize	
C	9930	Caution	ini file read error: [Tray] Tray1Use	
C	9931	Caution	ini file read error: [Tray] Tray1FilmSize	
C	9932	Caution	ini file read error: [Tray] Tray1FilmType	
C	9933	Caution	ini file read error: [Tray] Tray1Count	
C	9934	Caution	ini file read error: [Tray] Tray1SheetOfPackage	
C	9935	Caution	ini file read error: [Tray] Tray2Use	
C	9936	Caution	ini file read error: [Tray] Tray2FilmSize	
C	9937	Caution	ini file read error: [Tray] Tray2FilmType	
C	9938	Caution	ini file read error: [Tray] Tray2Count	
C	9939	Caution	ini file read error: [Tray] Tray2SheetOfPackage	
C	993A	Caution	ini file read error: [Tray] SeriesUse	
C	9940	Caution	ini file read error: [Calibration] UponFilmSet	
C	9941	Caution	ini file read error: [Calibration] ScheduledCalibration	
C	9942	Caution	ini file read error: [Calibration] DefaultCalibrationTime	
C	9943	Caution	ini file read error: [Calibration] Tray1ElapsedHours	
C	9944	Caution	ini file read error: [Calibration] Tray2ElapsedHours	
C	9950	Caution	ini file read error: [System] ImagerName	
C	9951	Caution	ini file read error: [System] PowerOffMode	
C	9952	Caution	ini file read error: [System] SleepMode	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	9953	Caution	ini file read error: [System] SleepModeTimer	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
C	9954	Caution	ini file read error: [System] Buzzer	
C	9955	Caution	ini file read error: [System] LogWeiteMode	
C	9960	Caution	ini file read error: [Layout] DateFormat	
C	9961	Caution	ini file read error: [Layout] DatSeparator	
C	9962	Caution	ini file read error: [Layout] TimeFormat	
C	9970	Caution	ini file read error: [Maintenance] MaintenanceStandardSheets	
C	9971	Caution	ini file read error: [Maintenance] MaintenancePrintSheets	
C	9972	Caution	ini file read error: [Maintenance] FilterStandardDays	
C	9973	Caution	ini file read error: [Maintenance] FilterElapsedDays	
C	9974	Caution	ini file read error: [Maintenance] FilterStandardSheets	
C	9975	Caution	ini file read error: [Maintenance] FilterPrintSheets	
C	9980	Caution	ini file read error:[DensityCorrect] PatcMain ScanensityCorrection	
C	9981	Caution	ini file read error: [DensityCorrect] PatchFF	
C	9982	Caution	ini file read error: [DensityCorrect] PatchGain	
C	9983	Caution	ini file read error: [DensityCorrect] PatchInterval	
C	9990	Caution	ini file read error: [Product] SerialNo	
D	99A0		Update error 00	Output in log file only. You can continue the process.
D	99A1		Update error 01	
D	99A2		Update error 02	
D	99A3		Update error 03	
D	99A4		Update error 04	
D	99A5		Update error 05	
D	99A6		Update error 06	
D	99A7		Update error 07	
D	99A8	Application error	Update error 08	
D	99A9	Application error	Update error 09	
D	99AA	Application error	Update error 0A	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	99AB	Application error	Update error 0B	Output in log file only. You can continue the process.
D	99AC		Update error 0C	
D	99AD		Update error 0D	
D	99AE		Update error 0E	
D	99AF		Update error 0F	
D	99B0		Update error 10	
D	99B1		Update error 11	
D	99B2		Update error 12	
D	99B3		Update error 13	
D	99B4		Update error 14	
D	99B5		Update error 15	
D	99B6		Update error 16	
D	99B7		Update error 17	
D	99B8		Update error 18	
D	99B9		Update error 19	
D	99BA		Update error 1A	
E	9A00	Application error	Socket error: socket()	The cause of this error is either software or hardware. Either reset the error, or switch the power OFF/ON. If this does not correct the problem, either upgrade the software or replace the control box.
E	9A01	Application error	Socket error: bind()	
E	9A02	Application error	Socket error: listen()	
E	9A03	Application error	Socket error: connect()	
C	9A04	Caution	Socket error: select()	
E	9A05	Application error	Socket error: accept()	
C	9A06	Caution	Socket error: send()	
C	9A07	Caution	Socket error: recv()	
E	9A08	Application error	Socket error: Server IP is incorrect	
C	9A09	Caution	Socket error: Timout occurred	
E	9A10	Application error	File error: fopen()	
E	9A11	Application error	File error: fopen()	
E	9A12	Application error	File error: fwrite()	
E	9A13	Application error	File error: fread()	
E	9A20	Application error	Pipe error: pipe()	
E	9A21	Application error	Pipe error: write()	
E	9A22	Application error	Pipe error: read()	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
E	B200	PROC START ERROR	Failed to start setup data management process	The problem may be solved by rebooting the system. Collect the log.
E	B201	PROC START ERROR	Failed to start file management process	
E	B202	PROC START ERROR	Failed to start queue management process	
E	B203	PROC START ERROR	Failed to start IMAGER management process	
E	B204	PROC START ERROR	Failed to start image creation process	
E	B205	PROC START ERROR	Failed to start time management process	
E	B206	PROC START ERROR	Failed to start GUI process	
E	B207	PROC START ERROR	Failed to start communication condition process	
E	B208	DICOM FILE MAKE ERROR	DICOM data creation error	
E	B209	VERSIONUP ERROR	Error occurred in update file obtain response	
E	B20A	ERROR RESET ERROR	Error reset error	
F	B20B	START END TIMEOUT ERROR	Startup complete timout	
D	B400	FILEMNTPRO C ERROR	Error at startup	
D	B401	FILEMNTPRO C ERROR	DCM.exe startup error	
D	B402	FILEMNTPRO C ERROR	DCM Initial setup file error	
D	B403	FILEMNTPRO C ERROR	DCM.exe fail completed	
D	B410	FILEMNTPRO C ERROR	Server PC internal communication error	
D	B420	FILEMNTPRO C ERROR	Queue management data error	
D	B460	FILEMNTPRO C ERROR	Communication data parameter fault	
D	B499	FILEMNTPRO C ERROR	Other process error	
D	B600	QUEMNGPRO C ERROR	Error at startup	
D	B610	QUEMNGPRO C ERROR	Server PC internal communication error	
D	B620	QUEMNGPRO C ERROR	Queue management data error	
D	B660	QUEMNGPRO C ERROR	Communication data parameter fault	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
D	B690	QUEMNGPRO C ERROR	Disk space error	The problem may be solved by rebooting the system. Collect the log.
D	B691	QUEMNGPRO C ERROR	Queue registration quantity exceeded	
D	B692	QUEMNGPRO C ERROR	Queue delete error	
D	B699	QUEMNGPRO C ERROR	Other process error	
D	B800	IMAGERMNG PROC ERROR	Error at startup	
D	B810	IMAGERMNG PROC ERROR	Server PC internal communication error	
D	B820	IMAGERMNG PROC ERROR	Film transportation management error	
E	B830	IMAGERMNG PROC ERROR	[Image creation response MSG] returned value is NG	
E	B831	IMAGERMNG PROC ERROR	[Image creation response MSG] returned value was successful, but there is no created file.	
D	B832	IMAGERMNG PROC ERROR	[Print response MSG] returned value is NG	
D	B833	IMAGERMNG PROC ERROR	[Image data response MSG] returned value is NG	
D	B834	IMAGERMNG PROC ERROR	[Print end instruction MSG] returned value is NG	
D	B850	IMAGERMNG PROC ERROR	Transportation process [Image creation response MSG] Timeout error	
D	B851	IMAGERMNG PROC ERROR	Transportation process [Print response MSG] Timeout error	
D	B852	IMAGERMNG PROC ERROR	Transportation process [Image data response MSG] Timeout error	
D	B853	IMAGERMNG PROC ERROR	Transportation process [DMA sent end instruction MSG] timeout error	
D	B854	IMAGERMNG PROC ERROR	Transportation process [Print end response MSG] timeout error	
D	B860	IMAGERMNG PROC ERROR	Communication data parameter fault	
D	B899	IMAGERMNG PROC ERROR	Other process error	
C	BA00	IMAGE FILE OPEN ERR	Error at image file open	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	BA01	IMAGE FILE READ ERR	Error at image file read	The problem may be solved by rebooting the system. Collect the log.
C	BA02	DICOM (2020:0010) ERR	IMAGE BOX image position error	
C	BA03	DICOM (2020:0020) ERR	IMAGE BOX polarity error	
C	BA04	DICOM (0028:0100) ERR	IMAGE BOX pixel assign bit number error	
C	BA05	DICOM (0028:0101) ERR	IMAGE BOX pixel bit number Error	
C	BA06	DICOM (0028:0102) ERR	IMAGE BOX High order bit error	
C	BA07	DICOM (0028:0102) ERR	IMAGE BOX pixel data expression Error	
C	BA08	DICOM (0028:0004) ERR	IMAGE BOX optical measurement construction error	
C	BA09	FILMBOX FORMAT ERR	FILM BOX format check error	
C	BA0A	FILMBOX FILM ORIENT ERR	FILM BOX film orientation error	
C	BA0B	FILMBOX FILM SIZE ERR	FILM BOX film size error	
C	BA0C	FILMBOX PORTRAIT NOPRINT	Cannot print with width specified from FILM BOX PORTRAIT.	
C	BA0D	FILMBOX LANDSCAPE NOPRINT	Cannot print with length specified from FILM BOX LANDSCAPE.	
C	BA0E	FILMBOX STANDARD ERR	FILM BOX Image Format information (STANDARD) error	
C	BA0F	FILMBOX ROW ERR	FILM BOX Image Format information (ROW) error	
C	BA10	FILMBOX SLIDE ERR	FILM BOX Image Format information (SLIDE) error	
C	BA11	FILMBOX CUSTOM ERR	FILM BOX Image Format information (CUSTOM) error	
C	BA12	FILMBOX MAGNIFICATION ERR	FILM BOX magnification method error	
C	BA13	FILMBOX INTERPOLATION ERR	FILM BOX interpolation function type error	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	BA14	FILMBOX BORDER ERR	FILM BOX Border error	The problem may be solved by rebooting the system. Collect the log.
C	BA15	FILMBOX TRIM ERR	FILM BOX trim error	
C	BA16	FILMBOX CONTRAST ERR	FILM BOX contrast error	
C	BA17	FILMBOX DNSITY ERR	FILM BOX density error	
C	BA18	FILMBOX GLOSSY ERR	FILM BOX glossy error	
C	BA19	NO IMAGE DATA	No received image information	
C	BA1A	NO FILM SESSION	The appropriate film box does not exist when normal printing.	
C	BA1B	NO FILM BOX	The appropriate film box box does not exist when normal printing.	
C	BA1C	NO IMAGE BOX	The appropriate image box does not exist when normal printing.	
C	BA1D	REC DATA ERR	There is a discrepancy in the STANDARD format.	
C	BA1E	REC DATA ERR	The STANDARD format does not exist in d007.ini	
C	BA1F	REC DATA ERR	There is a discrepancy in the ROW format.	
C	BA20	REC DATA ERR	The ROW format does not exist in d007.ini.	
C	BA21	REC DATA ERR	The SLIDE format does not exist in d007.ini.	
C	BA22	REC DATA ERR	There is a discrepancy in the CUSTOM format .	
C	BA23	REC DATA ERR	FILM BOX luminance conversion error	
C	BA24	REC DATA ERR	FILM BOX Border size error	
C	BA25	REC DATA ERR	FILM BOX format type error	
C	BA26	REC DATA ERR	FILM BOX stamp message output error	
C	BA27	BITMAP ERR	BITMAP SIZE height error	
C	BA28	BITMAP ERR	BITMAP SIZE width error	
C	BA29	BITMAP ERR	BITMAP interpolation process error	
C	BA2A	IMAGE FILE WRITE ERR	Error at image file creation	
C	BC00	LOG DELETE ERROR	Failed to create the log registration list	
C	BC01	LOG DELETE ERROR	Failed to delete log	
C	BC02	SUM FILE MAKE ERROR	Failed to create film total file	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	BC03	LOG DELETE ERROR	Failed to create the log registration list	The problem may be solved by rebooting the system. Collect the log.
C	BC04	LOG DELETE ERROR	Failed to delete log	
C	BC05	REP STATUS ERROR	Status change report failed	
E	BE00	DICOM FILE MAKE ERROR	Failed to create DICOM directory	
C	BE01	REP STATUS ERROR	Status change notification Failure occured	
C	BE02	REP STATUS ERROR	Tray setup data obtain response failure occurred	
C	BE03	REP STATUS ERROR	System setup data obtain response failure occurred	
C	BE04	REP STATUS ERROR	Time layout setup data obtain response failure occurred	
C	BE05	REP STATUS ERROR	Language setup data obtain response failure occurred	
C	BE06	REP STATUS ERROR	Product setup data obtain response failure occurred	
C	BE07	REP STATUS ERROR	Print condition data obtain response failure occurred	
C	BE08	REP CH ERROR	Print condition data obtain response Input device selection other than 1~4	
C	BE09	LUT MAKE ERROR	Print condition data obtain response LUT creation failed	
C	BE0A	REP STATUS ERROR	LUT setup data obtain response failure occurred	
C	BE0B	REP CH ERROR	LUT setup data obtain response Input device selection other than 1~4	
C	BE0C	LUT MAKE ERROR	LUT setup data obtain response User LUT definition file creation failure	
C	BE0D	REP STATUS ERROR	LUT setup data obtain response LUT creation failed	
C	BE0E	REP STATUS ERROR	Custom border setup data obtain response failure occured	
C	BE0F	REP STATUS ERROR	DICOM SCP Setup data obtain response failure occurred	
C	BE10	REP STATUS ERROR	DICOM SCU Setup data obtain response failure occurred	
C	BE11	REP CH ERROR	DICOM SCU Setup data obtain response Input device selection other than 1~4	
C	BE12	REP STATUS ERROR	Print condition data obtain request failure occurred	
C	BE13	REP STATUS ERROR	Print condition setup data setup request failure occurred	
C	BE14	LUT MAKE ERROR	Print condition setup data setup request LUT creation failed	
C	BE15	REP STATUS ERROR	LUT setup data obtain request failure occurred	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	BE16	LUT GET ERROR	LUT setup data obtain request User LUT definition file obtain failure	The problem may be solved by rebooting the system. Collect the log.
C	BE17	REP STATUS ERROR	LUT setup data setup request Input device selection other than 1~4	
C	BE18	LUT MAKE ERROR	LUT setup data setup request User LUT definition file creation failure	
C	BE19	LUT MAKE ERROR	LUT setup data setup request LUT creation failed	
C	BE1A	REP STATUS ERROR	LUT library data obtain request failure occurred	
C	BE1B	REP STATUS ERROR	LUT library name data obtain request failure occurred	
C	BE1C	REP STATUS ERROR	DICOM SCU Setup data obtain request failure occurred	
C	BE1D	REP STATUS ERROR	DICOM SCU Setup data setup request failure occurred	
C	BE1E	REP STATUS ERROR	Image adjust data obtain response failure occurred	
C	BE1F	REP STATUS ERROR	Logo setup data obtain response failure occurred	
D	C000	COMMPROC ERROR	Error at startup	
D	C010	COMMPROC ERROR	Server PC internal communication error	
D	C020	COMMPROC ERROR	KI3 Main unit communication error	
D	C030	COMMPROC ERROR	File access error	
D	C070	COMMPROC ERROR	Destination IP Address, Port No error	
D	C080	COMMPROC ERROR	Connected to a different PC	
D	C099	COMMPROC ERROR	Other process error	
C	C200	MSG SEND ERROR	Communication error (send error)	
C	C201	LOGIN RSP NG	Login response NG	
C	C202	LOGIN RSP TIMEOUT	Login response Timeout	
C	C203	LOGOUT RSP NG	Logout response NG	
C	C204	LOGOUT RSP TIMEOUT	Logout response Timeout	
C	C205	RESERVE	Reservation	
C	C206	JOB LIST RSP NG	GUI job data information obtain data response NG	
C	C207	JOB LIST RSP TIMEOUT	GUI job data information obtain data response Timeout	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	C208	QUE DEL RSP NG	Queue delete response NG	The problem may be solved by rebooting the system. Collect the log.
C	C209	QUE DEL RSP TIMEOUT	Queue delete response Timeout	
C	C210	RESERVE	Reservation	
C	C211	TEST PRINT RSP NG	Test print registration response NG	
C	C212	TEST PRINT RSP TIMEOUT	Test print registration response Timeout	
C	C214	QC TEST PRINT RSP NG	QC Test print registration response NG	
C	C215	QC TEST PRINT RSP TIMEOUT	QC Test print registration response NG	
C	C216	RESERVE	Reservation	
C	C217	PRINT COND GET RSP NG	Print condition data obtain response NG	
C	C218	PRINT COND GET RSP TIMEOUT	Print condition data obtain response Timeout	
C	C219	PRINT COND SET RSP NG	Print condition data setup response NG	
C	C220	PRINT COND SET RSP TIMEOUT	Print condition data setup response Timeout	
C	C221	RESERVE	Reservation	
C	C222	BORDER GET RSP NG	Custom border setup data obtain response NG	
C	C223	BORDER GET RSP TIMEOUT	Custom border setup data obtain response Timeout	
C	C224	BORDER SET RSP NG	Custom border setup data setup response NG	
C	C225	BORDER SET RSP TIMEOUT	Custom border setup data setup response Timeout	
C	C226	RESERVE	Reservation	
C	C227	COUNT ERROR	Count failure	
C	C228	CSV FILE WRITE ERROR	CSV file output error	
C	C229	RESERVE	Reservation	
C	C230	TRAY GET RSP NG	Tray setup data obtain response NG	
C	C231	TRAY GET RSP TIMEOUT	Tray setup data obtain response Timeout	
C	C232	TRAY SET RSP NG	Tray setup data setup response NG	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	C233	TRAY SET RSP TIMEOUT	Tray setup data setup response Timeout	The problem may be solved by rebooting the system. Collect the log.
C	C234	RESERVE	Reservation	
C	C235	CALIB GET RSP NG	Calbration setup data obtain response NG	
C	C236	CALIB GET RSP TIMEOUT	Calbration setup data obtain response Timeout	
C	C237	CALIB SET RSP NG	Calbration setup data setup response NG	
C	C238	CALIB SET RSP TIMEOUT	Calibration setup data setup response Timeout	
C	C239	RESERVE	Reservation	
C	C240	SYSTEM GET RSP NG	System setup data obtain response NG	
C	C241	SYSTEM GET RSP TIMEOUT	System setup data obtain response Timeout	
C	C242	SYSTEM SET RSP NG	System setup data setup response NG	
C	C243	SYSTEM SET RSP TIMEOUT	System setup data setup response Timeout	
C	C244	RESERVE	Reservation	
C	C245	DATE GET RSP NG	Time layout setup data obtain response NG	
C	C246	DATE GET RSP TIMEOUT	Time layout setup data obtain response Timeout	
C	C247	DATE SET RSP NG	Time layout setup data setup response NG	
C	C248	DATE SET RSP TIMEOUT	Time layout setup data setup response Timeout	
C	C249	RESERVE	Reservation	
C	C250	DENSITY GET RSP NG	Densitometer data obtain response NG	
C	C251	DENSITY GET RSP TIMEOUT000	Densitometer data setup response Timeout	
C	C252	DENSITY SET RSP NG	Densitometer data setup response NG	
C	C253	DENSITY SET RSP TIMEOUT	Densitometer data setup response Timeout	
C	C254	RESERVE	Reservation	
C	C255	DENSITY R GET RSP NG	Densitometer results data obtain response NG	
C	C256	DENSITY R GET RSP TIMEOUT	Densitometer results data obtain response Timeout	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	C257	RESERVE	Reservation	The problem may be solved by rebooting the system. Collect the log.
C	C258	QUE INIT RSP NG	Queue data initialize response NG	
C	C259	QUE INIT RSP TIMEOUT	Queue data initialize response Timeout	
C	C260	RESERVE	Reservation	
C	C261	PREV MNT GET RSP NG	Maintenance schedule data obtain response NG	
C	C262	PREV MNT GET RSP TIMEOUT	Maintenance schedule data obtain response Timeout	
C	C263	PREV MNT SET RSP NG	Maintenance schedule data setup response NG	
C	C264	PREV MNT SET RSP TIMEOUT	Maintenance schedule data setup response Timeout	
C	C265	RESERVE	Reservation	
C	C266	PRODUCT GET RSP NG	Product setup data obtain response NG	
C	C267	PRODUCT GET RSP TIMEOUT	Product setup data obtain response Timeout	
C	C268	PRODUCT SET RSP NG	Product setup data setup response NG	
C	C269	PRODUCT SET RSP TIMEOUT	Product setup data setup response Timeout	
C	C270	RESERVE	Reservation	
C	C271	MECH GET RSP NG	MEC setup data obtain response NG	
C	C272	MECH GET RSP TIMEOUT	MEC setup data obtain response Timeout	
C	C273	MECH SET RSP NG	MEC setup data setup response NG	
C	C274	MECH SET RSP TIMEOUT	MEC setup data setup response Timeout	
C	C275	RESERVE	Reservation	
C	C276	HEAT GET RSP NG	HPRO setup data obtain request NG	
C	C277	HEAT GET RSP TIMEOUT	HPRO setup data obtain request Timeout	
C	C278	HEAT SET RSP NG	HPRO setup data setup response NG	
C	C279	HEAT SET RSP TIMEOUT	HPRO SETUP data setup response Timeout	
C	C280	RESERVE	Reservation	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	C281	IMG ADJUST GET RSP NG	Image adjust data obtain response NG	The problem may be solved by rebooting the system. Collect the log.
C	C282	IMG ADJUST GET RSP TIMEOUT	Image adjust data obtain response Timeout	
C	C283	IMG ADJUST SET RSP NG	Image adjust data setup response NG	
C	C284	IMG ADJUST SET RSP TIMEOUT	Image adjust data setup response Timeout	
C	C285	RESERVE	Reservation	
C	C286	PATCH GET RSP NG	Correction data obtain response NG	
C	C287	PATCH GET RSP TIMEOUT	Correction data obtain response Timeout	
C	C288	PATCH SET RSP NG	Correction data setup response NG	
C	C289	PATCH SET RSP TIMEOUT	Correction data setup response Timeout	
C	C290	RESERVE	Reservation	
C	C291	ERR LIST GET RSP NG	Error history data obtain response NG	
C	C292	ERR LIST GET RSP TIMEOUT	Error history data obtain response Timeout	
C	C293	RESERVE	Reservation	
C	C294	DATA INIT GET RSP NG	Data initialize response NG	
C	C295	DATA INIT GET RSP TIMEOUT	Data initialize response Timeout	
C	C296	RESERVE	Reservation	
C	C297	LOGIN MNT RSP NG	Login maintenance shift response NG	
C	C298	LOGIN MNT RSP TIMEOUT	Login maintenance shift response Timeout	
C	C299	RESERVE	Reservation	
C	C300	LOGOUT MNT RSP NG	Logout maintenance cancel response NG	
C	C301	LOGOUT MNT RSP TIMEOUT	Logout maintenance cancel response Timeout	
C	C302	RESERVE	Reservation	
C	C303	MNT MODE RSP NG	Maintenance shift response NG	
C	C304	MNT MODE RSP TIMEOUT	Maintenance shift response Timeout	
C	C305	RESERVE	Reservation	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	C306	MNT CANCEL RSP NG	Maintenance shift cancel response NG	The problem may be solved by rebooting the system. Collect the log.
C	C307	MNT CANCEL RSP TIMEOUT	Maintenance shift cancel response Timeout	
C	C308	RESERVE	Reservation	
C	C309	QC GET RSP NG	QC data obtain request NG	
C	C310	QC GET RSP TIMEOUT	QC data obtain request Timeout	
C	C311	RESERVE	Reservation	
C	C312	LOGO GET RSP NG	Logo setup data obtain response NG	
C	C313	LOGO GET RSP TIMEOUT	Logo setup data obtain response Timeout	
C	C314	LOGO SET RSP NG	Logo setup data setup response NG	
C	C315	LOGO SET RSP TIMEOUT	Logo setup data setup response Timeout	
C	C316	RESERVE	Reservation	
C	CE00	DCHK INIT ERROR	Cannot secure shared memory. (1)	
C	CE01	DCHK INIT ERROR	Cannot secure shared memory. (2)	
C	CE02	DCHK INIT ERROR	Cannot secure shared memory. (3)	
C	CE10	DCHK CH NO ERR	Channer number error	Check the send contents. Collect the log.
C	CE11	DCHK FILM SESSION ERROR	Film session error	
C	CE12	DCHK FILM BOX ERROR	Film box error	Check the send contents. Collect the log.
C	CE13	DCHK IMAGE BOX ERROR	Image box error	
C	CE14	DCHK CUSTOM FORMAT ERROR	Custom format error	
C	CE15	DCHK POSITION ERROR	Position information error	
C	CE20	DCHK IMAGE BOX ERROR	IMAGE BOX image position error	
C	CE21	DCHK IMAGE BOX ERROR	IMAGE BOX polarity error	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	CE22	DCHK IMAGE BOX ERROR	IMAGE BOX pixel assign bit number error	Check the send contents. Collect the log.
C	CE23	DCHK IMAGE BOX ERROR	IMAGE BOX pixel bit number Error	
C	CE24	DCHK IMAGE BOX ERROR	IMAGE BOX High order bit error	
C	CE25	DCHK IMAGE BOX ERROR	IMAGE BOX pixel data expression Error	
C	CE26	DCHK IMAGE BOX ERROR	IMAGE BOX optical measurement construction error	
C	CE30	DCHK FILM BOX ERROR	FILM BOX format check error	
C	CE31	DCHK FILM BOX ERROR	FILM BOX film orientation error	
C	CE32	DCHK FILM BOX ERROR	FILM BOX film size error	
C	CE33	DCHK FILM BOX ERROR	FILM BOX Image Format information (STANDARD) error	
C	CE34	DCHK FILM BOX ERROR	FILM BOX Image Format information (ROW) error	
C	CE35	DCHK FILM BOX ERROR	FILM BOX Image Format information (SLIDE) error	
C	CE36	DCHK FILM BOX ERROR	FILM BOX Image Format information (CUSTOM) error	
C	CE37	DCHK FILM BOX ERROR	FILM BOX magnification method error	
C	CE38	DCHK FILM BOX ERROR	FILM BOX interpolation function type error	
C	CE40	DCHK STANDARD MAG	Image magnification error (0.8~15.7)	
C	CE41	DCHK STANDARD REQIMAGE MAG	Image magnification error (0.8~15.7)	
C	CE42	DCHK STANDARD CROP MAG	Image magnification error (0.8~15.7)	
C	CE43	DCHK ROW MAG	Image magnification error (0.8~15.7)	
C	CE44	DCHK ROW REQIMAGE MAG	Image magnification error (0.8~15.7)	
C	CE45	DCHK ROW CROP MAG	Image magnification error (0.8~15.7)	
C	CE46	DCHK CUSTOM MAG	Image magnification error (0.8~15.7)	

Error Level	Error Code	Error Message (Display Characters)	Error contents	Error Support: Service
C	CE47	DCHK CUSTOM REQIMAGE MAG	Image magnification error (0.8~15.7)	Check the send contents. Collect the log.
C	CE48	DCHK CUSTOM CROP MAG	Image magnification error (0.8~15.7) +E476	
C	CE49	DCHK EXPANSION ERROR	Image expansion error (other)	
C	CE50	DCHK COLUMS LESS THAN 64	Columns are less than 64PIXELS	
C	CE51	DCHK ROWS LESS THAN 64	Rows are less than 64PIXELS	
C	CE52	DCHK IMAGE SIZE OVER	Total number of pixels exceeds 76608336.	
C	CE53	DCHK FILM TYPE ERROR	Film type is not supported	
C	CE54	DCHK IMAGE BOX ERROR	SMOOTH=Exceeds 7 hour expansion image area	
C	CE55	DCHK IMAGE BOX ERROR	Exceeds expansion image area in MAG_NONE	
C	CE60	DCHK FILM BOX ERROR	FILM BOX trim error	
C	CE61	DCHK FILM BOX ERROR	FILM BOX contrast error	
C	CE62	DCHK FILM BOX ERROR	FILM BOX density error	
C	CE63	DCHK FILM BOX ERROR	FILM BOX glossy error	

17.2.2 Display and solutions for MainteTool

No.	Display Message	Meaning	Solution
1	This application has already been activated.	Double activation error (tried to activate MainteTool, even though it was already activated)	Use the MainteTool that was activated already.
2	Current PATH get error	Current PATH get error (failure to get current PATH at the startup)	Restart the PC.
3	MainteTool.ini file does not exist. Please create the file.	No MainteTool.ini file (initial setup file) error	UPGRADE to most current version.
4	IP address of PC for PLNK5 is not set.	IP address of PLNK5-PC not set error	UPGRADE to most current version.
5	Socket Initialization Error. This application will be exit.	Socket initialization error	Restart the PC.
6	Socket Connection Error. This application will be exit.	Socket connection error	Restart the PC.
7	Please input a password.	No passowrd entered error	Enter the password.
8	Password is invalid.	Password error	Enter the correct password.
9	Login Failure.	Login process failed	UPGRADE to most current version.
10	Login Failure (Password mismatch for DRYPRO832-1).	Login process failed (password for DRYPRO832-1 does not match)	UPGRADE to most current version.
11	Login Failure (Other user logged in DRYPRO832-1).	Login process failed (other user already logged in to DRYPRO832-1)	Try again after the logged in user logs out.
12	Login Failure (Password mismatch for DRYPRO832-2).	Login process failed (password for DRYPRO832-2 does not match)	UPGRADE to most current version.
13	Login Failure (Other user logged in DRYPRO832-2).	Login process failed (other user already logged in to DRYPRO832-2)	Try again after the logged in user logs out.
14	Login Failure (PLNK5).	Login process failed (failed on start request for PLNK5 maintenance)	UPGRADE to most current version.
15	Login Failure (DRYPR832-PC).	Login process failed (failed on start request for DRYPRO832PC maintenance)	UPGRADE to most current version.
16	Login Failure (DRYPRO832-1).	Login process failed (failed on start request for DRYPRO832-1 maintenance)	UPGRADE to most current version.
17	Login Failure (DRYPRO832-2).	Login process failed (failed on start request for DRYPRO832-2 maintenance)	UPGRADE to most current version.
18	Login Failure (Other user logged in PLNK).	Login process failed (other user already logged in to PLINK5)	Try again after the logged in user logs out.
19	Login Failure (Other user logged in DRYPRO832-1). Login Failure (Other user logged in DRYPRO832-2).	Login process failed (other user already logged in to DRYPRO832-1, DRYPRO832-2)	Try again after the logged in user logs out.
20	Login Failure (Other user logged in DRYPRO832-1). Login Failure (DRYPRO832-2).	Login process failed (other user already logged in to DRYPRO832-1, failed on start request for DRYPRO832-2 maintenance)	• Try again after other user logs out from DRYPRO832-1 • UPGRADE to most current version.
21	Login Failure (DRYPRO832-1). Login Failure (DRYPRO832-2).	Login process failed (failed on start request for DRYPRO832-1, DRYPRO832-2)	UPGRADE to most current version.
22	Login Failure (DRYPRO832-1). Login Failure (Other user logged in DRYPRO832-2).	Login process failed (failed on start request for DRYPRO832-1, other user already logged in to DRYPRO832-2)	• Try again after other user logs out from DRYPRO832-2. • UPGRADE to most current version.

No.	Display Message	Meaning	Solution
23	Upgrade beginning OK ? UPGRADE FILE	Upgrade file confirmation message	Press the OK button.
24	Setup backup request failure (PLNK5).	Setup backup request failed (PLNK5)	Restart the PC.
25	Setup backup file compression failure (PLNK5).	Setup backup file compression failed (PLNK5)	Restart the PC.
26	Setup backup file does not exist (PLNK5).	Setup backup file does not exist (PLNK5)	Restart the PC.
27	Setup backup request failure (DRYPRO832-1).	Setup backup request failed (DRYPRO832-1)	Restart the PC and DRYPRO832-1.
28	Setup backup file compression failure (DRYPRO832-1).	Setup backup file compression failed (DRYPRO832-1)	Restart the PC and DRYPRO832-1.
29	Setup backup request failure (DRYPRO832-2).	Setup backup request failed (DRYPRO832-2)	Restart the PC and DRYPRO832-2.
30	Setup backup file compression failure (DRYPRO832-2).	Setup backup file compression failed (DRYPRO832-2)	Restart the PC and DRYPRO832-2.
31	Setup restoration completed!! Target System Restart. And MainteTool Shutdown.	Setup restoration complete message	—
32	Setup restoration request failure (PLNK5).	Setup restoration request failed (PLNK5)	Restart the PC.
33	Setup restoration file decompression failure (PLNK5).	Setup restoration file decompression failed (PLNK5)	Restart the PC.
34	Setup restoration request failure (DRYPRO832-1).	Setup restoration request failed (DRYPRO832-1)	Restart the PC and DRYPRO832-1.
35	Setup restoration file decompression failure (DRYPRO832-1).	Setup restoration file decompression failed (DRYPRO832-1)	Restart the PC and DRYPRO832-1.
36	Setup restoration request failure (DRYPRO832-2).	Setup restoration request failed (DRYPRO832-2)	Restart the PC and DRYPRO832-2.
37	Setup restoration file decompression failure (DRYPRO832-2).	Setup restoration file decompression failed (DRYPRO832-2)	Restart the PC and DRYPRO832-2.
38	Log compression failure (PLNK5).	Log compression failed (PLNK5)	Restart the PC.
39	Object file does not exist (PLNK5).	Object file does not exist (PLNK5)	Confirm if the period entered when collecting the log was correct.
40	Log compression failure (DRYPRO832 PC-1).	Log compression failed (DRYPRO832 PC-1)	Restart the PC.
41	Object file does not exist (DRYPRO832 PC-1).	Object file does not exist (DRYPRO832 PC-1)	Confirm if the period entered when collecting the log was correct.
42	Log compression failure (DRYPRO832 PC-2).	Log compression failed (DRYPRO832 PC-2)	Restart the PC.
43	Object file does not exist (DRYPRO832 PC-2).	Object file does not exist (DRYPRO832 PC-2)	Confirm if the period entered when collecting the log was correct.
44	Log collection request failure (DRYPRO832-1).	Log collection request failed (DRYPRO832-1)	Restart the PC and DRYPRO832-1.
45	Log compression failure (DRYPRO832-1).	Log compression failed (DRYPRO832-1)	Restart the PC and DRYPRO832-1.
46	Object file does not exist (DRYPRO832-1).	Object file does not exist (DRYPRO832-1)	Confirm if the period entered when collecting the log was correct.
47	Log collection request failure (DRYPRO832-2).	Log collection request failed (DRYPRO832-2)	Restart the PC and DRYPRO832-2.
48	Log compression failure (DRYPRO832-2).	Log compression failed (DRYPRO832-2)	Restart the PC and DRYPRO832-2.

No.	Display Message	Meaning	Solution
49	Object file does not exist (DRYPRO832-2).	Object file does not exist (DRYPRO832-2)	Confirm if the period entered when collecting the log was correct.
50	Log compression failure (MAINTE).	Log compression failed (MainteTool)	Restart the PC.
51	Object file does not exist (MAINTE).	Object file does not exist (MainteTool)	Confirm if the period entered when collecting the log was correct.
52	Please select CH NO.	Request to select CHNo.	Select the CH NO.
53	Job data collection failure.	Job data collection failed	Restart the PC.
54	Job data compression failure.	Job data compression failed	Restart the PC.
55	Object file does not exist.	Object file does not exist	Confirm if the period and the CH NO. entered when collecting the job data was correct.
56	Number of object files exceeded (Max 20 data).	Too many number of object files (20 data)	Decrease the period so the number of files will be 20 or less.
57	Please wait a while. Now terminating MEC I/O test ...	Terminating MEC I/O test	—
58	Test number is invalid. (Test number is 0 to 239)	Invalid test number (number should be between 0 and 239)	Set the value for test number from 0 to 239.
59	TPRINT I/O test failure. Please execute again.	Print I/O test failed	Try again.
60	Restore file unset error.	Restore file unset error	Specify the file to restore in the restore dialog box.
61	Restore file does not exist.	Restore file does not exist	Specify the file name that is on the disc.
62	Restore file name error. The serialno is different.	Restore file type error (different serial number)	Confirm if the serial number in the file name matches the serial number of the device.
63	Restore file name error. The extension is different(.zip).	Restore file type error (different file extension, .zip)	Specify the file with a .zip file extension.
64	Restore file name error. The extension is different(.tgz).	Restore file type error (different file extension, .tgz)	Specify the file with a .tgz file extension.
65	Please check that Mainte_Tool folder is set to sharing.	Confirm Mainte_Tool folder sharing setup	Set to share the Mainte_Tool folder.
66	Date is not input. Please input.	Date is not entered	Enter the date.
67	The date of From exceeds the date of To.	Date in From exceeds the date in To (Date in From should be before the date in To)	Make the date in From before the date in To.
68	Please input correct 'Year'.	Value in “Year” is invalid	Enter correct value for “Year”.
69	Please input correct 'Month'.	Value in “Month” is invalid	Enter correct value for “Month”.
70	Please input correct 'Day'.	Value in “Day” is invalid	Enter correct value for “Day”.
71	Please input correct 'Hour'.	Value in “Hour” is invalid	Enter correct value for “Hour”.
72	Please input correct 'Minute'.	Value in “Minute” is invalid	Enter correct value for “Minute”.
73	Please wait a while ...	Processing message	—
74	Please wait a while. Now file is being copied ...	File copying message	—
75	Completed!!	Completion message	—

No.	Display Message	Meaning	Solution
76	Communication was aborted (PLNK5-PC).	Communication with PLNK5 was aborted (periodical communication error)	Restart the PC.
77	Communication was aborted (DRYPRO832-1).	Communication with DRYPRO832-1 was aborted (periodical communication error)	Restart the PC.
78	Communication was aborted (DRYPRO832-2).	Communication with DRYPRO832-2 was aborted (periodical communication error)	Restart the PC.
79	This application will be exit.	Application exit message	—
80	Data will not be saved.	Data is not saved	• Confirm if specified folder is correct. • Restart the PC.
81	Send data timeout error.	Send data timeout error (cannot send within specific time)	Restart the PC.
82	Send data retry error.	Send data error (send failure except timeout error)	Restart the PC.
83	Receive data timeout error.	Receive data timeout error (cannot receive within specific time)	Restart the PC.
84	Receive data retry error.	Receive data error (receive failure except timeout error)	Restart the PC.
85	Receive data analysis error.	Receive data analysis error (received invalid data)	Restart the PC.

17.3 DRYPRO 832 Unit Replacement Procedure

This chapter provides the replacement procedure used when it is necessary to replace DRYPRO 832 units.

■ DRYPRO 832 Unit Malfunction

If the DRYPRO 832 unit has a malfunction, follow the procedure below to replace the unit.

Error occurred a DRYPRO 832	
↓	
Replace the DRYPRO 832 unit	Refer to "17.3.3 Replacing the DRYPRO 832 (Page 17-82)" for the replacement procedure.

■ Control BOX Malfunction

If the control BOX has a malfunction, follow the procedure below to replace the unit.

Error occurred at control BOX	
↓	
Replace the main board	Refer to "17.3.1 Replacing Main Board (Page 17-63)" for the replacement procedure.
↓	• If this does not solve the problem, proceed to the next step
Replace the compact flash	Refer to "17.3.2 Replacing the Compact Flash (CF) (Page 17-64)" for the replacement procedure.
↓	• If this does not solve the problem, proceed to the next step
Replace the DRYPRO 832 unit	Refer to "17.3.3 Replacing the DRYPRO 832 (Page 17-82)" for the replacement procedure.

■ Printlink5-IN Malfunction

If the Printlink5-IN has a malfunction, follow the procedure below to replace the unit.

Error occurred at Printlink5-IN	
↓	
Replace Printlink5-IN	Refer to "17.3.4 Replacing Printlink5-IN (Page 17-95)" for the replacement procedure.

■ MEC Board Malfunction

If the MEC board has a malfunction, follow the procedure below to replace the unit.

Error occurred at the MEC board	
↓	
Replace the MEC board	Refer to "17.3.5 Replacing the MEC Board (Page 17-106)"for the replacement procedure.
↓	• If this does not solve the problem, proceed to the next step
Replace the DRYPRO 832 unit	Refer to "17.3.3 Replacing the DRYPRO 832 (Page 17-82)" for the replacement procedure.

17.3.1 Replacing Main Board

Follow the procedure below to replace the main board.

> **Caution** Continue to use the compact flash (CF) that was used previously.

Requirements

Prepare following when replacing main board.

No.	Requirements	No.	Requirements
1	Replacement main board	2	DRYPRO 832 Operation Manual
3	DRYPRO 832 Repair Manual		

START	
↓	
Exit the DRYPRO 832	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the power source breaker OFF.
↓	
Remove the old main board	Refer to "11.3 Replacing Main Board (Page 11-7)" to remove the old main board from the DRYPRO 832 unit.
↓	
Install the compact flash	Refer to "11.4 Replacing Compact Flash (Page 11-11)" to remove the compact flash installed on the old main board and install it to the new main board.
↓	
Install a new main board	Refer to "11.3 Replacing Main Board (Page 11-7)" to install the new main board with a compact flash installed, to the DRYPRO 832 unit.
↓	
Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.
↓	
END	

17.3.2 Replacing the Compact Flash (CF)

Note

Method for replacing the compact flash (CF) is different depending on the software version of the DRYPRO 832.

- Refer to "■ Replacing Compact Flash (Up to V1.01) (Page 17-64)" if the software version is up to V1.01.
- Refer to "■ Replacing Compact Flash (V1.02 or Later) (Page 17-73)" if the software version is V1.02 or later.

■ Replacing Compact Flash (Up to V1.01)

Note

This procedure is the replacing method when the software version of the DRYPRO 832 is up to V1.01. Refer to "■ Replacing Compact Flash (V1.02 or Later) (Page 17-73)" if the software version is V1.02 or later.

For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the compact flash.

Caution

- Before replacing the compact flash, replace the main board as shown in "17.3.1 Replacing Main Board (Page 17-63)", and check that the DRYPRO 832 main unit starts up normally.
- If there are IP Addresses "192.168.20.161" or "192.168.20.179" used in the same network environment of the facility, you need to release these IP addresses before the procedure.
- Data for "Film Count" and/or "Maintenance Schedule" may be lost if the procedure is not carried out correctly. Loaded film needs to be discarded and newly loaded when the data is lost, so take note of the "Film Count" and "Maintenance Schedule" before starting the procedure.

  For details, refer to "15.9 Film Setup (Page 15-20)", "15.14 Maintenance Schedule (Page 15-31)", and "15.9 Film Setup (Page 15-20)".

Requirements

Prepare following when replacing compact flash (CF).

No.	Requirements	No.	Requirements
1	Replacement compact flash (V1.01 or later)	2	Upgrading file (V1.01 or later)
3	Backup file (DRYPRO 832)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

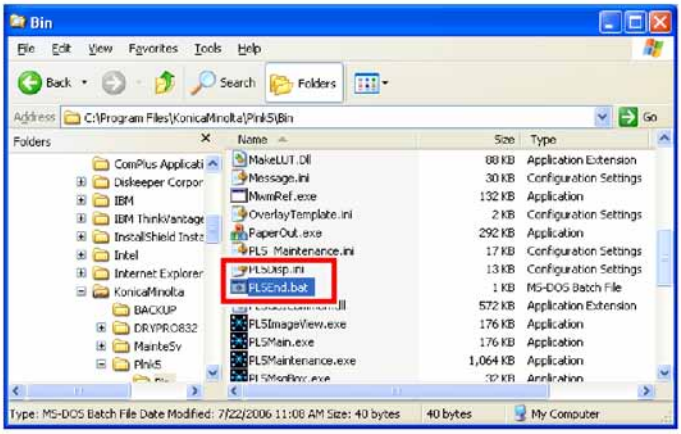
START

Check the status	In order to check the status check setup items, start the DRYPRO 832 and server PC (Printlink5 or CS-2 or CS-3), and check the connection status. • For information on connecting the devices, see "Chapter 4 Setting Up the Network" in the installation manual. • For information on connecting the power supply, see "Chapter 3.7 DRYPRO 832 Startup Checks" in the installation manual.
Exit the application (Only for CS-2 and CS-3)	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.

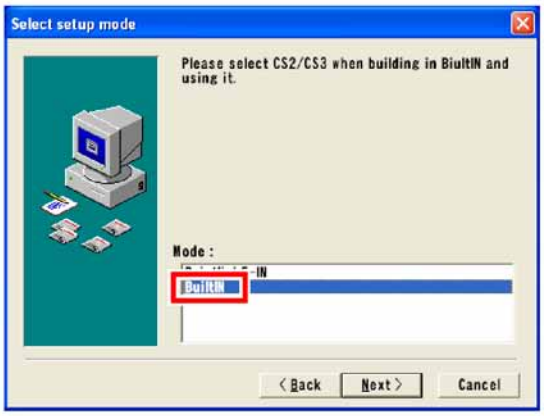
Check the current settings	Start the DRYPRO 832 unit, and if you can check the settings from the Printlink5-IN, check the following items from the DRYPRO 832 Utility Tool Maintenance menu window and make a note of them.
	• Film setup
	  • Number of sheets of film remaining in the tray
	• MAINTENANCE SCHEDULE
	  • MAINTENANCE SCHEDULE (ELAPSED TIME, PRINTED SHEETS)
	• Product Setup
	  • SIZE FINE TUNING (H, V, requested size)
	  • Non-uniform Lens Correction

	Caution: If the Lispl-832 is connected, setup in the same way and make a note of the settings.
Exit the DRYPRO 832 unit	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the Power source breaker OFF
Replace the compact flash	Refer to "11.4 Replacing Compact Flash (Page 11-11)" to replace the compact flash.
Upgrading server PC	Upgrade the server PC version to a later version than [V1.01R00]. However, the upgrade procedure differs depending on the server PC (Printlink5-IN or CS-2 and CS-3). **When the server PC is CS-2 or CS-3** 1. Before upgrading the software, click the [Help] tab on the "Prinlink5 Maintenance Main Window" and check the current version.

2. Double-click the file below, and exit Printlink5.
   - C:￥programFiles￥KonicaMinolta￥Plnk5￥Bin￥PL5End.bat



3. Refer to "7.4.1 Uninstalling Printlink5-IN" in the installation manual to uninstall the Printlink5-IN installed on the server PC.
4. Refer to "7.3.2 Installing Printlink5-IN" in the installation manual, and install a version of Prinlink5 later than [V1.01R00] in the server PC.
   However, select "Built IN" in the "Mode select" window at installation.



If the installation completes normally, the server PC will automatically restart.
During the restart a DRYPRO 832 connection error will be displayed. Click the [Yes] button, and close the dialog box.

When the server PC is Printlink5-IN

1. Refer to "16.4 Upgrade Information (Page 16-12)" and upgrade the software.
   If the installation completes normally, the server PC will automatically restart.

Note	During the restart a DRYPRO 832 connection error will be displayed. Click the [Yes] button, and close the dialog box.

Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.
Note	However, if the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

Exit the application (Only for CS-2 and CS-3)	Refer to "How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.

Initializing network settings	If the compact flash is replaced, the DRYPRO 832 network settings return to the factory settings. For this reason, return the Printlink5-IN network settings to the factory settings.

Caution

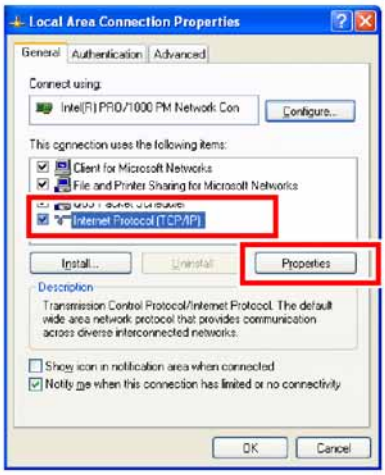
Check that following IP Address is not the same as another IP address within the facility.

- IP address: 192.168.20.179
- Subnet mask: 255.255.255.0

1. Select [Start] - [Control Panel] - [Network Connections] from the WindowsXP desktop.
   The network connections window opens.
2. Right-click on “Local Area Connection”, and select “Properties” from the pull down menu.

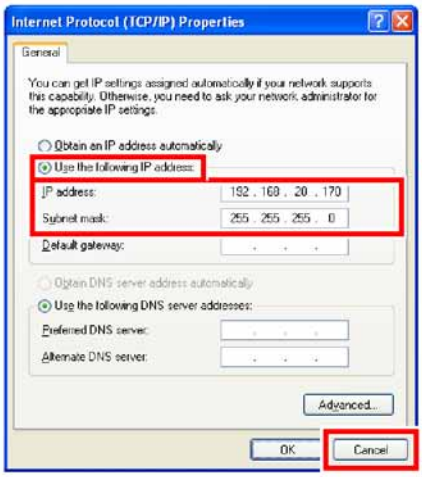
“Local Area Connection Properties” dialog box is displayed.

3. Select “Internet Protocol (TCP/IP)” from “This connection uses the following items:”, and click the [Properties] button.



“Internet Protocol (TCP/IP) Properties” dialog box is displayed.

4. Set the [Use the following IP address] radio button to ON and enter the factory setting IP address and subnet mask.
5. Click the [OK] button and then the [Close] button.

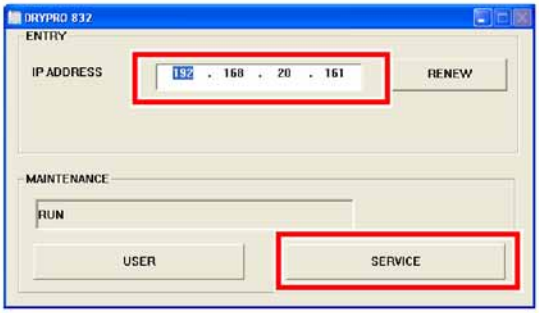


Setting up Network

Setup the network.
However, the network setup procedure differs depending on the server PC (Printlink5-IN or CS2 and CS-3).

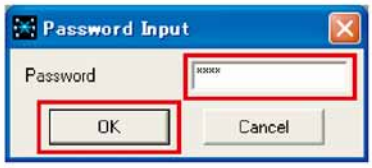
When the server PC is CS-2 or CS-3

1. Startup the CS-2 or CS-3.
   After starting up WindowsXP, a dialog box is displayed.
2. Check that the factory IP address (192.168.20.161) is entered in the [IP ADDRESS] entry field, and click the [SERVICE] button.



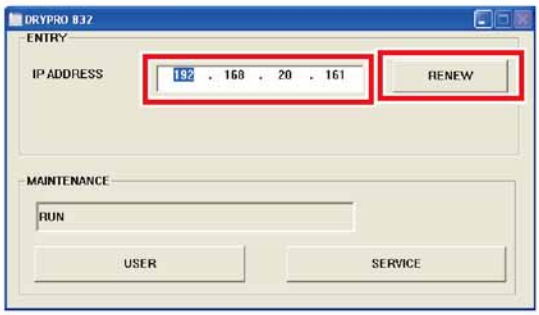
"Enter Password" dialog box is displayed.

3. Enter "5678" in the [Password] entry field, and click the [OK] button.



The main window of the DRYPRO 832 Utility Tool is displayed.
License registration is required for the oversea version.

4. Refer to step 1 to 10 in "4.2.6 Changing the Facility Network Settings" in the installation manual, and change to the facility network setting.
5. Click the [BACK] button on the main window of the DRYPRO 832 Utility Tool.
6. Enter the new IP address that you set for the imager into the "IP ADDRESS" entry field in the dialog box below, and click the [RENEW] button.



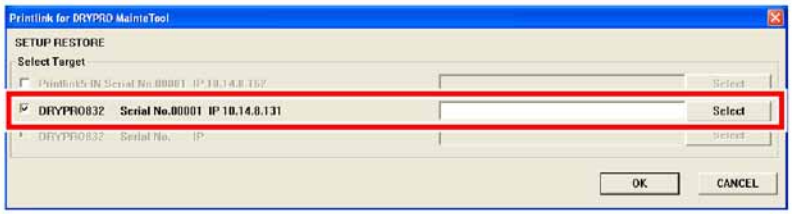
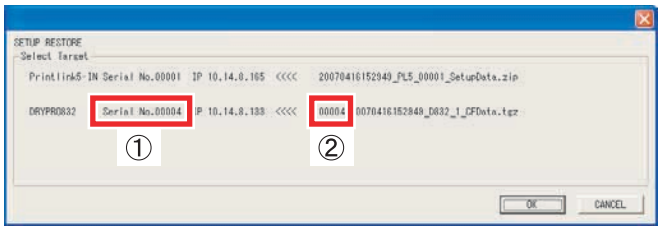
7. Check that a connection has been established with the imager.
8. Close all of the windows, and restart the server PC.

When the server PC is Printlink5-IN

1. Refer to step 1 to step 11 of "4.2.5 Printlink5-IN Imager Output Channel Settings" in the installation manual, and setup the imager output channel.
   However, in the "Imager Output channel set" window in step 5, enter "192.168.20.161" into the "DRYPRO 832 IP Address" entry field.

The server PC is restarted.

Exit the application (Only for CS-2 and CS-3)	Refer to "How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.

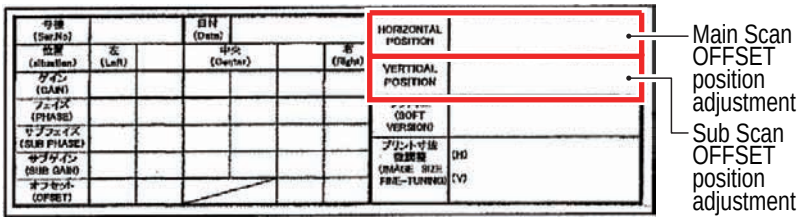
Restore the setup	Refer to "16.6 Restoring Settings (Page 16-26)" to restore the setup. 
Caution	• Perform the restore for the DRYPRO 832. Do not restore Printlink5. • If any error occurs during the restore, restart the server PC and redo the restore. • DRYPRO 832 might restart. In that case, execute the restore after it has restarted. • Check that the serial number of DRYPRO 832 ① is same as the serial number of the backup file ② in following setup restore window.  Check the serial number of the device on the label if ① and ② are different. If the serial number on the label is different from ① , there is a chance that there was a mistake in unit selection in previous "Selecting Replaced Unit". Refer to "● When Mistake was Made Selecting Replaced Unit (Page 17-79)" and execute restore. If the serial number on the label is same with ① , there is a chance that there was a mistake in selection of the backup. Select the backup file with same serial number as above ① . If there is no backup file, DRYPRO 832 needs to be replaced. For details, refer to "17.3.3 Replacing the DRYPRO 832 (Page 17-82)".
Film Count Settings	Set the film count. **If you do not have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", and set the film count to 0. 2. Refer to "5.3 Film Loading" in the installation manual, discard the remaining film from the supply tray, and re-load the film. **If you have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", enter the film count from your notes.
Caution	• If the Lispl-832 is connected, set the Lispl-832 in the same way. • If the actual film count and set film count differ, a pickup malfunction will occur when the film tray is empty.

Setting the Maintenance Schedule (ELAPSED TIME, PRINTED SHEETS)	Setup the maintenance schedule. **If you do not have notes on the maintenance schedule (elapsed time, printed sheets)** 1. Calculate an appropriate value for the elapsed time and printed sheets from the installation date, first scheduled maintenance date, and daily film output status for the facility, refer to "15.14 Maintenance Schedule (Page 15-31)", and set the values. **If you have notes on the maintenance schedule (elapsed time, printed sheets)** 1. Refer to "15.14 Maintenance Schedule (Page 15-31)", and enter the elapsed time and printed sheets values from your notes.
	Caution: If the Lispl-832 is connected, set the Lispl-832 in the same way.

↓

Enter the label of the control BOX.	Refer to "■ Work after replacing the exposure unit (Page 8-5)" in the "8.2 Replacing Exposure Unit", re-enter the product setup items according to the label attached to the control BOX. For PRODUCT SETUP, refer to "15.17 Product Setup (Page 15-37)".

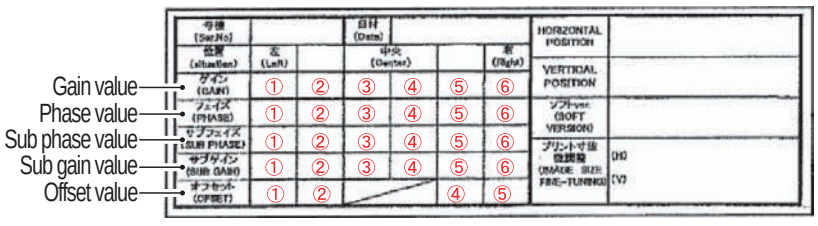
↓

Set the image writing position	Refer to"14.2 Checking and Adjusting Image Data Writing Position (Page 14-13)", re-enter the product setup items according to the label attached to the exposure unit.  For PRODUCT SETUP, refer to "15.17 Product Setup (Page 15-37)".

↓

Setting SIZE FINE TUNING (H) SIZE FINE TUNING (V) SIZE FINE TUNING (Requested Size)	Set each value for SIZE FINE TUNING. **If you do not have notes on setting values** 1. Refer to "14.3 Checking and Fine Tuning the Print Size (Page 14-17)", and adjust the SIZE FINE TUNING (H) and SIZE FINE TUNING (V). 2. Refer to "15.17 Product Setup (Page 15-37)" and adjust SIZE FINE TUNING (requested size). **If you have notes on setting values** 1. Refer to "15.17 Product Setup (Page 15-37)" and enter the values from your notes into SIZE FINE TUNING (H), SIZE FINE TUNING (V), and SIZE FINE TUNING (requested size).

↓

Set the correction	Refer to "14.1.1 Density Correction (Page 14-3)", re-enter the correction items according to the label attached to the control BOX. 
	Note: There is no need to print here.

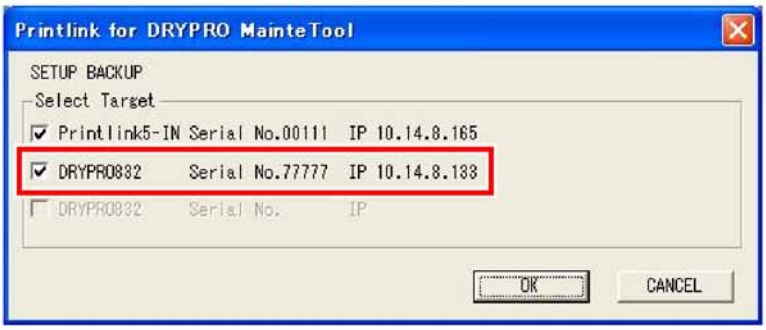
↓

Checking the image quality	Refer to "5.4 Checking Image Quality", "5.5 Checking Density Linearity", and "5.6 Creating QC Pattern Base" in the installation manual, and check the image quality.
	Caution: When replacing the compact flash, always perform "5.5.3 Internal Densitometer Correction". However, if there are no densitometers in the facility, you will need to take it for correction. When aligning with a densitometer in the facility, use the facility densitometer internally.

↓

Set the logo	Refer to "5.9 Logo Setup" in the installation manual to set the logo to be output on a film.

↓

Backup the setup	Refer to "Chapter 6: Backing up Setup" in the installation manual to backup the setup data using the MainteTool. 

↓

Creating duplicate data	Refer to "15.17 Product Setup (Page 15-37)" and note the following numerical values. • SERIAL NO. • SIZE FINE TUNING (H) • SIZE FINE TUNING (V) • SIZE FINE TUNING (Requested size)

↓

END

■ Replacing Compact Flash (V1.02 or Later)

Note

This procedure is the replacing method when the software version of the DRYPRO 832 is V1.02 or later. Refer to "■ Replacing Compact Flash (Up to V1.01) (Page 17-64)" if the software version is up to V1.01.

For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the compact flash.

Caution

- Before replacing the compact flash, replace the main board as shown in "17.3.1 Replacing Main Board (Page 17-63)", and check that the DRYPRO 832 main unit starts up normally.
- If there are IP Addresses "192.168.20.161" or "192.168.20.179" used in the same network environment of the facility, you need to release these IP addresses before the procedure.
- Data for "Film Count" and/or "Maintenance Schedule" may be lost if the procedure is not carried out correctly. Loaded film needs to be discarded and newly loaded when the data is lost, so take note of the "Film Count" and "Maintenance Schedule" before starting the procedure.
  For details, refer to "15.9 Film Setup (Page 15-20)", "15.14 Maintenance Schedule (Page 15-31)", and "15.9 Film Setup (Page 15-20)".

Requirements

Prepare following when replacing compact flash (CF).

No.	Requirements	No.	Requirements
1	Replacement compact flash (V1.02 or later)	2	Upgrading file (V1.02 or later)
3	Backup file (DRYPRO 832)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

START

Exit the DRYPRO 832 unit	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the Power source breaker OFF.	
Replacing the compact flash	Refer to "11.4 Replacing Compact Flash (Page 11-11)" to replace the compact flash.	
Starting the server PC	If the power for the server PC is OFF, turn the power ON.	
	Caution	Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.
Exit the application (Only for CS2 and CS-3)	Refer to "7.4 How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.	
Upgrade server PC	Refer to "16.4 Upgrade Information (Page 16-12)", and upgrade the version of server PC to V1.02R00 or later. If the installation completes normally, the server PC will automatically restart.	
	Caution	Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.

Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.	
	Note	If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

↓

Selecting replaced unit	Following message is displayed in the operation panel of DRYPRO 832 when the DRYPRO 832 is started, then press the [Open/Enter] button. • "Which was changed? CF:enter MEC:reset"	
	Caution	If the [Reset/Cancel]button is pressed by mistake (selecting MEC), the actual film count and set film count will differ, and a pickup malfunction will occur when the film tray is empty. Refer to "● When Mistake was Made Selecting Replaced Unit (Page 17-79)", and recover the previous status. In that case, currently loaded film needs to be discarded and newly loaded.
	Note	• Pressing the [Open/Enter] button may cause MEC to start initialization. In that case, above message is displayed after completion. • Following message is displayed 3 minutes after above message is displayed. • "Turn OFF the power" If this message is displayed, press the operation switch and redo from previous "Start the DRYPRO 832".

↓

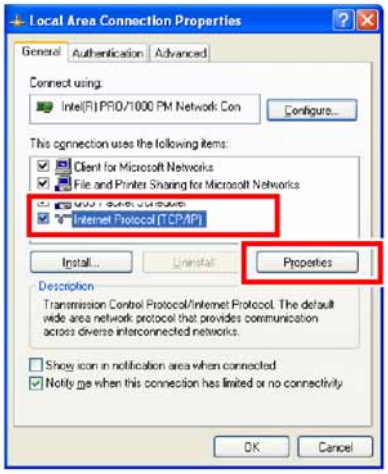
Exit the application (CS-2 and CS-3 only)	Refer to "7.4 How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.

↓

Initializing network settings	If the compact flash is replaced, the DRYPRO 832 network settings return to the factory settings. For this reason, return the Printlink5-IN network settings to the factory settings.	
	Caution	Check that the following address is not the same as another IP address within the facility. • IP address: 192.168.20.179 • Subnet mask: 255.255.255.0
	1. Select [Start] – [Control Panel] – [Network Connections] from the WindowsXP desktop. The network connections window opens. 2. Right-click on "Local Area Connection", and select "Properties" from the pull down menu. "Local Area Connection Properties" dialog box is displayed.	

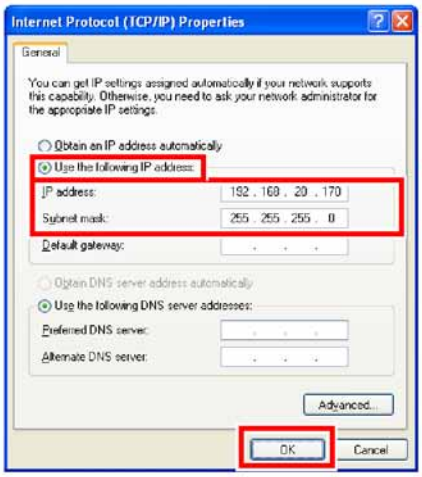
↓

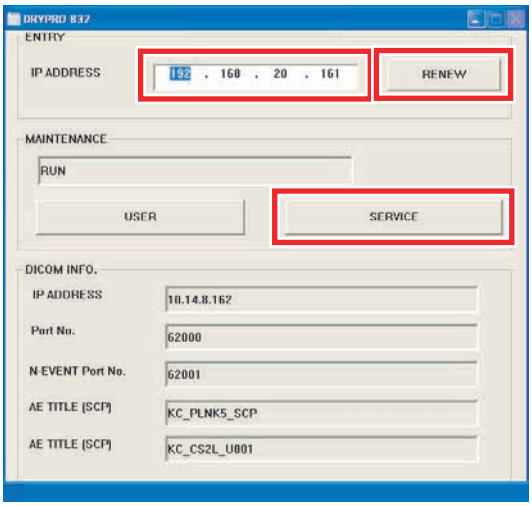
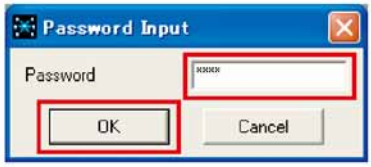
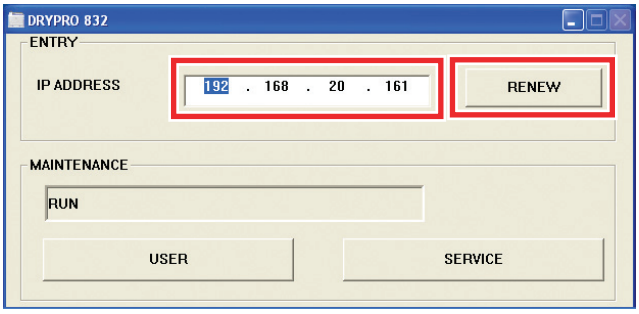
3. Select “Internet Protocol (TCP/IP)” from “This connection uses the following items:”, and click the [Properties] button.



“Internet Protocol (TCP/IP) Properties” dialog box is displayed.

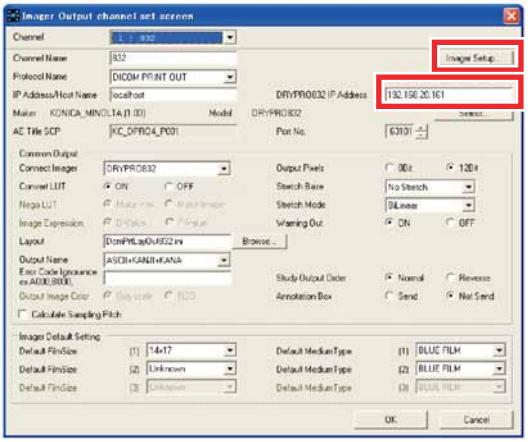
4. Set the [Use the following IP address] radio button to ON and enter the factory setting IP address and subnet mask.
5. Click the [OK] button and then the [Close] button.



Setting up Network	Setup the network. However, the network setup procedure differs depending on the server PC (Printlink5-IN or CS-2 and CS-3). **When the server PC is CS-2 or CS-3** 1. Startup the CS-2 or CS-3. After starting up WindowsXP, a dialog box is displayed. 2. Check that the factory IP address (192.168.20.161) is entered in the [IP ADDRESS] entry field, and click the [RENEW] button. 3. Click the [SERVICE] button.  "Enter Password" dialog box is displayed. 4. Enter "5678" in the [Password] entry field, and click the [OK] button.  The main window of the DRYPRO 832 Utility Tool is displayed. License registration is required for the oversea version.
Note	Upgrade of the DRYPRO 832 may start when the DRYPRO 832 Utility Tool is displayed. Once the upgrade has started, the "disconnected" status may continue for more than 2 minutes.
	5. Refer to step 1 to 10 in "4.2.6 Changing the Facility Network Settings" in the installation manual, and change the facility network settings. 6. Click the [BACK] button on the main window of the DRYPRO 832 Utility Tool. 7. Enter the new IPaddress that you set for the imager into the "IP ADDRESS" entry field in the dialog box below, and click the [RENEW] button.  8. Check that a connection has been established with the imager. 9. Close all of the windows, and restart the server PC.

When the server PC is Printlink5-IN

1. Select [SETUP] - [MAINTENANCE] in Printlink5-IN main window.
   "Enter Password" dialog box is displayed.
2. Enter "5678" in the [Password] entry field, and click the [OK] button.
3. Open the "Imager Output channel set" window, enter "192.168.20.161" into the "DRYPRO 832 IP Address" entry field, and click [Imager Setup] button.



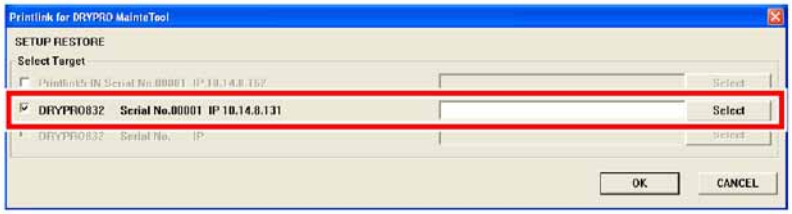
Note

Upgrade of the DRYPRO 832 may start after the [Imager Setup] button is clicked.Once the upgrade has started, the "disconnected" status may continue for more than 2 minutes.

4. Refer to "4.2.6 Change to Local Facility Network Settings" in the installation manual, and set the network.

Restore the setup

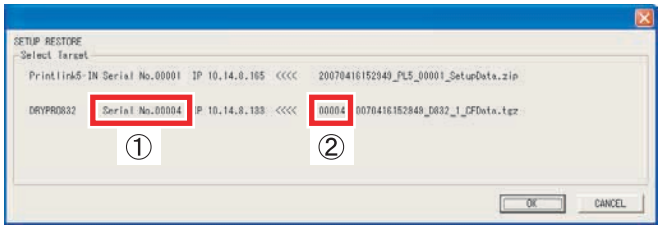
Refer to "16.6 Restoring Settings (Page 16-26)" to restore the setup.



Server PC will restart automatically when the restore completes without any problem. Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button.

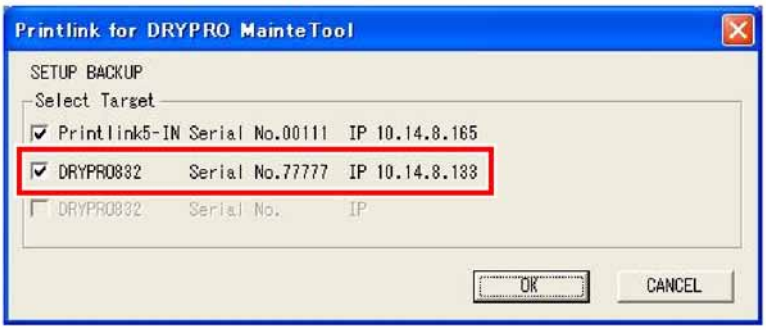
Caution

- Perform the restore for the DRYPRO 832. Do not restore Printlink5.
- If any error occurs during the restore, restart the server PC and redo the restore.
- DRYPRO 832 may restart.In that case, start the restore after the main unit has started up.

	Caution	• Check that the serial number of DRYPRO 832 ① is same as the Serial Number of the backup file ② in following setup restore window.  Check the serial number of the device on the label if ① and ② is different. If the serial number on the label is different from ① , there is a chance that there was a mistake in unit selection in previous "Selecting Replaced Unit". Refer to "● When Mistake was Made Selecting Replaced Unit (Page 17-79)", and recover the previous status. If the serial number on the label is same with ① , there is a chance that there was a mistake in selection of the backup. Select the backup file with same serial number as above ① . If there is no backup file, DRYPRO 832 needs to be replaced. For details, refer to "17.3.3 Replacing the DRYPRO 832 (Page 17-82)".

Exit the application (Only for CS-2 and CS-3)	Refer to "7.4 How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.

Checking the image quality		Refer to "5.4 Checking Image Quality", "5.5 Checking Density Linearity", and "5.6 Creating QC Pattern Base" in the installation manual, and check the image quality.
	Caution	If the settings cannot be restored by restoration of V1.02 or later, perform "5.5.3 Built-in Densitometer Calibration" in the installation manual.

Backing up setup	Refer to "Chapter 6: Backing up Setup" in the installation manual to backup the setup data of DRYPRO 832 using the MainteTool. 

END

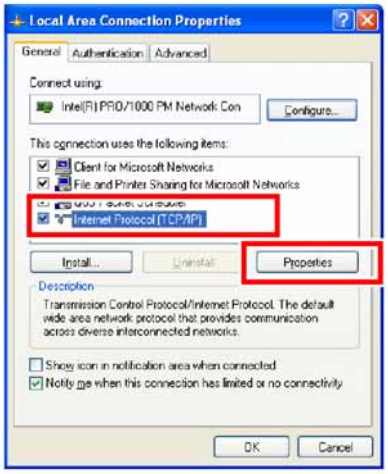
When Mistake was Made Selecting Replaced Unit

When mistake was made selecting replaced unit, reset necessary items by following procedure.

START

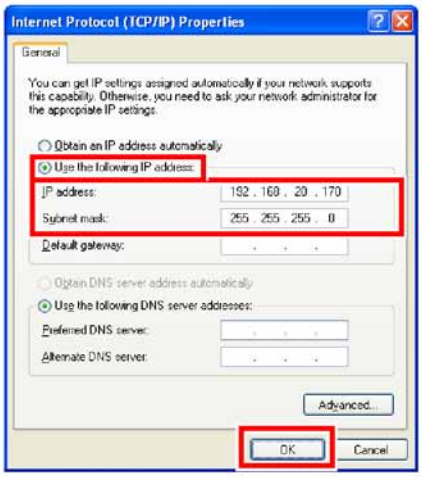
Starting the server PC	If the power for the server PC is OFF, turn the power ON.	
	Caution	Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.
Exit the application (Only for CS-2 and CS-3)	Refer to "7.4 How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.	
Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.	
	Note	However, if the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.
Initializing network settings	Return the Printlink5-IN network settings to the factory settings. This item does not need to be set if DRYPRO 832 is used with default network setting (IP Address: 192.168.20.161)	
	Caution	Check that the following address is not the same as another IP address within the facility. • IP Address: 192.168.20.179 • Subnet mask: 255.255.255.0
	1. Select [Start] – [Control Panel] – [Network Connections] from the WindowsXP desktop. The network connections window opens. 2. Right-click on "Local Area Connection", and select "Properties" from the pull down menu. "Local Area Connection Properties" dialog is displayed.	

3. Select “Internet Protocol (TCP/IP)” from “This connection uses the following items:”, and click the [Properties] button.



“Internet Protocol (TCP/IP) Properties” dialog box is displayed.

4. Set the [Use the following IP address] radio button to ON and enter the factory setting IP address and subnet mask.
5. Click the [OK] button and then the [Close] button.



Setting up Network	Refer to “Setting Up Network” in “17.3.2 Replacing the Compact Flash (CF) (Page 17-64)”, and setup the network.
Set the serial number	1. Check the serial number in the label on DRYPRO 832. 2. Refer to “15.17 Product Setup (Page 15-37)”, and set the Serial Number of DRYPRO 832.
Restore the setup	Refer to “16.6 Restoring Settings (Page 16-26)” to restore the setup.

Film Count Settings

Set the film count.

If you do not have notes on the number of films left in the tray

1. Refer to "15.20 Densitometer (Page 15-42)", and set the film count to 0.
2. Refer to "5.3 Film Loading" in the installation manual, discard the remaining film from the supply tray, and re-load the film.

If you have notes on the number of films left in the tray

1. Refer to "15.9 Film Setup (Page 15-20)", enter the film count from your notes.

Caution

- "15.9 Film Setup (Page 15-20)" is explaining the procedure to start the DRYPRO 832 Utility Tool from Printlink5-IN. When the server PC is CS-2 or CS-3, refer to this and start the DRYPRO 832 Utility Tool.
- If the actual film count and set film count differ, a pickup malfunction will occur when the film tray is empty.
- If the Lispl-832 is connected, set the Lispl-832 in the same way.

↓

Setting the Maintenance Schedule (ELAPSED TIME, PRINTED SHEETS)

Setup the maintenance schedule.
However, if the Lispl-832 is connected, set the Lispl-832 in the same way.

If you do not have notes on the maintenance schedule (elapsed time, printed sheets)

1. Calculate an appropriate value for the elapsed time and printed sheets from the installation date, first scheduled maintenance date, and daily film output status for the facility, refer to "15.14 Maintenance Schedule (Page 15-31)", and set the values.

If you have notes on the maintenance schedule (elapsed time, printed sheets)

1. Refer to "15.14 Maintenance Schedule (Page 15-31)", and enter the elapsed time and printed sheets values from your notes.

Caution

If the Lispl-832 is connected, set the Lispl-832 in the same way.

↓

Checking the image quality

Refer to "5.4 Checking Image Quality", "5.5 Checking Density Linearity", and "5.6 Creating QC Pattern Base" in the installation manual, and check the image quality.

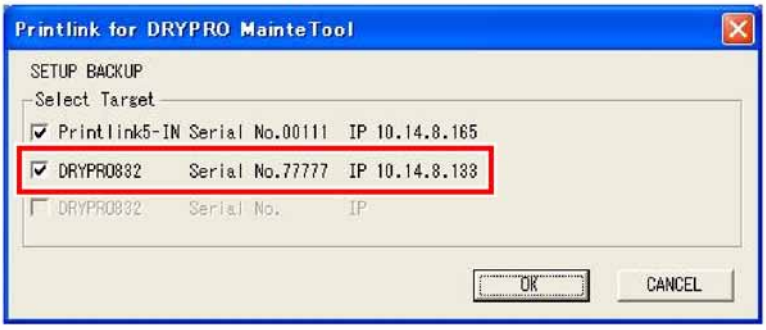
Caution

When replacing the compact flash, always perform "5.5.3 Internal Densitometer Correction" in the installation manual.
However, if there are no densitometers in the facility, you will need to take it for correction. When aligning with a densitometer in the facility, use the facility densitometer internally.

↓

Backup the setup

Refer to "Chapter 6: Backing up Setup" in the installation manual to backup the setup data of DRYPRO 832 using the MainteTool.



↓

END

17.3.3 Replacing the DRYPRO 832

> **Note**
> Method for replacing the DRYPRO 832 is different depending on the software version of the DRYPRO 832.
> - Refer to "■ Replacing DRYPRO 832 (Up to V1.01) (Page 17-82)" if the software version is up to V1.01.
> - Refer to "■ Replacing the DRYPRO 832 (V1.02 or Later) (Page 17-90)" if the software version is V1.02 or later.

■ Replacing DRYPRO 832 (Up to V1.01)

> **Note**
> This procedure is the replacing method when the software version of the DRYPRO 832 is up to V1.01.
> Refer to "■ Replacing the DRYPRO 832 (V1.02 or Later) (Page 17-90)" if the software version is V1.02 or later.
> For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the DRYPRO 832.

> **Caution**
> Do not use the compact flash from the malfunctioning DRYPRO 832 in the new DRYPRO 832 main unit.

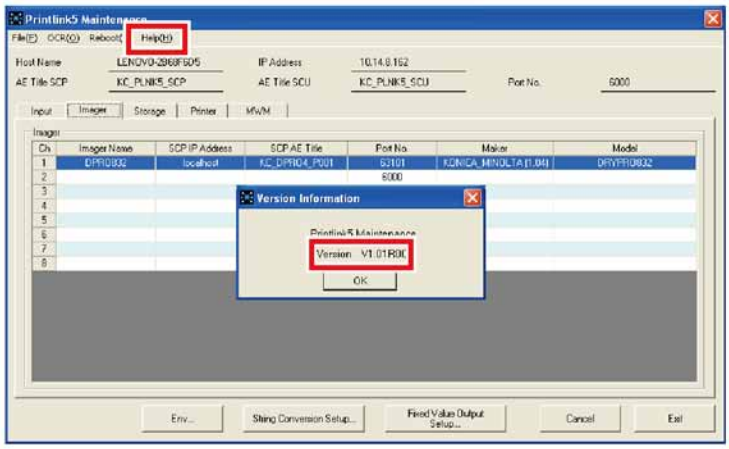
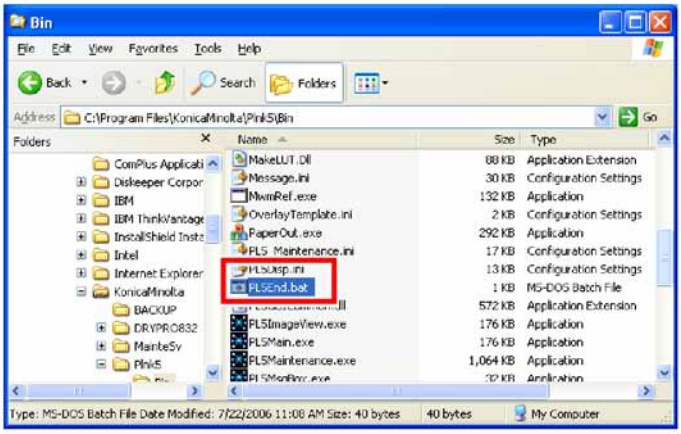
Requirements

Prepare following when replacing DRYPRO 832.

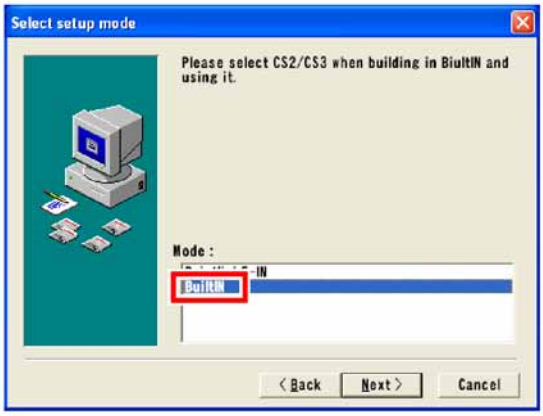
No.	Requirements	No.	Requirements
1	Replacement DRYPRO 832 (V1.01 or later)	2	Upgrading file (V1.01 or later)
3	Backup file (DRYPRO 832)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

START

Unpacking and Installation	Refer to "Chapter 3 Unpacking and Installation" in the Installation manual, and install the new DRYPRO 832. Next, add supply trays or change supply tray sizes as required.
Exiting DRYPRO 832 main unit	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the power source breaker OFF.
Starting the the server PC	Start the server PC (Printlink5-IN, CS-2, or CS-3)
	Caution: Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.
Exit the application (Only for CS-2 and CS-3)	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.

Upgrading server PC	Upgrade the server PC version to a later version than [V1.01R00]. However, the upgrade procedure differs depending on the server PC (Printlink5-IN or CS-2 and CS-3). **When the server PC is CS-2 or CS-3** 1. Before upgrading the software, click the [Help] tab on the “Prinlink5 Maintenance Main Window” and check the current version.  2. Double-click the file below, and exit Printlink5. • C:￥programFiles￥KonicaMinolta￥Plnk5￥Bin￥PL5End.bat  3. Refer to “7.10 Uninstalling Printlink5-IN (Built IN)” in the installation manual to uninstall the Printlink5-IN installed on the server PC.

4. Refer to "7.5 Installing Printlink5-IN (Built IN)" in the installation manual, and install a version of Printlink5 later than [V1.01R00] in the server PC.
However, select "Built IN" in the "Mode select" window at installation.



If the installation completes normally, the server PC will automatically restart.

Note	During the restart a DRYPRO 832 connection error will be displayed. Click the [Yes] button, and close the dialog box.

When the server PC is Printlink5-IN

1. Refer to "16.4 Upgrade Information (Page 16-12)" and upgrade the software.
If the installation completes normally, the server PC will automatically restart.

↓

Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual to check whether the DRYPRO 832 starts normally.
	Note: If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

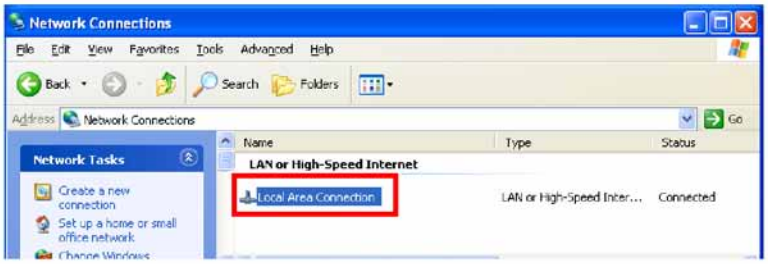
↓

Exit the application (Only for CS-2 and CS-3)	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.

↓

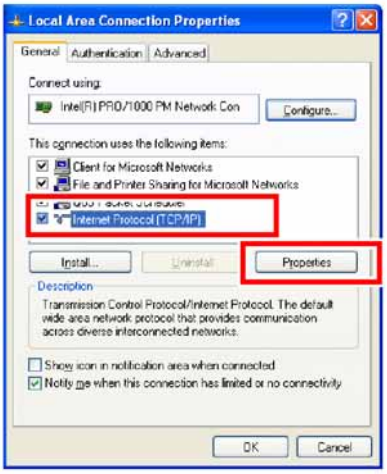
Initializing network settings	Return the Printlink5-IN network settings to the factory settings.
	Caution Check that following IP Address is not the same as another IP address within the facility. • IP address: 192.168.20.179 • Subnet mask: 255.255.255.0

1. Select [Start] - [Control Panel] - [Network Connections] from the WindowsXP desktop.
   The network connections window opens
2. Right-click on “Local Area Connection”, and select “Properties” from the pull down menu.



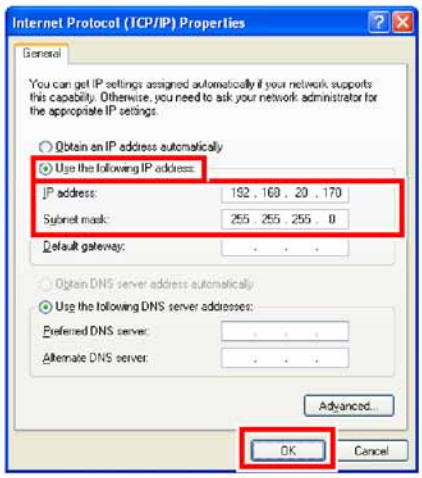
“Local Area Connection Properties” dialog box is displayed.

3. Select “Internet Protocol (TCP/IP)” from “This connection uses the following items:”, and click the [Properties] button.



The “Internet Protocol (TCP/IP) Properties” dialog box is displayed.

4. Set the [Use the following IP address] radio button to ON and enter the factory setting IP address and subnet mask.
5. Click the [OK] button and then the [Close] button.

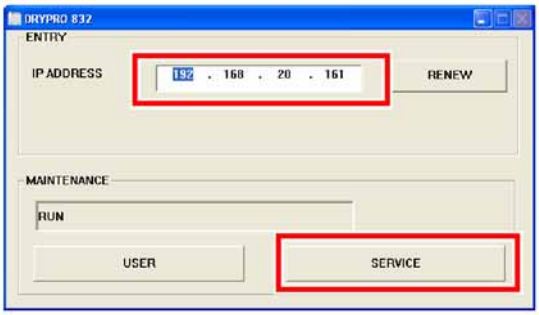


Setting up Network

Setup the network.
However, the network setup procedure differs depending on the server PC (Printlink5-IN or CS2 and CS-3).

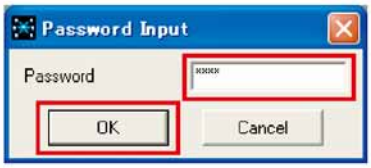
When the server PC is CS-2 or CS-3

1. Startup the CS-2 or CS-3.
   After starting up WindowsXP, a dialog box is displayed.
2. Check that the factor IP address (192.168.20.161) is entered in the “IP ADDRESS” entry field, and click the [SERVICE] button.



“Enter Password” dialog box is displayed.

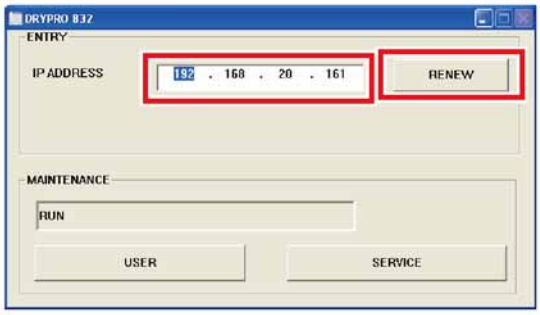
3. Enter “5678” in the [Password] entry field, and click the [OK] button.



The main window of the DRYPRO 832 Utility Tool is displayed.
License registration is required for the oversea version.

4. Refer to step 1 to 10 in “4.2.6 Change to Local Facility Network Settings” in the installation manual, and change to the facility network setting.
5. Click the [BACK] button on the main window of the DRYPRO 832 Utility Tool.

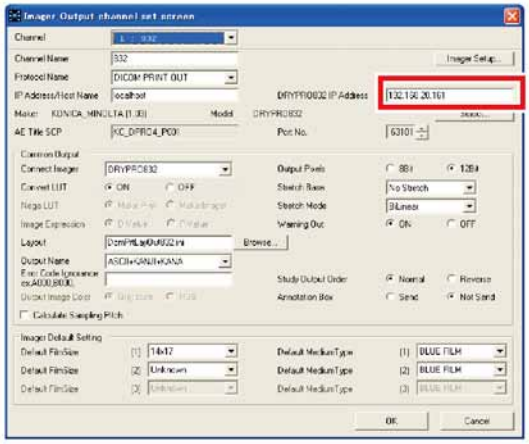
6. Enter the new IP address that you set for the imager into the “IP ADDRESS” entry field in the dialog box below, and click the [Update] button.



7. Check that a connection has been established with the imager.
8. Close all of the windows, and restart the server PC.

When the server PC is Printlink5-IN

1. Refer to step 1 to step 11 of “4.2.5 Printlink5-IN Imager Output Channel Settings” in the installation manual, and setup the imager output channel.
   However, in the “Imager Output channel set” window in step 5, enter “192.168.20.161” into the “DRYPRO 832 IP Address” entry field.



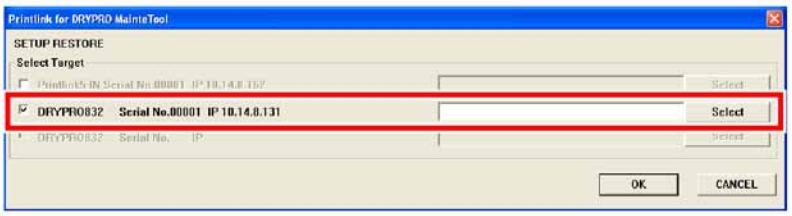
The server PC is restarted.

Exit the application (Only for CS-2 and CS-3)

Refer to “7.4 Closing CS-2 or CS-3” in the installation manual to exit CS-2 or CS-3.

Restore the setup

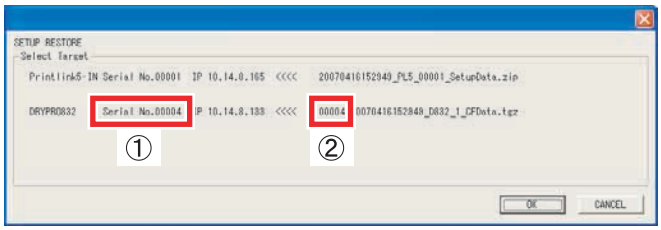
Refer to “16.6 Restoring Settings (Page 16-26)” to restore the setup.

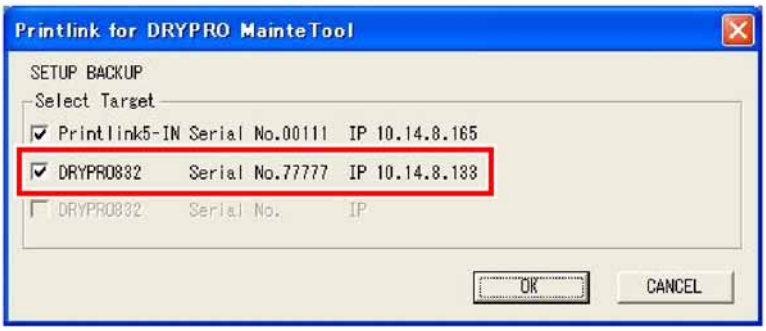


Server PC will restart automatically when the restore completes without any problem. Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button.

Caution

- Perform the restore for the DRYPRO 832. Do not restore Printlink5.
- If any error occurs during the restore, restart the server PC and redo the restore.

	Caution	• DRYPRO 832 might restart. In that case, execute the restore after it has restarted. • Check that the serial number of DRYPRO 832 ① is same as the serial number of the backup file ② in following setup restore window.  Check the serial number of the device on the label if ① and ② is different. If the serial number on the label is different from ① , there is a chance that there was a mistake in unit selection in previous “Selecting Replaced Unit”. Refer to “● When Mistake was Made Selecting Replaced Unit (Page 17-79)” and execute restore. If the serial number on the label is same with ① , there is a chance that there was a mistake in selection of the backup. Select the backup file with same serial number as above ① . If there is no backup file, DRYPRO 832 needs to be replaced. For details, refer to “17.3.3 Replacing the DRYPRO 832 (Page 17-82)”.

Set the serial number of the DRYPRO 832 unit	If you restore the DRYPRO 832 main unit settings, the DRYPRO 832 serial number will be re-written with the old number. Therefore, refer to “15.17 Product Setup (Page 15-37)”, and set the serial number of the newly installed DRYPRO 832 main unit.
Data Initialize	Refer to “15.21 Data Initialize (Page 15-54)”, and reset the film count and maintenance schedule.
Checking the image quality	Refer to “5.4 Checking Image Quality”, “5.5 Checking Density Linearity”, and “5.6 Creating QC Pattern Base” in the installation manual, and check the image quality.
	Caution: If there are no densitometers in the facility, you will need to take one for correction. However, only perform densitometer calibration if the densitometer will be set with the facility densitometer as the standard densitometer.
Set the logo	Refer to “5.9 Logo Setup” in the installation manual to set the logo to be output on a film.
Backup the setup	Refer to “Chapter 6 Backing up Setup Data” in the installation manual, and backup the setup data for DRYPRO 832 using the MainteTool. 

Creating duplicate data	Refer to "15.17 Product Setup (Page 15-37)" and note the following numerical values. • SERIAL NO. • SIZE FINE TUNING (H) • SIZE FINE TUNING (V) • SIZE FINE TUNING (Requested size)

END

■ Replacing the DRYPRO 832 (V1.02 or Later)

Note

This procedure is the replacing method when the software version of the DRYPRO 832 is V1.02 or later. Refer to "■ Replacing DRYPRO 832 (Up to V1.01) (Page 17-82)" if the software version is up to V1.01.

For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the DRYPRO 832.

Caution

Do not use the compact flash from the malfunctioning DRYPRO 832 in the new DRYPRO 832 main unit.

If you accidentally replaced the compact flash (before turning ON the power)

Return to original compact flash before turning ON the DRYPRO 832.

When you have turned ON the power of DRYPRO 832

After checking following message on the operation panel of DRYPRO 832, turn OFF the power breaker directly, and return the original compact flash.

- "Which was changed? CF:enter MEC:reset"

Following message is displayed 3 minutes after above message is displayed.

- "Turn OFF the power"

When above message is displayed, turn the power OFF of the DRYPRO 832 by pressing the operation switch, then turn OFF the power breaker directly, and then return the original compact flash.

When it has already started

After above message is completed, turn the power OFF of the DRYPRO 832 by pressing the operation switch, then turn OFF the power breaker directly, and then return the original compact flash.

- "INITIALIZING"

Refer to operation manual for messages displayed on the operation panel.

Caution

If there are IP Addresses "192.168.20.161" or "192.168.20.179" used in the same network environment of the facility, you need to release these IPaddresses before the procedure.

Requirements

Prepare following when replacing DRYPRO 832.

No.	Requirements	No.	Requirements
1	Replacement DRYPRO 832 main unit (V1.02 or later)	2	Upgrading file (V1.02 or later)
3	Backup file (DRYPRO 832)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

START

Starting the server PC	If the power for the server PC is OFF, turn the power ON.	
	Caution	Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.

Exit the application (CS-2 and CS-3 only)	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.

↓

Upgrade server PC	Refer to "16.4 Upgrade Information (Page 16-12)", and upgrade the version of server PC to V1.02R00 or later. If the installation completes normally, the server PC will automatically restart.	
	Caution	Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.

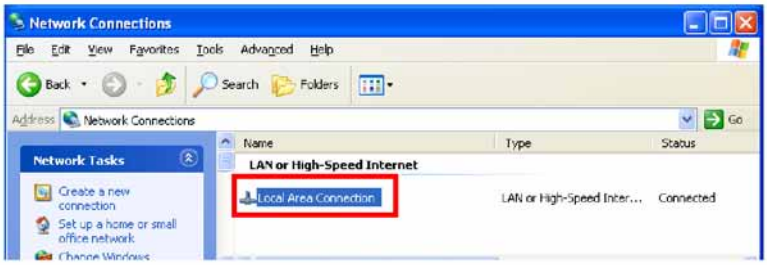
↓

Exit the application (CS-2 and CS-3 only)	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.

↓

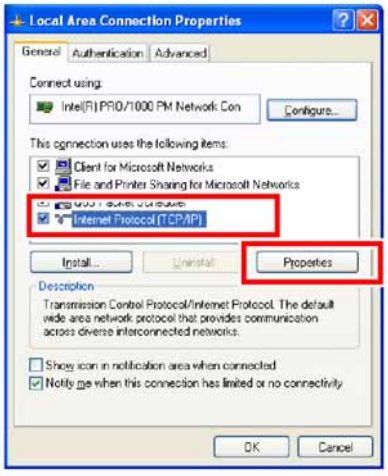
Initializing network settings	Return the Printlink5-IN network settings to the factory settings.	
	Caution	Check that the following address is not the same as another IP address within the facility. • IP address: 192.168.20.179 • Subnet mask: 255.255.255.0

1. Select [Start] – [Control Panel] – [Network Connections] from the WindowsXP desktop.
   The network connections window opens.
2. Right-click on "Local Area Connection", and select "Properties" from the pull down menu.



"Local Area Connection Properties" dialog is displayed.

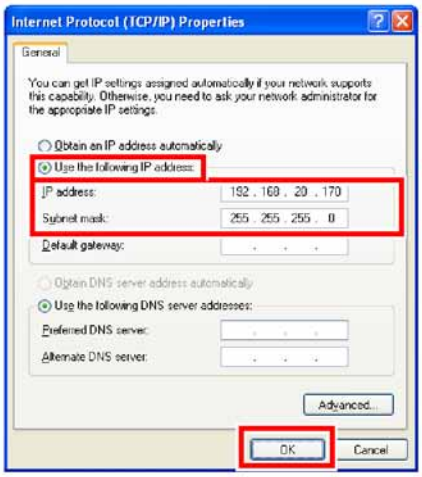
3. Select "Internet Protocol (TCP/IP)" from "This connection uses the following items:", and click the [Properties] button.



The "Internet Protocol (TCP/IP) Properties" dialog box is displayed.

↓

4. Set the [Use the following IP address] radio button to ON and enter the factory setting IP address and subnet mask.
5. Click the [OK] button and then the [Close] button.

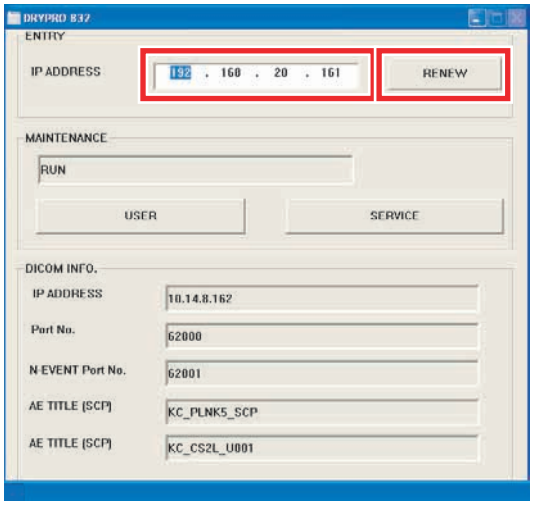


Setting up Network

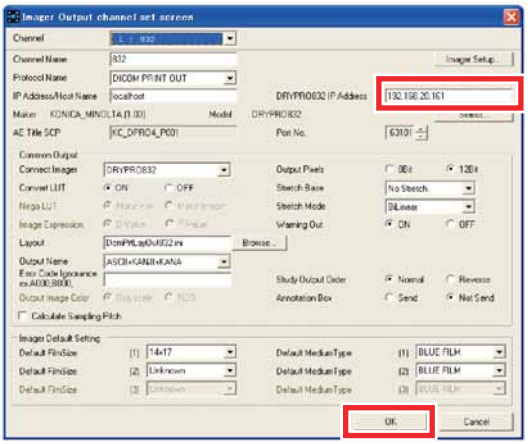
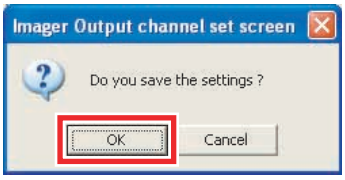
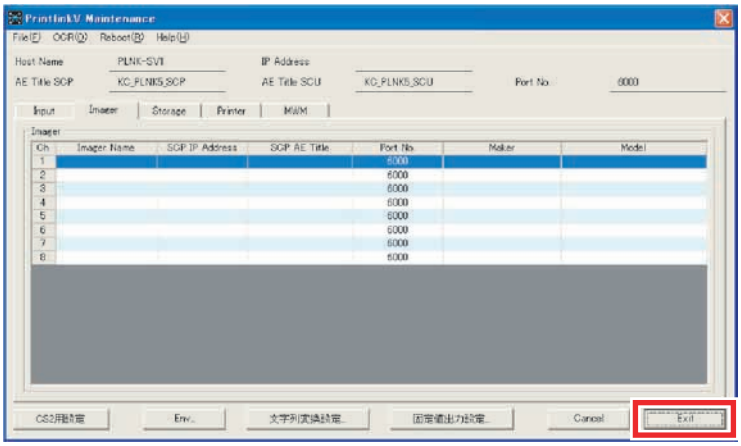
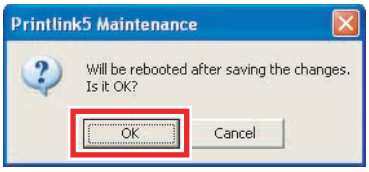
Setup the network.
However, the network setup procedure differs depending on the server PC (Printlink5-IN or CS-2 and CS-3).

When the server PC is CS-2 or CS-3

1. Startup the CS-2 or CS-3.
   After starting up WindowsXP, a dialog box is displayed.
2. Enter the factory IP address (192.168.20.161) in the [IP ADDRESS] entry field, and click the [RENEW] button.



3. Check that a connection has been established with the imager.
4. Close all of the windows, and restart the server PC.
5. It will go to next item, “Installation of main unit”.

Setting up Network	**When the server PC is Printlink5-IN** 1. Refer to "4.2.5 Setting the Printlink5-IN Imager Output Channel" in the installation manual, and open the "Imager Output channel set" window. 2. Enter "192.168.20.161" into the "DRYPRO 832 IP Address" entry field, and click the [OK] button.  The [Input Channel Settings] window is displayed. 3. Click the [OK] button.  It will return to "Printlink5 Maintenance" window. 4. Click the [Exit] button.  The confirmation window is displayed. 5. Click the [OK] button.  Printlink5-IN application is restarted.

Installation of DRYPRO 832 main unit	Install DRYPRO 832 with reference to the installation manual.	
	Caution	"4.2.4 Setting Printlink5-IN Input Channels" and "4.2.5 Setting the Printlink5-IN Imager Output Channel" in the installation manual is not necessary.

END

17.3.4 Replacing Printlink5-IN

Note

Method for replacing Printlink5-IN is different depending on the software version of the DRYPRO 832.

- Refer to "■ Replacing Printlink5-IN (Up to V1.01) (Page 17-95)" if the software version is up to V1.01.
- Refer to "■ Replacing Printlink5-IN (V1.02 or Later) (Page 17-99)" if the software version is V1.02 or later.

■ Replacing Printlink5-IN (Up to V1.01)

Note

This procedure is the replacing method when the software version of the DRYPRO 832 is up to V1.01. Refer to "■ Replacing Printlink5-IN (V1.02 or Later) (Page 17-99)" if the software version is V1.02 or later.

For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the Printlink5-IN (server PC).

Caution

- If the Printlink5-IN (server PC) unit has a malfunction, do not restore the DRYPRO 832. If you accidentally restore the DRYPRO 832 unit, refer to "■ If You Accidentally Restored the DRYPRO 832 Main Unit (Page 17-105)", and recover the previous status.
- Do not connect the DRYPRO 832 and Printlink5-IN until the Printlink5-IN upgrade has been completed.
  If you have connected the DRYPRO 832 and Printlink5-IN before upgrading the software, check that the DRYPRO 832 starts normally, refer to the processing documentation from the current version, and perform the settings again.

Requirements

Prepare following when replacing Printlink5-IN.

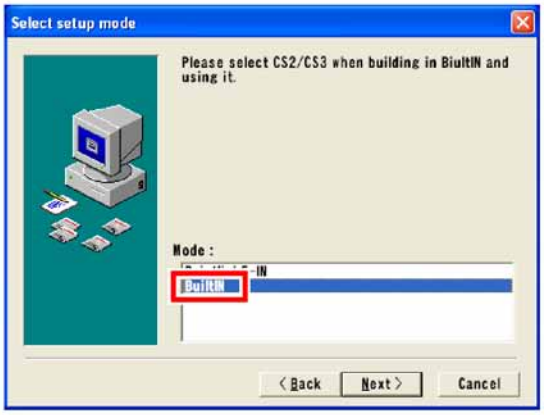
No.	Requirements	No.	Requirements
1	Replacement Printlink5-IN (server PC) (V1.01 or later)	2	Upgrading file (V1.01 or later)
3	Printlink_for_DRYPRO Installer (V1.01 or later)	4	Backup file (Printlink5-IN)
5	DRYPRO 832 Operation Manual	6	DRYPRO 832 Installation Manual
7	DRYPRO 832 Repair Manual		

START

Exit the DRYPRO 832 main unit	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the power source breaker OFF.
Server PC Installation	Installing a server PC. • If the server PC is CS-2 or CS-3, refer to the CS-2 or CS-3 installation manual. • If the server PC is a Printlink5-IN, refer to the Printlink5-IN installation manual.

Start the server PC	If the power for the server PC is OFF, turn the power ON.
	Caution Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.

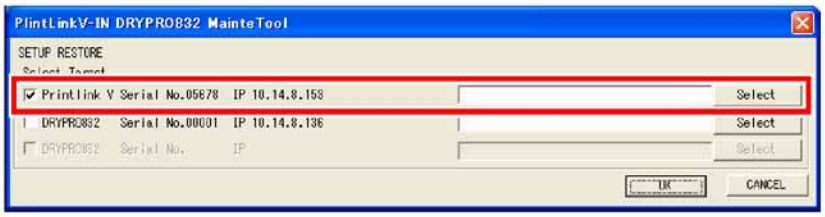
↓

Install the Printlink Build IN (CS-2 and CS-3 only)	Refer to "Chapter 7: Connecting and Setting CS-2 or CS-3" in the installation manual to install the latest Printlink Build IN. However, select "BuiltIN" in the "Mode select" window at installation. 

↓

Upgrading server PC (Printlink5-IN only)	Refer to "16.4 Upgrade Information (Page 16-12)", and upgrade the Printlink5 software to a newer version than [V1.01R00].

↓

Restore the setup	**Only when the server PC is Printlink5-IN** Refer to "16.6 Restoring Settings (Page 16-26)" to restore the setup. 
	Caution Perform the restore for the Printlink5-IN. Do not restore DRYPRO 832. If you have restored DRYPRO 832, it will be set to setting from the previous backup. Change the setting to the one with the changes made after previous backup.

↓

Restart the server PC	Restart the server PC (Printlink5-IN, CS-2, or CS-3)

↓

Exit the application (CS-2 and CS-3 only)	Refer to "7.4 How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.

↓

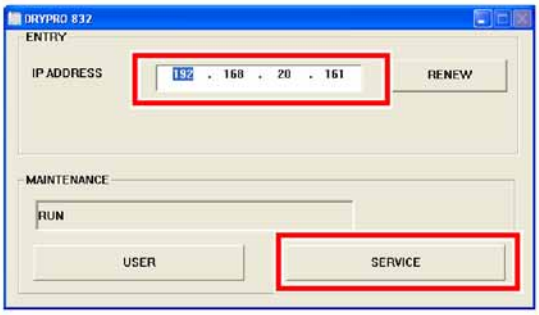
Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.
	Note However, if the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

↓

Setting up Network

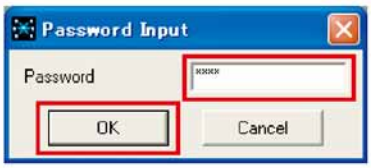
When the server PC is CS-2 or CS-3

1. Refer to step 1 to 10 in "4.2.6 Changing the Facility Network Settings" in the installation manual, and change to the facility network setting.
2. Enter the IP address set for the DRYPRO 832 in the "IP ADDRESS" entry field, and click the [SERVICE] button.



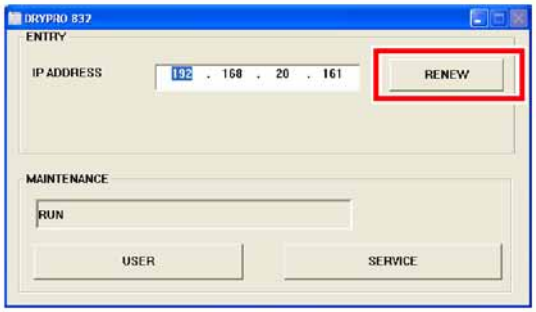
"Enter Password" dialog box is displayed.

3. Enter "5678" in the [Password] entry field, and click the [OK] button.



The main window of the DRYPRO 832 Utility Tool is displayed.

4. Check that each setting item button is active in the DRYPRO 832 Utility Tool main window, and click the [BACK] button.
5. Click the [RENEW] button in the following dialog box.



6. Check that a connection has been established with the imager.

When the server PC is Printlink5-IN

Setup the network.

1. Refer to step 3 to step 10 in "4.2.6 Changing the Facility Network Settings" in the installation manual, and set the Prinlink5-IN network settings.
2. Double click the Ch line assigned to DRYPRO 832 from "Imager" in the "Printlink5-IN Maintenance" main window.
   The "Imager Output channel set" window appears.
3. Check that "DRYPRO832" is selected in "Connect Imager" in "Common Output", enter the IP address into the "DRYPRO 832 IP Address" entry field, and click the [OK] button.
4. Refer to step 13 to step 16 in "4.2.6 Changing the Facility Network Settings" in the installation manual, save the settings, and check that the new connection can be established.

Caution

If the buttons for each item in the maintenance menu window are not active after 2 minutes has passed, or if the "Status" display is "Disconnected", refer to "4.4 Checking the Connection Status" in the installation manual, and check the connection status.
However, if the DRYPRO 832 upgrade has started, the disconnected status may continue for more than 2 minutes.

Restart the server PC	Restart the server PC (Printlink5-IN, CS-2, or CS-3)
↓	
Backup the setup	Refer to "Chapter 6: Backing up Setup" in the installation manual to backup the setup data using the MainteTool.
↓	
Check the status	Check if the server PC has started successfully.
↓	
END	

■ Replacing Printlink5-IN (V1.02 or Later)

Note

This procedure is the replacing method when the software version of the DRYPRO 382 is V1.02 or later. Refer to "■ Replacing Printlink5-IN (Up to V1.01) (Page 17-95)" if the software version is up to V1.01.

For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the Printlink5-IN (server PC).

Caution

- If the Printlink5-IN (server PC) unit has a malfunction, do not restore the DRYPRO 832. If you have restored DRYPRO 832, it will be set to setting from the previous backup. Change the setting to the one with the changes made after previous backup.
- Do not connect the DRYPRO 832 and Printlink5-IN until the Printlink5-IN upgrade has been completed.
  If you have connected the DRYPRO 832 and Printlink5-IN before upgrading the software, check that the DRYPRO 832 starts normally. If there is a processing documentation for the current version, refer to the processing documentation and perform the settings again. After that, upgrade the software.

Requirements

Prepare following when replacing Printlink5-IN.

When the server PC is Printlink5-IN

No.	Requirements	No.	Requirements
1	Replacement server PC	2	Upgrading file (V1.02 or later)
3	Backup file (Printlink5-IN)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

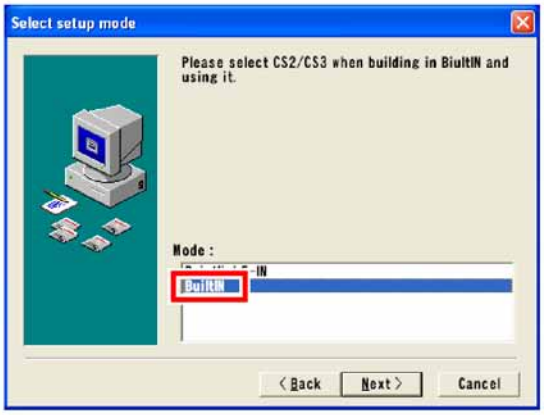
When the server PC is CS-2 or CS-3

No.	Requirements	No.	Requirements
1	Replacement server PC	2	Upgrading file (V1.02 or later)
3	Printlink_for_DRYPRO Installer (V1.02 or later)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

When the server PC is CS-2 or CS-3

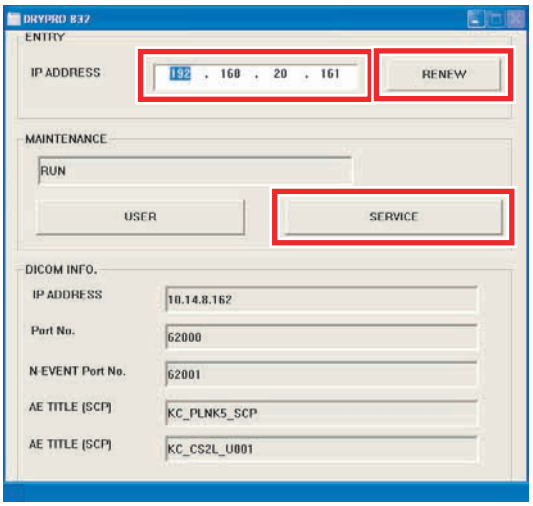
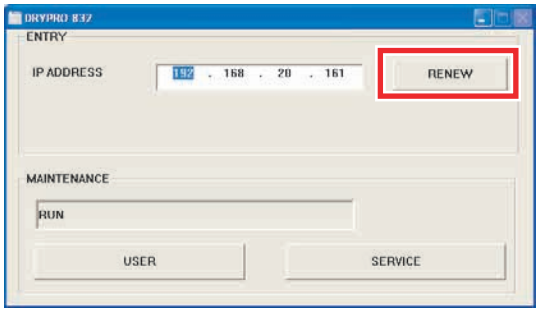
START

Exit the DRYPRO 832 main unit	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the Power source breaker OFF.
Server PC Installation	Refer to Printlink5-IN operation manual, and install server PC.
Adding Memory	Refer to "7.3 Adding Memory" in the installation manual, and add memory.
Start the server PC	If the power for the server PC is OFF, turn the power ON.
	Caution Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.
Exit the application	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.
Install the Printlink Build IN	Refer to "7.5 Installing Printlink5-IN (Build IN)" to install V1.02R00 or later Printlink Build IN. Select "Built IN" in the "Mode select" window at installation.



If the installation completes normally, the server PC will automatically restart.

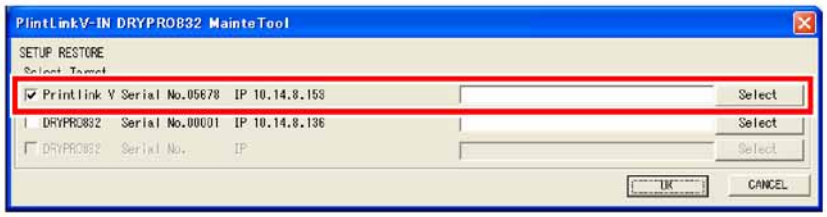
Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.
	Note If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.
Exit the application	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.

Setting up Network	Setup the network. 1. Startup the CS-2 or CS-3. After starting up WindowsXP, a dialog box is displayed. 2. Enter the IP address (192.168.20.161) set for the DRYPRO 832 in the [IP ADDRESS] entry field, and click [RENEW] button. 3. Click the [SERVICE] button.  "Enter Password" dialog box is displayed. 4. Enter "5678" in the [Password] entry field, and click the [OK] button. The main window of the DRYPRO 832 Utility Tool is displayed. License registration is required for the oversea version.
Note	Upgrade of the DRYPRO 832 may start when the DRYPRO 832 Utility Tool is displayed. Once the upgrade has started, the "disconnected" status may continue for more than 2 minutes.
	5. Refer to step 1 to 10 in "4.2.6 Changing the Facility Network Settings" in the installation manual, and change the facility network settings. 6. Click the [BACK] button on the main window of the DRYPRO 832 Utility Tool. 7. Click the [RENEW] button in the following dialog box.  8. Check that a connection has been established with the imager. 9. Close all of the windows, and restart the server PC.

Backup the setup	Refer to "Chapter 6: Backing up Setup" in the installation manual to backup the setup data using the MainteTool.
↓	
Check the status	Check if the server PC has started successfully.
↓	
END	

When the server PC is Printlink5-IN

START

Exit the DRYPRO 832 main unit	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the power source breaker OFF.
Server PC Installation	Refer to Printlink5-IN operation manual, and install server PC.
Start the server PC	Start the server PC (Printlink5-IN).
	Caution Do not connect the DRYPRO 832 and Printlink5-IN in powered up state until the server PCupgrade has been completed. If you have connected the DRYPRO 832 and Printlink5-IN in powered up state before upgrading the software, after checking following message in the DRYPRO 832 operation panel, turn OFF the DRYPRO 832 by pressing the operation switch, then turn OFF the power breaker directly, and then perform the next procedure, "Upgrade of Server PC". • "INITIALIZING" Refer to operation manual for messages displayed on the operation panel.
Upgrading server PC	Refer to "16.4 Upgrade Information (Page 16-12)", and upgrade the Printlink5 software to a newer version than [V1.02R00] using the MainteTool. If the upgrade of the server PC completes normally, the server PC will automatically restart.
Restore the setup	Refer to "16.6 Restoring Settings (Page 16-26)" to restore the setup.  If the restore of the server PC completes normally, the server PC will automatically restart.
	Caution Perform the restore for the Printlink5-IN. Do not restore DRYPRO 832. If you have restored DRYPRO 832, it will be set to setting from the previous backup. Change the setting to the one with the changes made after previous backup.
Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.
	Note If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

Setting up Network	Setup the network. **When facility IP address is used** Refer to step 4 to 16 in "4.2.6 Changing the Facility Network Settings" in the installation manual and set the Printlink5-IN network setting. **When default IP address is used in the facility** Go to next procedure, "Backup the setup".
	Note If the restore of the Printlink5-IN was not possible, perform "4.2.4 Setting Printlink5-IN Input Channels", "4.2.5 Setting the Printlink5-IN Imager Output Channel", and "4.2.6 Changing the Facility Network Settings" in the installation manual.
↓	
Backup the setup	Refer to "Chapter 6: Backing up Setup" in the installation manual to backup the setup data using the MainteTool.
↓	
Check the status	Check if the server PC has started successfully.
↓	
END	

■ If You Accidentally Restored the DRYPRO 832 Main Unit

If you accidentally restored the DRYPRO 832 main unit, follow the procedure below, and reset the required items.

START

↓

Start the server PC	Start the server PC (Printlink5-IN, CS-2, or CS-3)	
	Caution	Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.

↓

Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.	
	Note	If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

↓

Film Count Settings	Set the film count. **If you do not have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", and set the film count to 0. 2. Refer to "5.3 Film Loading" in the installation manual, discard the remaining film from the supply tray, and re-load the film. **If you have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", enter the film count from your notes.	
	Caution	• If the actual film count and set film count differ, a pickup malfunction will occur when the film tray is empty. • If the Lispl-832 is connected, set the Lispl-832 in the same way.

↓

Setting the Maintenance Schedule (ELAPSED TIME, PRINTED SHEETS)	Setup the maintenance schedule. However, if the Lispl-832 is connected, set the Lispl-832 in the same way. **If you do not have notes on the maintenance schedule (elapsed time, printed sheets)** 1. Calculate an appropriate value for the elapsed time and printed sheets from the installation date, first scheduled maintenance date, and daily film output status for the facility, refer to "15.14 Maintenance Schedule (Page 15-31)", and set the values. **If you have notes on the maintenance schedule (elapsed time, printed sheets)** 1. Refer to "15.14 Maintenance Schedule (Page 15-31)", and enter the elapsed time and printed sheets values from your notes.	
	Caution	If the Lispl-832 is connected, set the Lispl-832 in the same way.

↓

END

17.3.5 Replacing the MEC Board

Note

Method for replacing MEC board is different depending on the software version of the DRYPRO 832.

- Refer to "■ Replacing MEC Board (Up to V1.01) (Page 17-106)" if the software version is up to V1.01.
- Refer to "■ Replacing MEC Board (V1.02 or Later) (Page 17-108)" if the software version is V1.02 or later.

■ Replacing MEC Board (Up to V1.01)

Note

This procedure is the replacing method when the software version of the DRYPRO 832 is up to V1.01. Refer to "■ Replacing MEC Board (V1.02 or Later) (Page 17-108)" if the software version is V1.02 or later.

For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the MEC board.

Requirements

Prepare following when replacing MEC board.

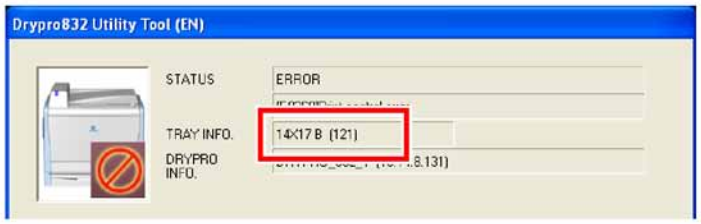
No.	Requirements	No.	Requirements
1	Replacement MEC board (V1.01 or later)	2	Upgrading file (V1.01 or later)
3	Backup file (DRYPRO 832)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

START

Start the server PC	Start the server PC (Printlink5-IN, CS-2, or CS-3)	
	Caution	Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.

Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.	
	Note	If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

Exit the application (CS-2 and CS-3 only)	Refer to "7.4 Closing CS-2 or CS-3" in the installation manual to exit CS-2 or CS-3.

Checking the number of films	Refer to the operation manual, start the DRYPRO 832 Utility Tool, and check the number of the films loaded currently. 
↓	
Checking the time until the completion of DRYPRO832	1. Refer to "3.1.2 How to Exit" in the operation manual, then press the operation switch for longer than 1 second. 2. Measure the amount of time from pressing the operation switch until the DRYPRO 832 exits, and make a note of the time.
↓	
Switching the power main supply OFF	Refer to "3.1.2 How to Exit" in the operation manual, and switch the power source breaker OFF.
↓	
Replacing the MEC board	Refer to "17.3.5 Replacing the MEC Board (Page 17-106)", and replace the MEC board.
↓	
Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally **Note**: If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.
↓	If the time between pressing the operation switch and the DRYPRO 832 exiting is less than 3 minutes, the operation is complete. If it takes more than 3 minutes, proceed to the following step.
Set the number of films	Set the film count. **If you do not have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", and set the film count to 0. 2. Refer to "5.3 Film Loading" in the installation manual, discard the remaining film from the supply tray, and re-load the film. **If you have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", enter the film count from your notes. **Caution**: • If the actual film count and set film count differ, a pickup malfunction will occur when the film tray is empty. • If the Lispl-832 is connected, set the Lispl-832 in the same way.
↓	
END	

■ Replacing MEC Board (V1.02 or Later)

Note	This procedure is the replacing method when the software version of the DRYPRO 382 is V1.02 or later. Refer to "■ Replacing MEC Board (Up to V1.01) (Page 17-106)" if the software version is up to V1.01. For information about the software version of the DRYPRO 832, refer to "15.11 System Setup (Page 15-25)".

Follow the procedure below to replace the MEC board.

Requirements

Prepare following when replacing MEC board.

No.	Requirements	No.	Requirements
1	Replacement MEC board (V1.02 or later)	2	Upgrading file (V1.02 or later)
3	Backup file (DRYPRO 832)	4	DRYPRO 832 Operation Manual
5	DRYPRO 832 Installation Manual	6	DRYPRO 832 Repair Manual

START

Exit the DRYPRO 832 main unit	Refer to "3.2.1 How to Exit" in the operation manual to exit the DRYPRO 832 and switch the power source breaker OFF.	
Replace the MEC board	Refer to "11.3 Replacing Main Board (Page 11-7)", and replace the MEC board.	
Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.	
	Note	If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.
Selecting replaced unit	Following message is displayed in the operation panel of DRYPRO 832 when the DRYPRO 832 is started, then press the [Reset/Cancel] button. • "Which was changed? CF:enter MEC:reset"	
	Caution	If the [Open/Enter] button is pressed by mistake (selecting CF), or the "Which was changed? CF: enter MEC: reset" message is not displayed, the actual film count and set film count will differ, and a pickup malfunction will occur when the film tray is empty. Refer to "● When mistake was made selecting replaced unit (Page 17-109)" and recover the previous status.
	Note	• Pressing the [Reset/Cancel] button may cause MEC to start initialization. In that case, above message is displayed after completion. • Following message is displayed 3 minutes after above message is displayed. • "Turn OFF the power" If the message is displayed, restart the DRYPRO 832 by pressing the operation switch.
Check the serial number	1. Check the serial number in the label on DRYPRO 832. 2. Refer to "15.17 Product Setup (Page 15-37)", and check that the serial number of DRYPRO 832 is same.	

END

When mistake was made selecting replaced unit

When mistake was made selecting replaced unit, reset necessary items by following procedure.

START

Start the server PC	If the power for the server PC is OFF, turn the power ON.
	Caution: Connection error message is displayed when the server PC is CS-2 or CS-3. Click the [Yes] button, and close the dialog box.

Exit the application (Only for CS-2 and CS-3)	Refer to "7.4 How to Exit CS-2 and CS-3" in the installation manual to exit CS-2 or CS-3.

Start the DRYPRO 832	Refer to "3.1.1 How to Start" in the operation manual, and check whether the DRYPRO 832 starts normally.
	Note: If the MEC upgrade is performed at startup, the startup time may take a few minutes longer than normal.

Set the serial number	1. Check the serial number in the label on DRYPRO 832. 2. Refer to "15.17 Product Setup (Page 15-37)", and set the serial number of DRYPRO 832.

Set the number of films	Set the film count. **If you do not have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", and set the film count to 0. 2. Refer to "5.3 Film Loading" in the installation manual, discard the remaining film from the supply tray, and re-load the film. **If you have notes on the number of films left in the tray** 1. Refer to "15.9 Film Setup (Page 15-20)", enter the film count from your notes.
	Caution: • "15.9 Film Setup (Page 15-20)" is explaining the procedure to start the DRYPRO 832 Utility Tool from Printlink5-IN. When the server PC is CS-2 or CS-3, refer to this and start the DRYPRO 832 Utility Tool. • If the actual film count and set film count differ, a pickup malfunction will occur when the film tray is empty. • If the Lispl-832 is connected, set the Lispl-832 in the same way.

Setting the Maintenance Schedule (ELAPSED TIME, PRINTED SHEETS)	Setup the maintenance schedule. **If you do not have notes on the maintenance schedule (elapsed time, printed sheets)** 1. Calculate an appropriate value for the elapsed time and printed sheets from the installation date, first scheduled maintenance date, and daily film output status for the facility, refer to "15.14 Maintenance Schedule (Page 15-31)", and set the values. **If you have notes on the maintenance schedule (elapsed time, printed sheets)** 1. Refer to "15.14 Maintenance Schedule (Page 15-31)", and enter the elapsed time and printed sheets values from your notes.
	Caution: If the Lispl-832 is connected, set the Lispl-832 in the same way.

END

Chapter 18 Technical Information

Technical information such as the block diagrams, wiring diagrams, board drawings, function timing charts for the DRYPRO 832 are contained here.

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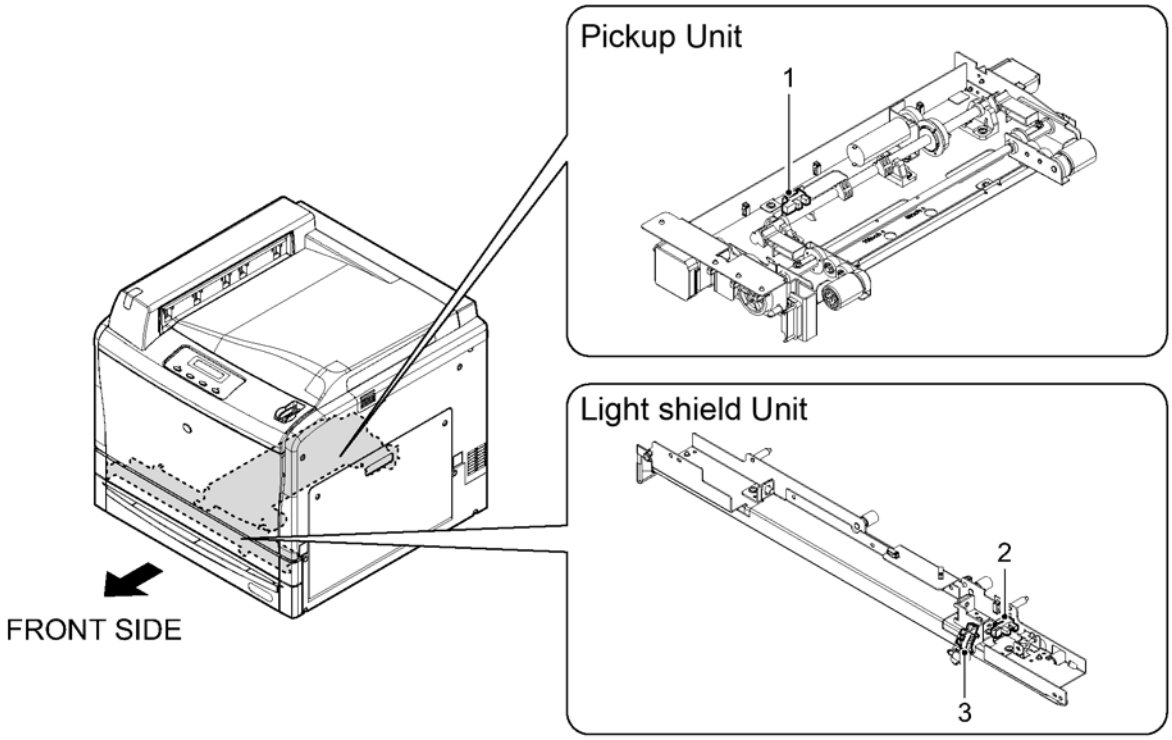
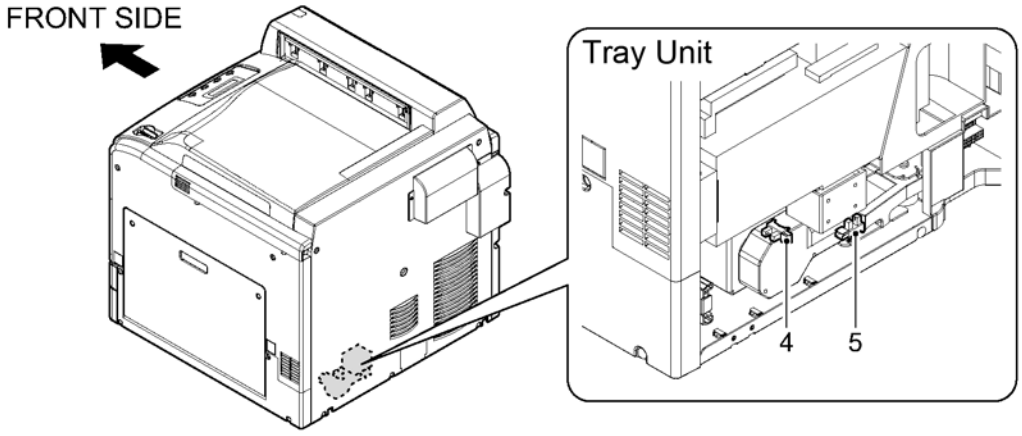
18.1 Placing Electronic Parts

18.1.1 Supply Unit

Displays the placement of the electronic components of the supply unit.

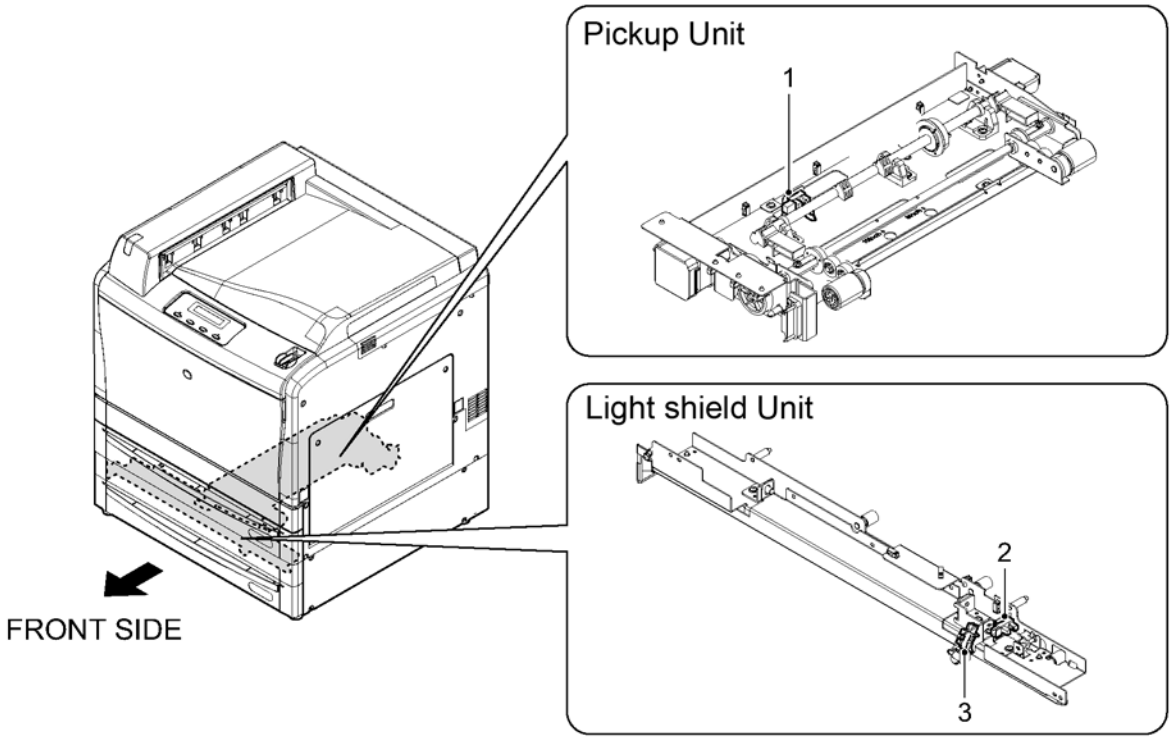


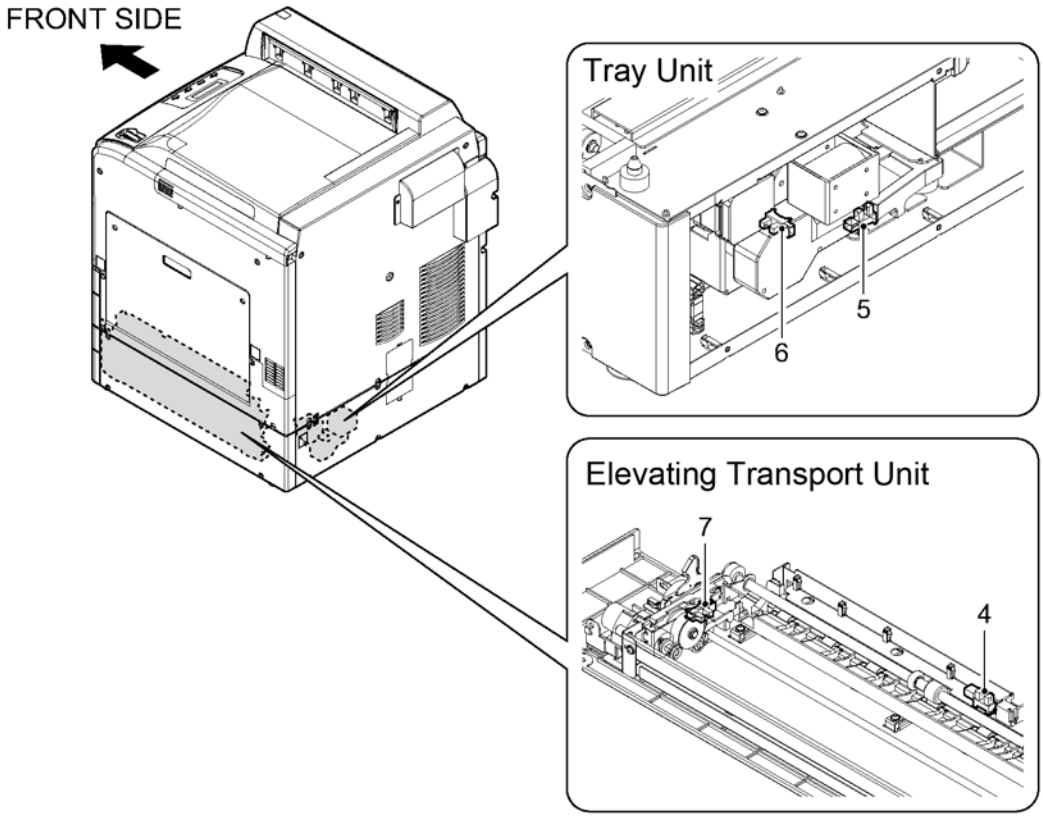


No.	Name	Drawing No.	Replacement Procedures
1	Pickup HP sensor	PS11	Page 4-20
2	Film height detection sensor	PS12	Page 4-8
3	Barrier bag detection sensor	PS13	Page 4-6
4	Elevating plate HP sensor	PS15	Page 5-6
5	Tray detection sensor	PS16	Page 5-15

18.1.2 Lispl-832 (Optional)

Displays the placement of the electronic components of the Lispl-832 (optional).



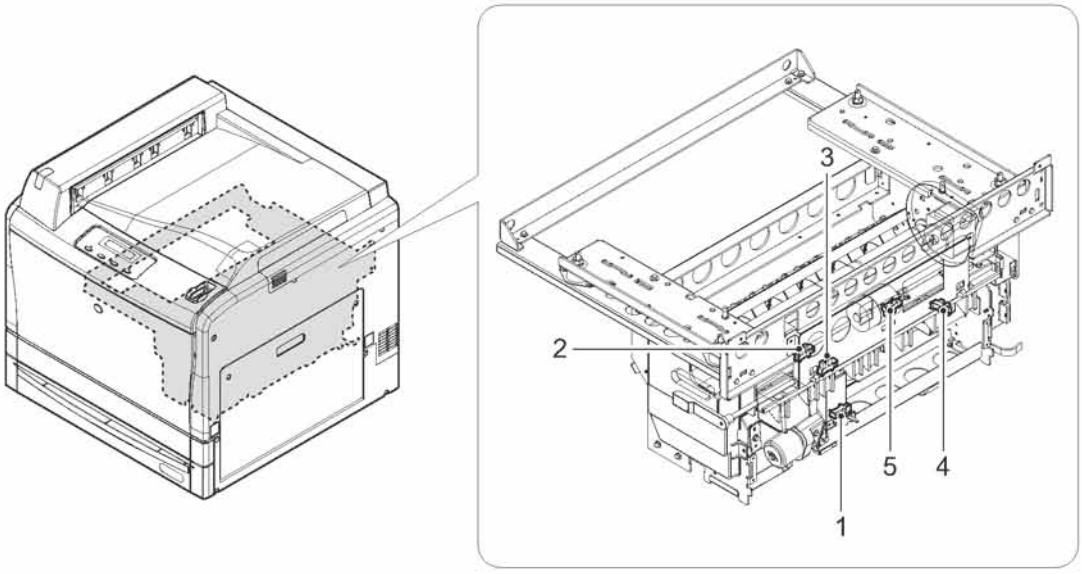


No.	Name	Drawing No.	Replacement Procedures
1	Pickup HP sensor	PS18	Page 4-20

No.	Name	Drawing No.	Replacement Procedures
2	Film height detection sensor	PS19	Page 4-8
3	Barrier bag detection sensor	PS20	Page 4-6
4	Supply outlet sensor	PS21	Page 6-18
5	Tray detection sensor	PS22	Page 5-15
6	Elevating plate HP sensor	PS24	Page 5-6
7	Elevating transport nip opening/closing HP sensor	PS25	Page 6-15

18.1.3 Sub Scan Unit, Justification Unit

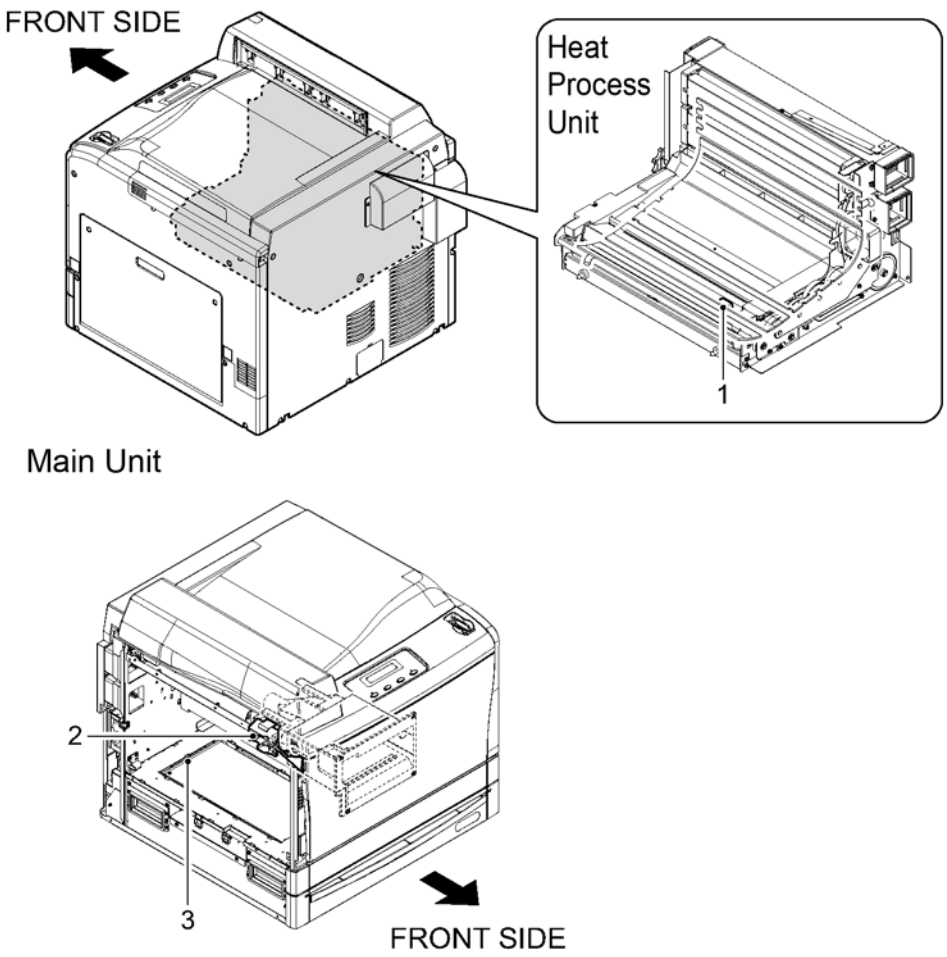
Displays the placement of the electronic components of the sub scan unit and the justification unit.



No.	Name	Drawing No.	Replacement Procedures
1	Position regulation inlet sensor	PS1	Page 7-15
2	V-Sync sensor	PS2	Page 7-40
3	Sub Scan inlet sensor	PS4	Page 7-34
4	Sub Scan Nip HP sensor	PS3	Page 7-38
5	Right cover detection sensor	PS8	Page 7-12

18.1.4 Heat Process Unit

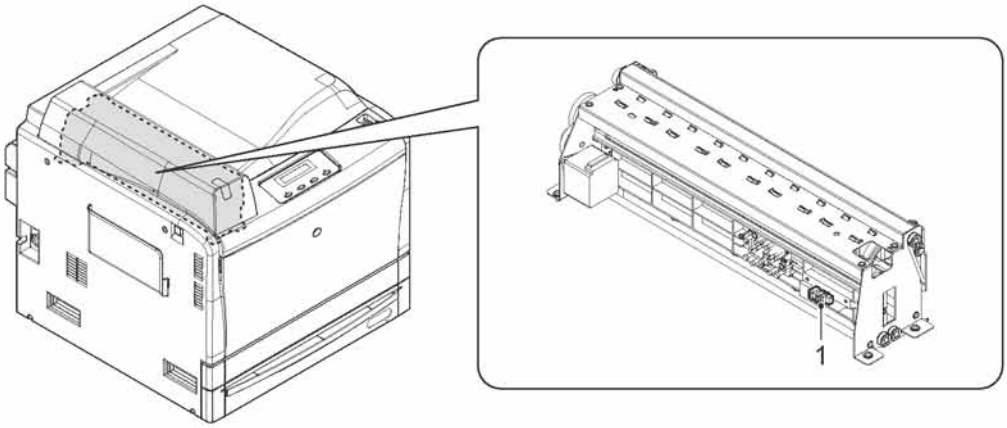
Displays the placement of the electronic components of the heat process unit.



No.	Name	Drawing No.	Replacement Procedures
1	Heat process temperature sensor	TH1 - TH14	Page 9-8
2	Deodorant filter detection sensor	PS5	Page 9-16
3	Internal temperature sensor	TH15	Page 9-22

18.1.5 Ejection Unit

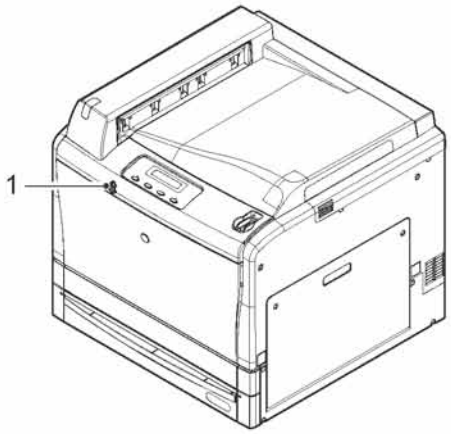
Displays the placement of the electronic components in the ejection unit.



No.	Name	Drawing No.	Replacement Procedures
1	Densitometer Entrance sensor	PS6	Page 10-3

18.1.6 Main Unit

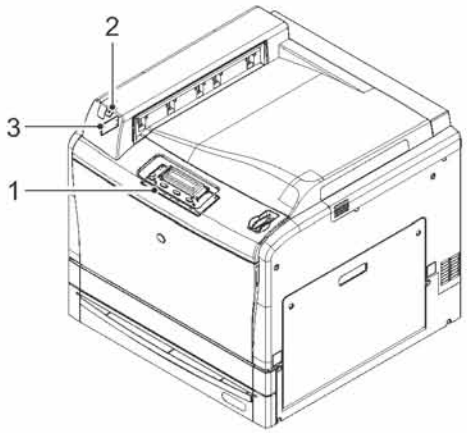
Displays the placement of the electronic components in the main unit.



No.	Name	Drawing No.	Replacement Procedures
1	Front cover sensor	PS7	Page 11-3

18.1.7 Exterior of Main Unit

Displays the placement of the electronic components of the exterior of main unit.

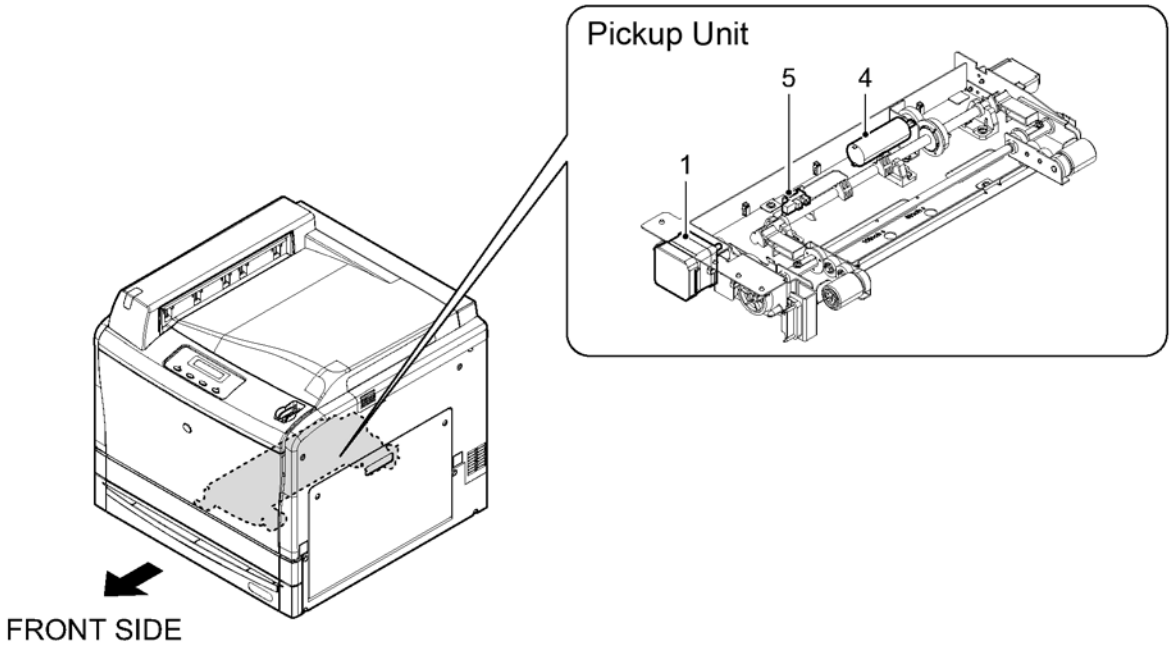


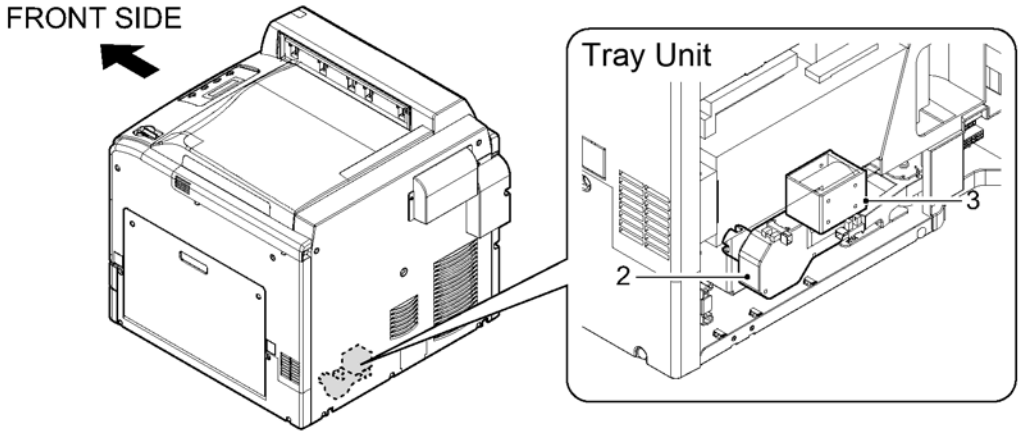
No.	Name	Drawing No.	Replacement Procedures
1	LCD board	-	Page 12-6
2	Status lamp	-	Page 12-8
3	Operation switch board	SW	Page 12-11

18.2 Placing Mechanical Parts

18.2.1 Supply Unit

Displays the placement of the mechanical components of the supply unit.

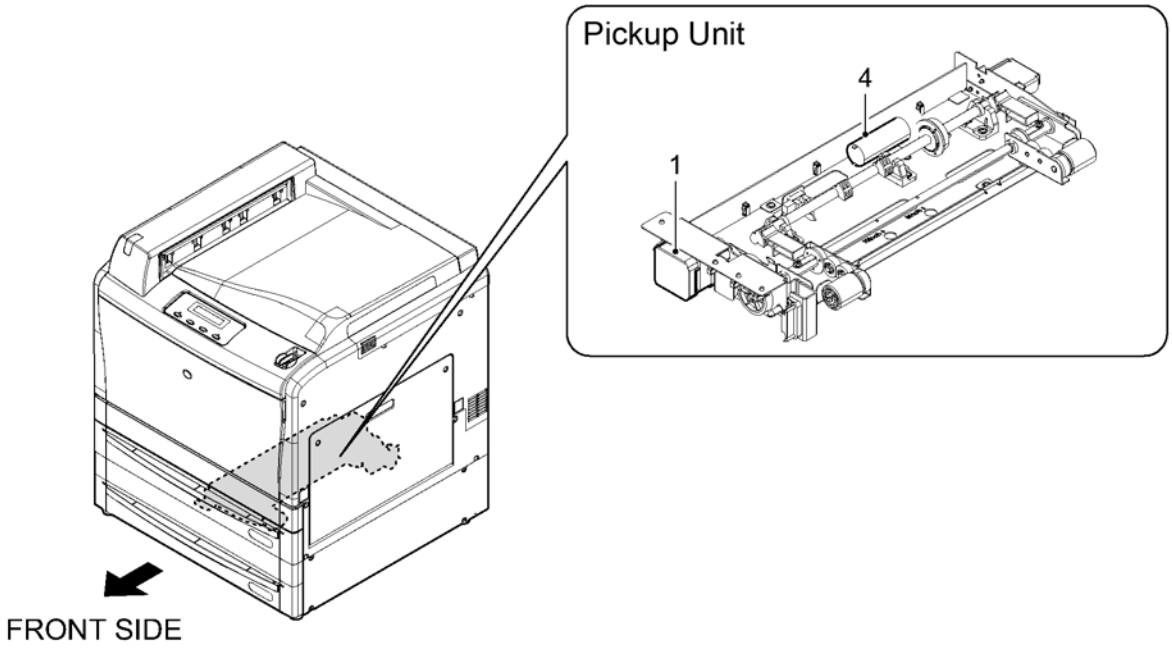


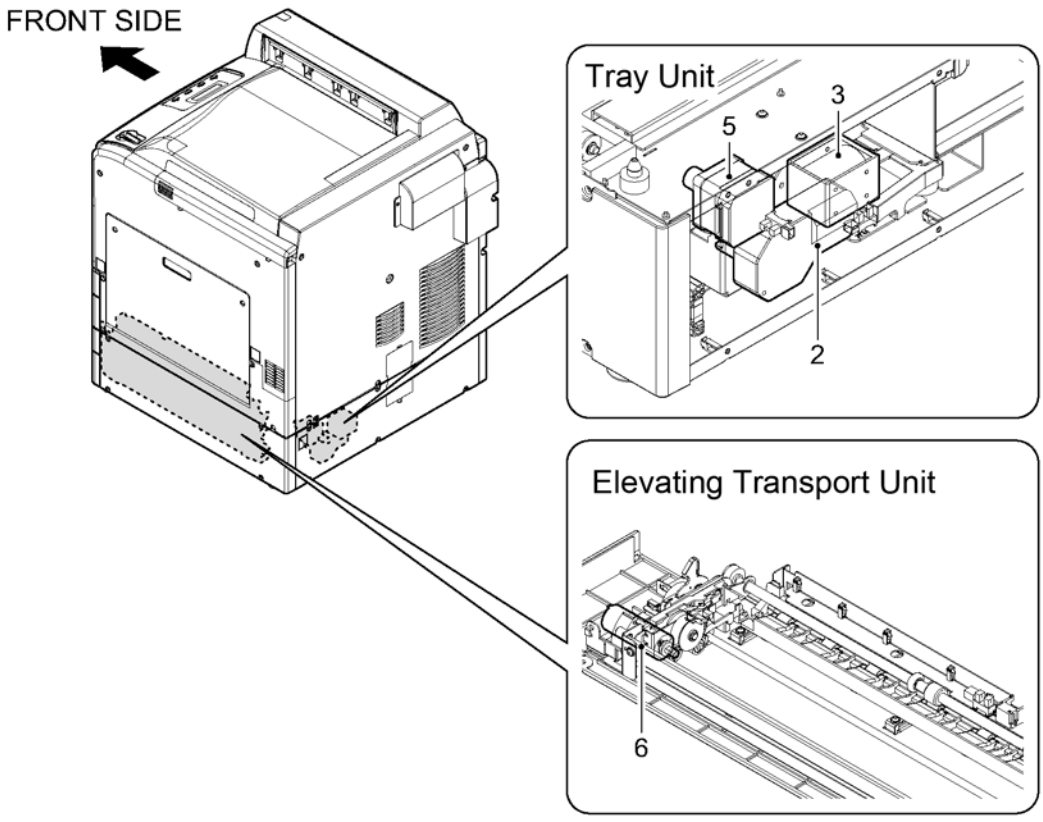


No.	Name	Drawing No.	Replacement Procedures
1	Pickup transport motor	PM1	Page 4-15
2	Supply elevating motor	M1	Page 5-3
3	Tray lock solenoid	SOL1	Page 5-10
4	Pickup HP sensor	M2	Page 4-18

18.2.2 Lispl-832

Displays the placement of the mechanical components of the Lispl-832 (optional).



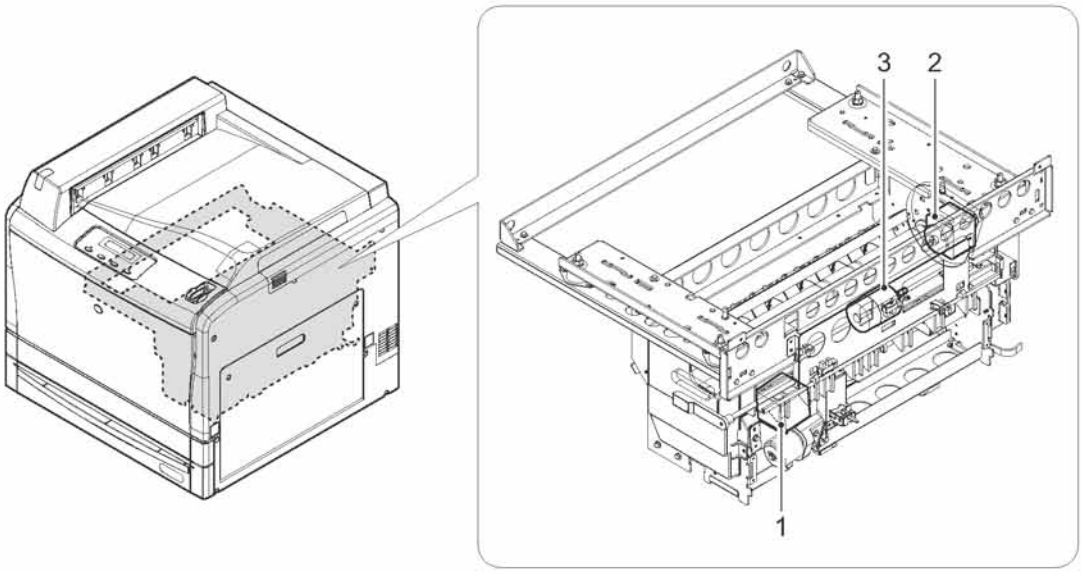


No.	Name	Drawing No.	Replacement Procedures
1	Pickup transport motor	PM5	Page 4-15
2	Supply elevating motor	M5	Page 5-3
3	Tray lock solenoid	SOL2	Page 5-10
4	Pickup HP sensor	M6	Page 4-18

No.	Name	Drawing No.	Replacement Procedures
5	Elevating transport motor	PM6	Page 6-5
6	Elevating transport nip opening/closing motor	M8	Page 6-13

18.2.3 Sub Scan Unit, Justification Unit

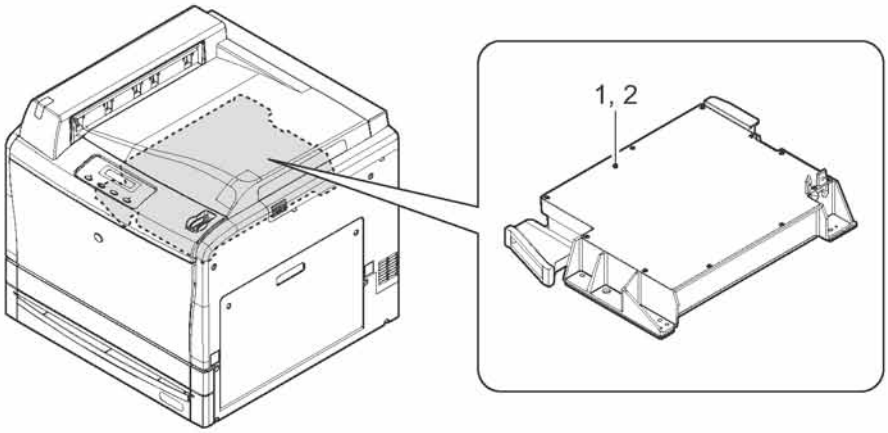
Displays the placement of the mechanical components of the sub scan unit and the justification unit.



No.	Name	Drawing No.	Replacement Procedures
1	Position regulation transport motor	PM2	Page 7-19
2	Sub Scan transport motor	PM3	Page 7-27
3	Sub Scan nip motor	M3	Page 7-30

18.2.4 Exposure Unit

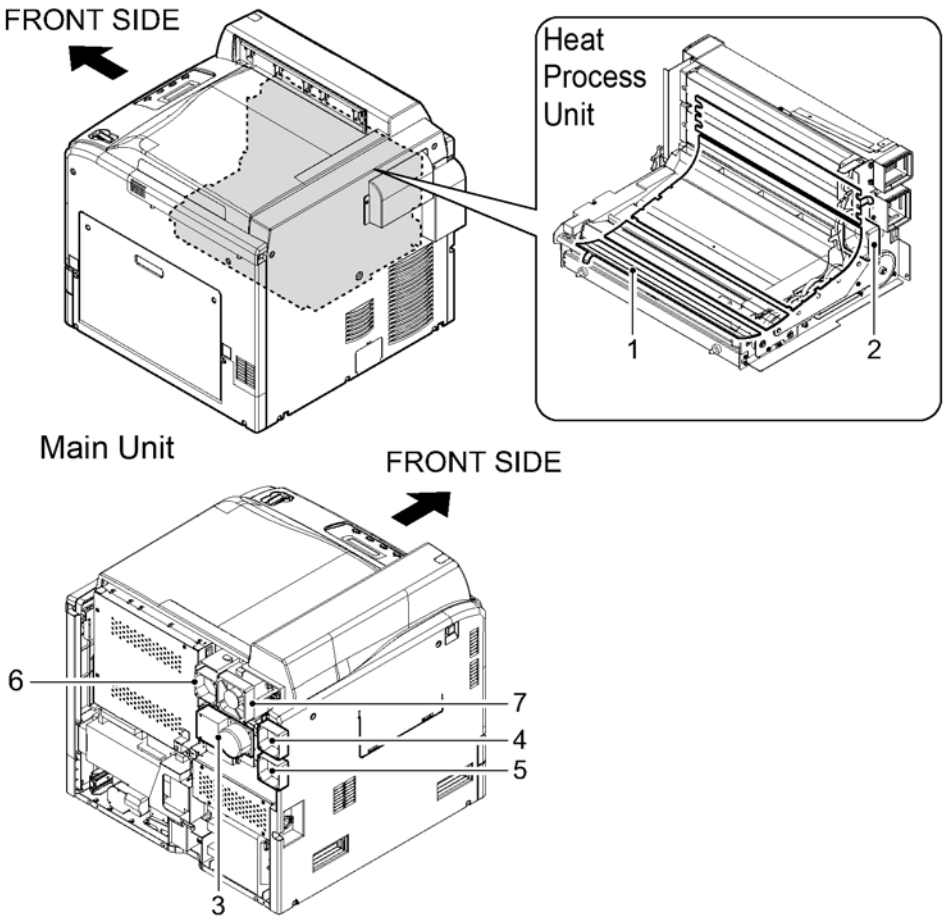
Displays the placement of the mechanical components in the Main Scan unit.



No.	Name	Drawing No.	Replacement Procedures
1	Polygon motor	M7	Page 8-3
2	Temperature control heater	-	Page 8-3

18.2.5 Heat Process Unit

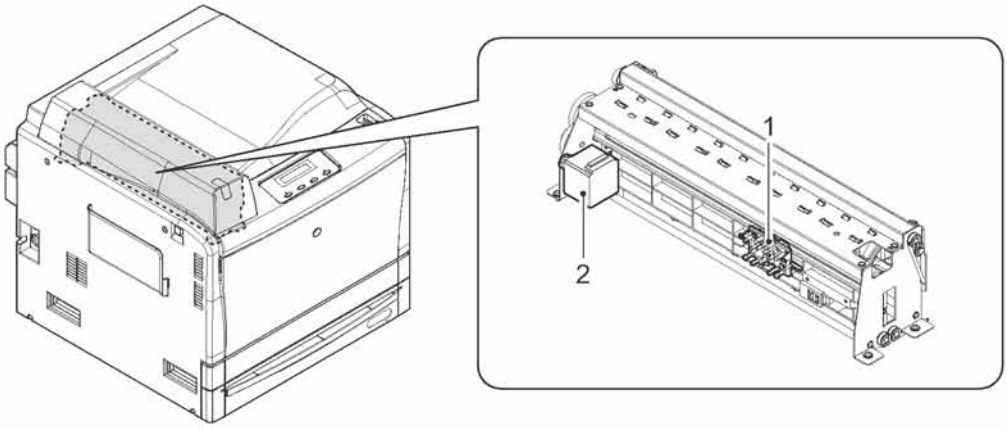
Displays the placement of the mechanical components of the heat process unit.



No.	Name	Drawing No.	Replacement Procedures
1	Heater	H1 - H11	Page 9-8
2	Supply cooling fan	FM1	Page 9-9
3	Heat process motor	M4	Page 9-12
4	Heat process cooling fan 1	FM2	Page 9-14
5	Heat process cooling fan 2	FM3	Page 9-14
6	Insulation unit fan	FM5	Page 9-18
7	Deodorant fan	FM6	Page 9-20

18.2.6 Ejection Unit

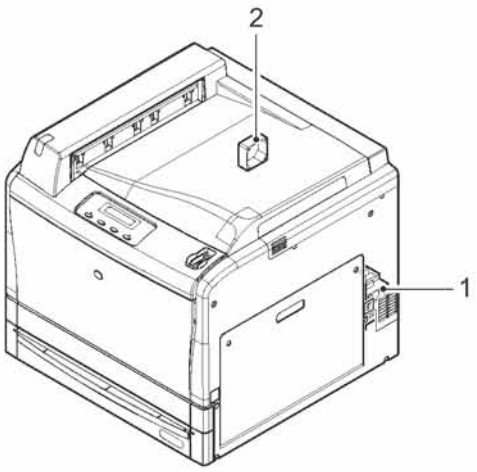
Shows the placement of the mechanical components in the ejection unit.



No.	Name	Drawing No.	Replacement Procedures
1	Densitometer	-	Page 10-3
2	Ejection motor	PM4	Page 10-3

18.2.7 Main Unit

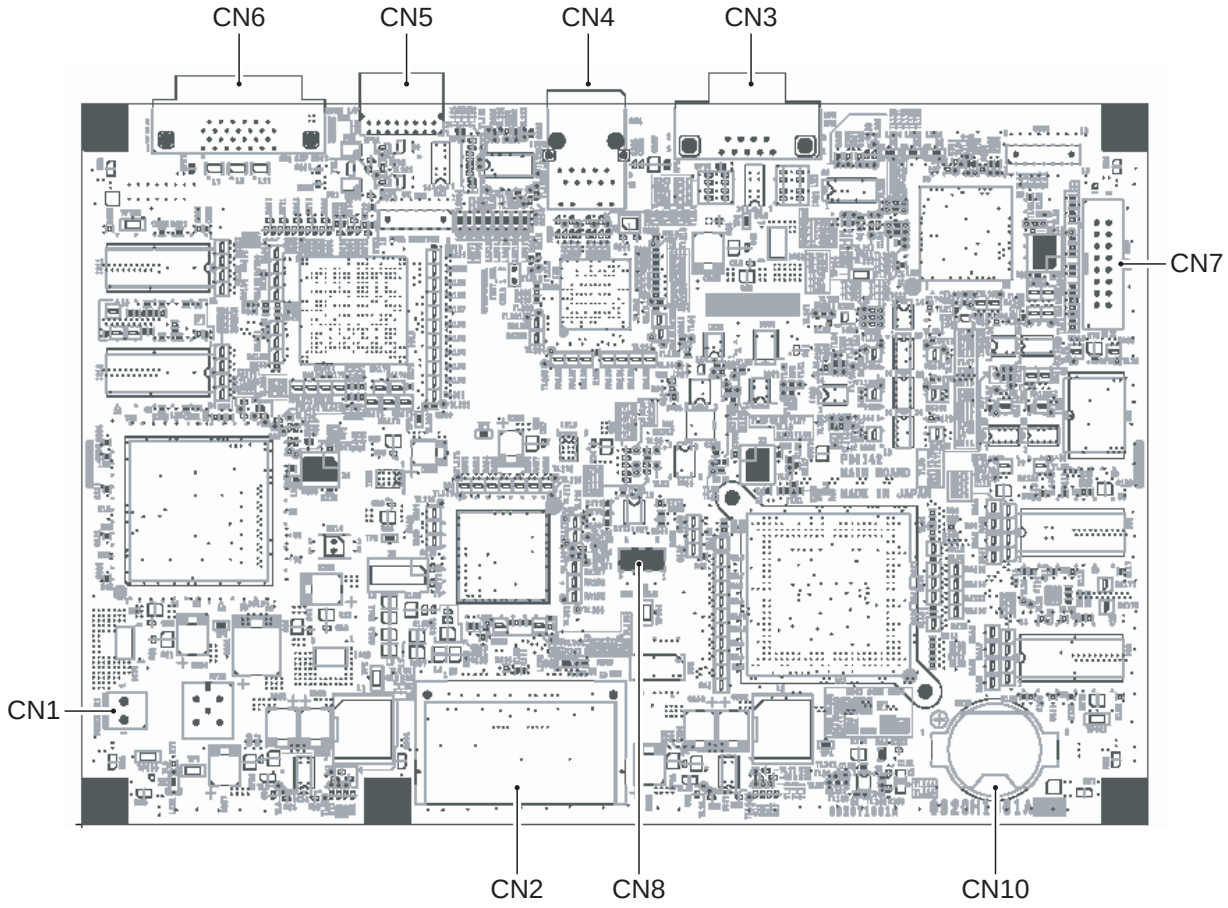
Shows the placement of the mechanical components in the main unit.



No.	Name	Drawing No.	Replacement Procedures
1	Power supply (internal, external) cooling fan	FM7	Page 11-17
2	Control cooling fan	FM4	Page 11-25

18.3 Board Diagram

18.3.1 Main Board



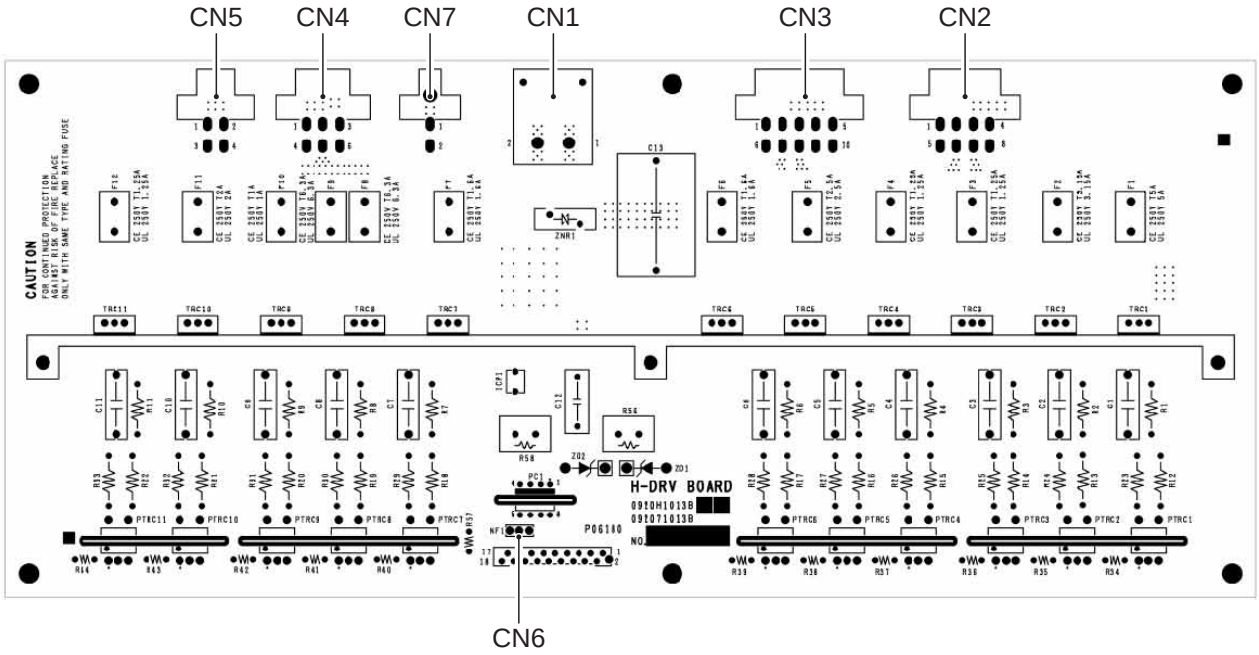
connector	Application	connector	Application
CN1	Power source	CN2	CF
CN3	UPS	CN4	LAN
CN5	MEC communication	CN6	Exposure communication
CN7	Debug Board	CN8	Console Output
CN10	Battery		

Connectors other than those shown above are not used, and have not been packaged.

Caution

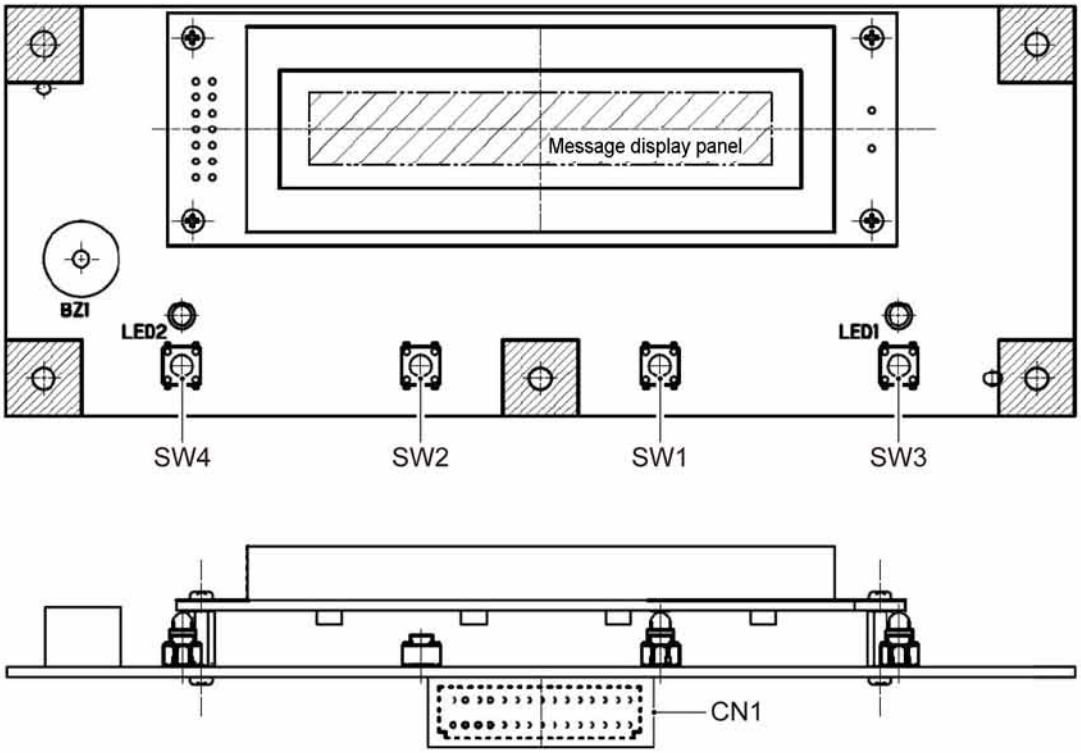
- Always turn the power of the DRYPRO 832 OFF when plugging in or pulling out a connector
- This board uses a coin type lithium battery. When disposing the batteries, always follow local government regulations.
  Also, take the following precautions concerning batteries that are removed.
  (1) Do not recharge, disassemble, deform, heat, solder, or bring into contact with flame.
  (2) When replacing or reusing, be careful not to install the batteries backwards.
  (3) Store batteries out of the reach of young children, and immediately obtain medical assistance if swallowed.
  (4) Do not intentionally short or store or carry with metal products such as necklaces.
  (5) When storing and disposing batteries, insulate both ends of the battery with tape or other means in order to prevent contacting with other batteries or other metal products.

18.3.2 Main ScanRV, EEP Board Diagram



connector	Application	connector	Application
CN1	AC input	CN2	V1 heater AC output
CN3	V2 heater AC output	CN4	V3 heater AC output
CN5	V4 main heater AC output	CN6	Heater control input (from MEC)
CN7	V4 sub heater AC output		

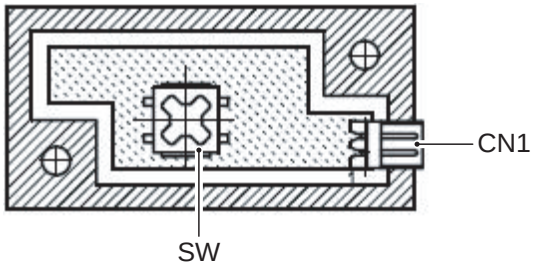
18.3.3 LCD Unit Board Diagram



connector	Application
CN1	Power source input connector

Switch	Application	Switch	Application
SW1	Calibration switch	SW2	Test Print switch
SW3	Open / Enter switch	SW4	Reset/Cancel switch

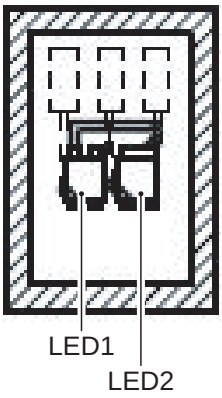
18.3.4 Operation SW Board Diagram



connector	Application
CN1	Power source input connector

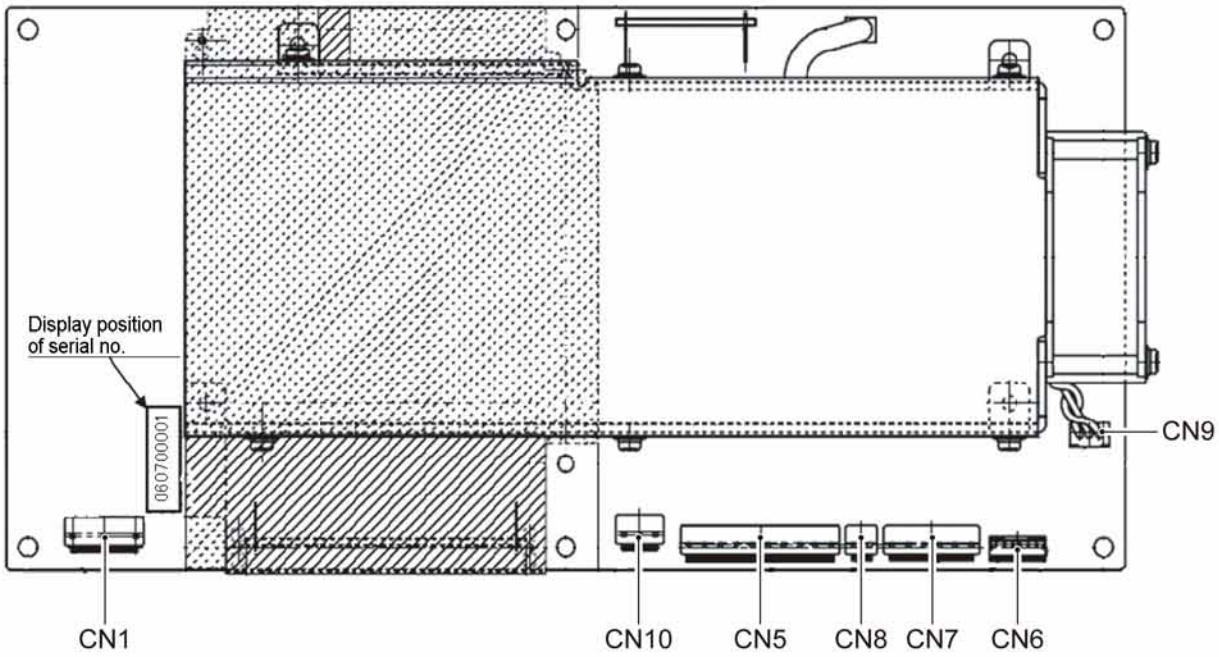
Switch	Application
SW1	Power Supply Switch

18.3.5 STATUS LED Board Diagram



LED	Status
LED1 (orange LED)	Lit: Cover open, jam error, other errors Flashing: Maintenance of operation unit, film replacement, test print
LED2 (blue LED)	Lit: Printing possible, calibration, filter exchange, periodic inspection, sleep Flashing: Temperature high, currently printing, maintenance (Web / PC)

18.3.6 Multiple Power Supply



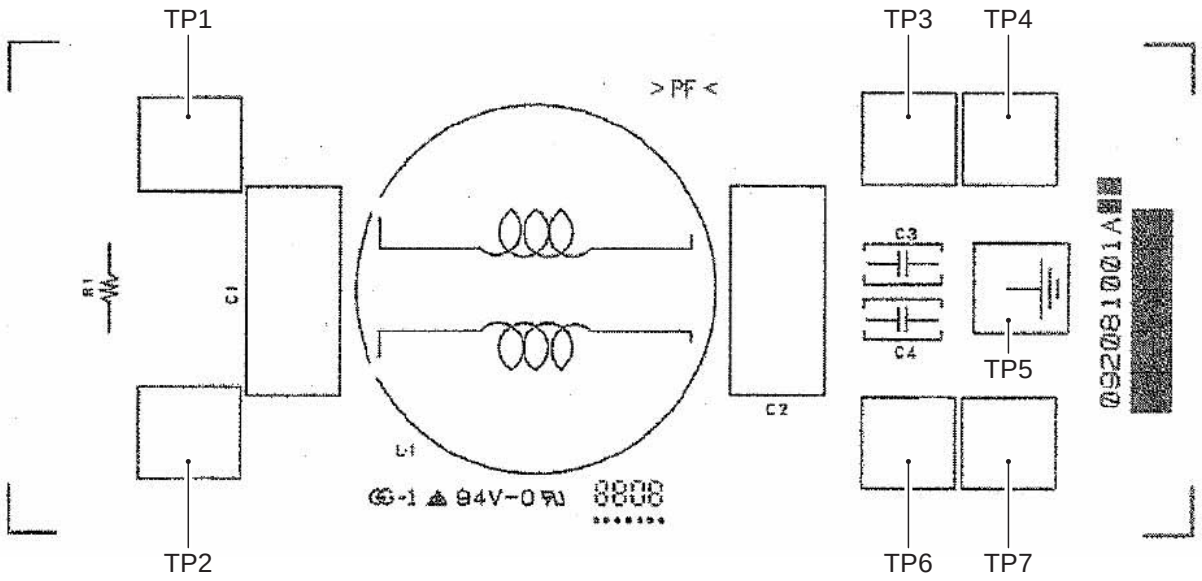
connector	Application	connector	Application
CN1	AC input connector (AC100V - AC240V input)	CN5	Power source output connector for MEC
CN6	Power source remote input connector	CN7	Exposure unit power source output connector
CN8	Main power source output connector	CN9	Power source FAN connector (Do not pull out)

connector	Application	connector	Application
CN10	Interlock SW connector (unused)		

Caution

- When replacing the board, always turn OFF the power source breaker, and remove the power source plug. If the work is performed while the power plug is connected, there is a possibility of electric shock.
- To prevent electric shock, first remove CN1, and then remove the other connectors. When connecting the connectors, always plug in the CN1 connector last.
- Always place the removed multiple power source on an insulation material. If placed on top of a conductor such as metal, there is a possibility of shorting due to residual voltage.

18.3.7 Noise Filter

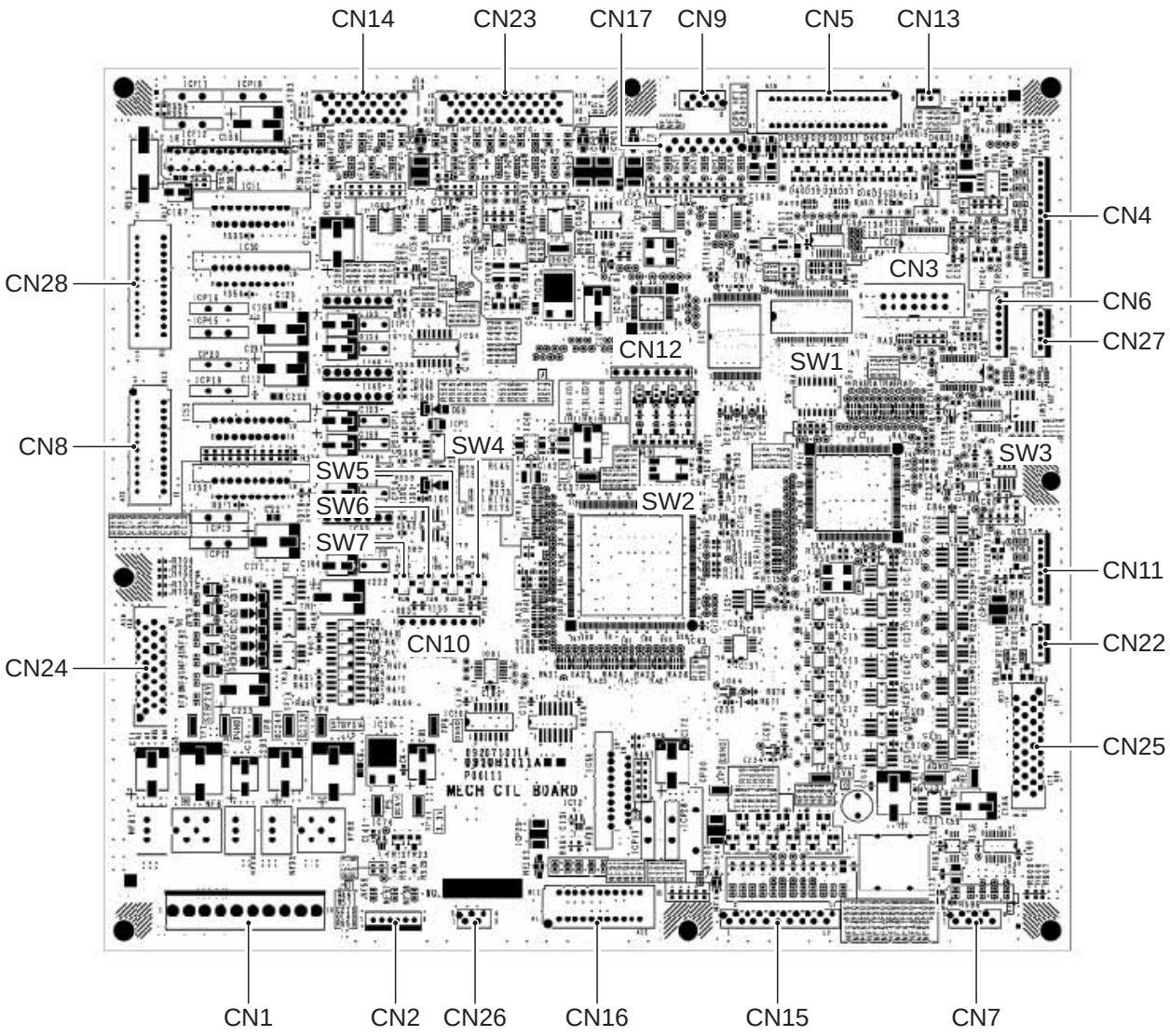


TP	Application
TP1	AC input tab L side (AC100V - AC240V input)
TP2	AC input tab N side (AC100V - AC240V input)
TP3	Heater AC output tab L side (AC100V - AC240V input)
TP4	Multiple power supply AC output tab L side (AC100V - AC240V input)
TP5	FG tab
TP6	Heater AC output tab N side (AC100V - AC240V input)
TP7	Multiple power supply AC output tab N side (AC100V - AC240V input)

Caution

- When replacing the board, always turn OFF the power supply breaker, and remove the power supply plug.If the work is performed while the power plug is connected, there is a possibility of electric shock.
- To prevent electric shock, first remove TP1 and TP2, and then remove the other tabs. When connecting the tabs, always plug in the TP1 and TP2 connector last.
- Always place the removed noise filter on an insulation material. If placed on top of a conductor such as metal, there is a possibility of shorting due to residual voltage.

18.3.8 MEC Board Drawing



connector	Application	connector	Application
CN1	DC Power supply input	CN2	Power supply control I / F
CN3	CPU JTAG (unused)	CN4	Communication with main CPU
CN5	LCD control I / F	CN6	Communication with log PC (unused)
CN7	Communication with heat processing unit EEP BOARD	CN8	Supply CH2 control output
CN9	Main unit sensor input	CN10	FPGA JTAG (unused)
CN11	Densitometer I / F	CN12	CPLD JTAG (unused)
CN13	OPERATION SW Input	CN14	Supply CH2 input
CN15	Heater control output	CN16	Heat process and ejection control output
CN17	Reserve sensor input (unused)	CN22	Internal temperature sensor input
CN23	Supply CH1, Sub Scan input	CN24	Fan control I / F
CN25	Heat process temperature sensor input	CN26	Supply cooling fan control I / F
CN27	Communication with maintenance PC	CN28	Supply CH1, Sub Scan control output

Switch	Application
SW1	1：OFF, 2：OFF, 3：OFF, 4：OFF, 5：OFF, 6：OFF, 7：OFF, 8：OFF
SW2	CPU reset switch (unused)
SW3	1：ON, 2：ON, 3：ON, 4：OFF
SW4	“RUN” FPGA configuration switch
SW5	“RUN” FPGA configuration switch
SW6	“RUN” FPGA configuration switch
SW7	“RUN” FPGA configuration switch

- Do not change the SW settings. The device may be damaged.
- When replacing the board, always turn OFF the power source breaker, and remove the power source plug. If the work is performed while the power plug is connected, there is a possibility of electric shock.

18.4 Film Management Information

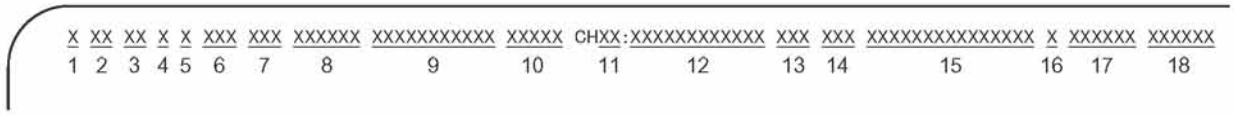
18.4.1 Management Information Print Specifications

Stamp writing contents

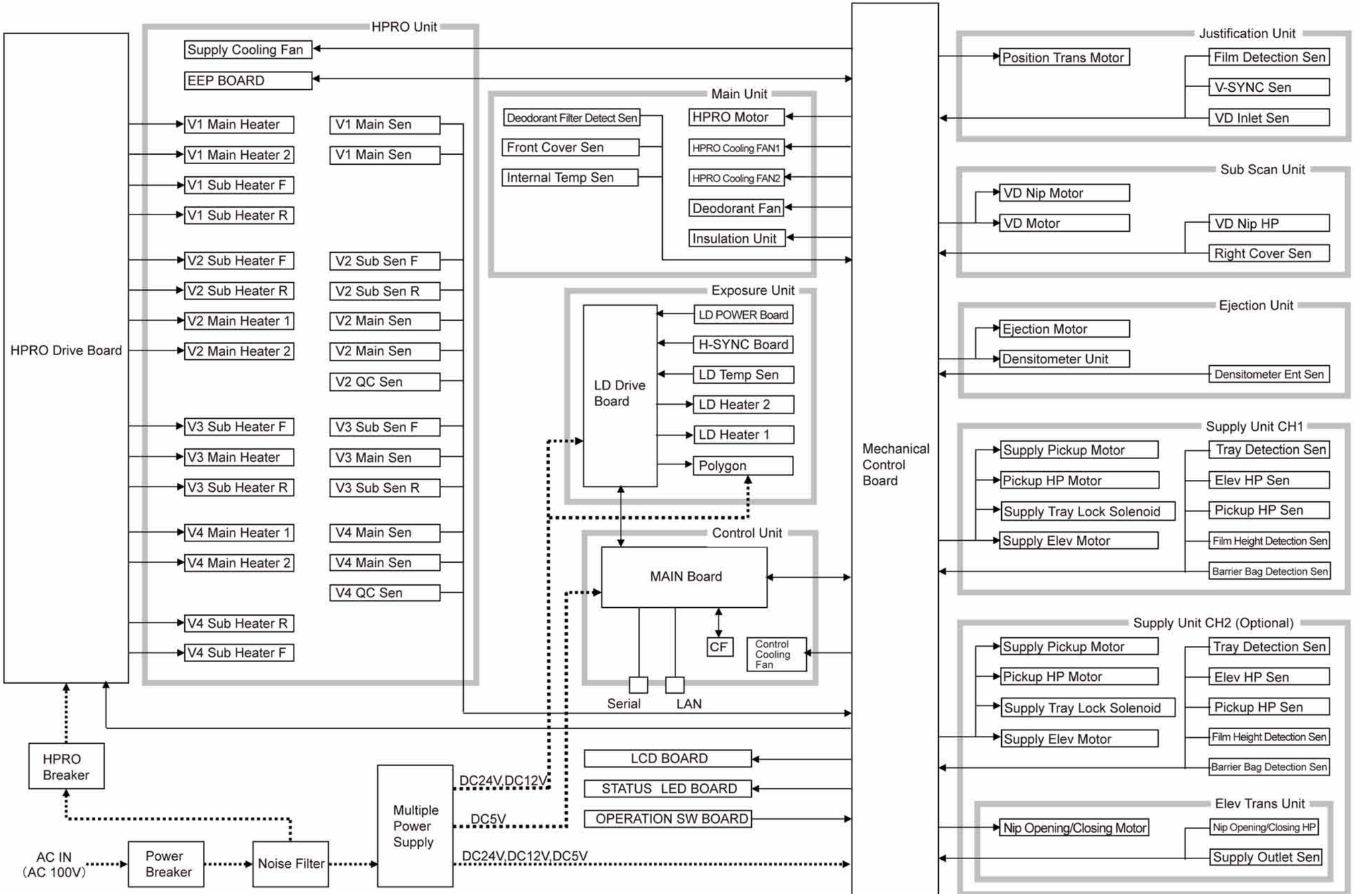
No.	Item	Format	Max. number of characters	Remarks
1	LUT reception	“G” %1d	1 character	• “G” when the Presentation LUT data reception flag is received. • The received LUT number (1~7) when the Presentation LUT data reception flag is not received.
2	Contrast	% 2d	2 characters	Received (2011,1031) contrast value (-7~7)
3	Density	% 2d	2 characters	Received (2011,1030) density value (-7~7)
4	Interpolation No	%1d	1 character	Received (2010,0080) Correction number (1~7) requested from flat smooth type.
5	Polarity	“N” “P”	1 character	• “N” when received (2020,0020) polarity is “NORMAL” and received (0028,0004) optical measurement construction is “MONOCHROME1” • “P” when received (2020,0020) polarity is “NORMAL” and received (0028,0004) optical measurement construction is “MONOCHROME2” • “P” when received (2020,0020) polarity is “REVERSE”, and received (0028,0004) optical measurement construction is “MONOCHROME1” • “N” when received (2020,0020) polarity is “REVERSE” and received (0028,0004) optical measurement construction is “MONOCHROME2”.
6	Maximum density	%3d	3 characters	Received (2010,0130) maximum density
7	Minimum density	%3d	3 characters	Received (2010,0120) minimum density
8	Total number of films	%6d	6 characters	Number of films output from the server PC (count-up from print end command)
9	Version	%-11.11s	11 characters	Version of server PC installed in Drypro 832
10	SERIAL NO.	%-5.5s	5 characters	Installed Drypro 832 main unit serial number
11	CH Number	%-2.2s	2 characters	xx part of received (2011.1060) modality ID “xx:yyyyyyyyyyyy”
12	SCU name	%-12.12s	12 characters	yyyyyyyyyyyy part of received (2011.1060) modality ID “xx:yyyyyyyyyyyy”
13	PrintIndexNo	%03d	3 characters	Print management information
14	Page number	%03d	3 characters	Page number
15	DICOM Directory	%-15.15s	15 characters	Name of directory that stores DICOM received data that DCM created
16	Requested image size operation	“ ” “D” “R”	1 character	• (2020,0030) “ ” when requested image size is not received • (2020,0030) “D” when the requested image size is received but the requested image size cannot be output • (2020,0030) “R” when the requested image size is received, and the requested image size can be output
17	Requested image size	“000.00” “Xxx.xx”	6 characters	“000.00” when unspecified. Prints the specified size (e.g. “200.00”)

No.	Item	Format	Max. number of characters	Remarks
18	Magnification	“0.000” “Xx.xxx”	6 characters	“0.000” when unspecified. “X1.000” when image is printed at specified size. Prints the magnification when the minimizing process was performed (e.g. “X0.988”)

- When the number of characters does not reach the maximum number for each of the items, they are automatically shifted to the left and printed.
- Items are delimited by 1 character space.



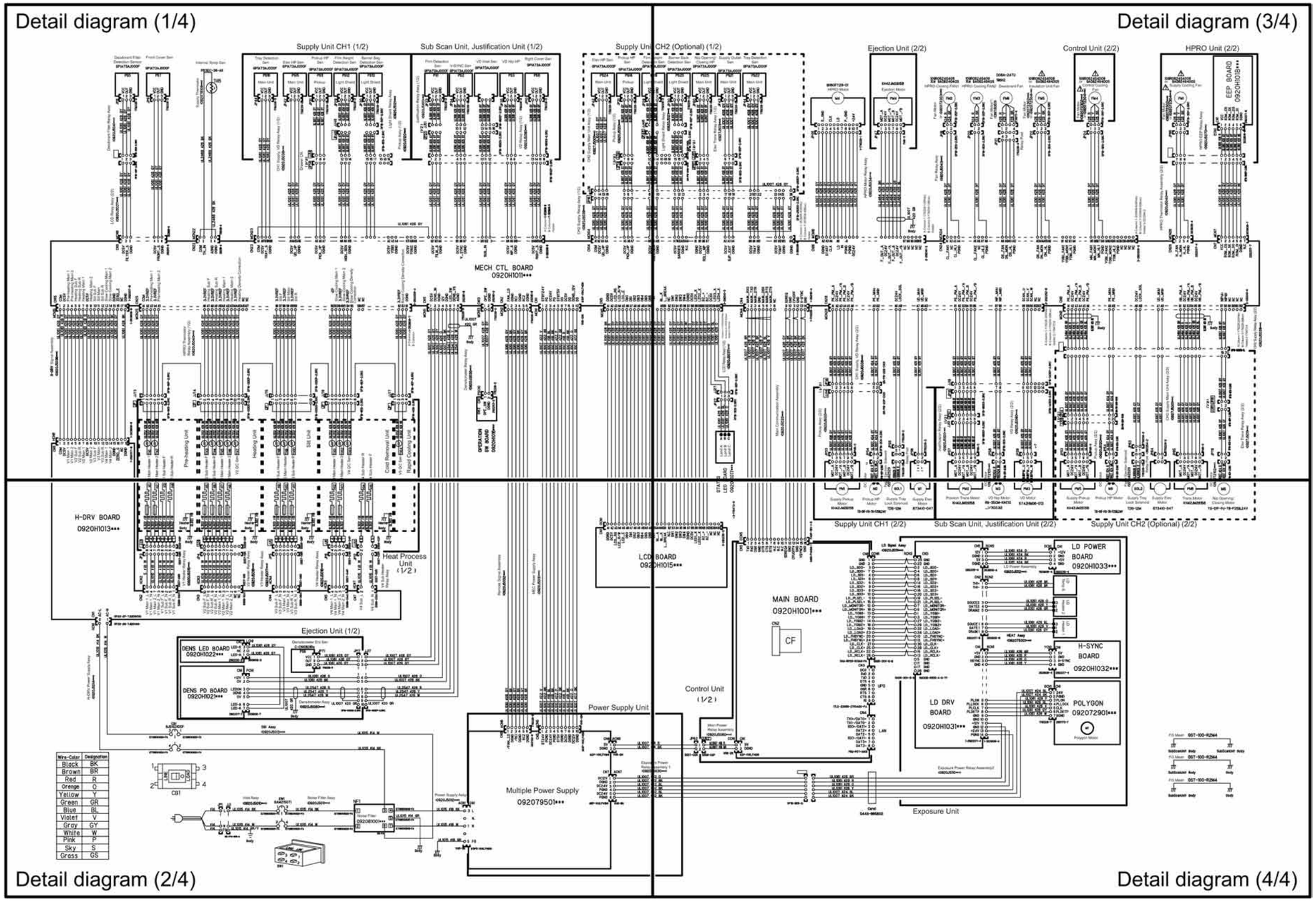
18.5 Block Diagram



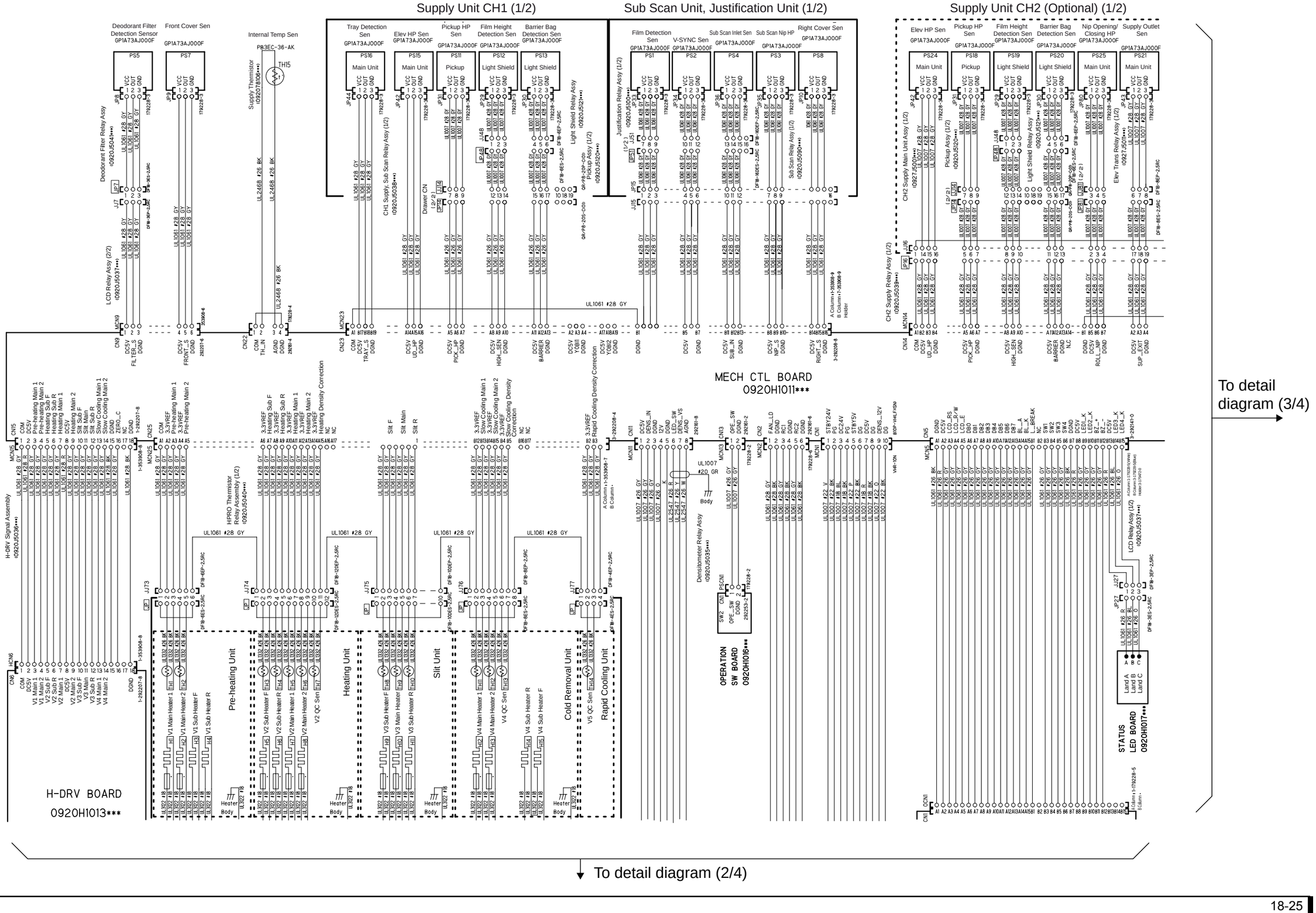
18.6 Writing Diagram

■ Overall Writing Diagram

Writing diagram is divided into 4 areas, Detail of each area is shown hereafter.
For detail, please refer to each area detail diagram.

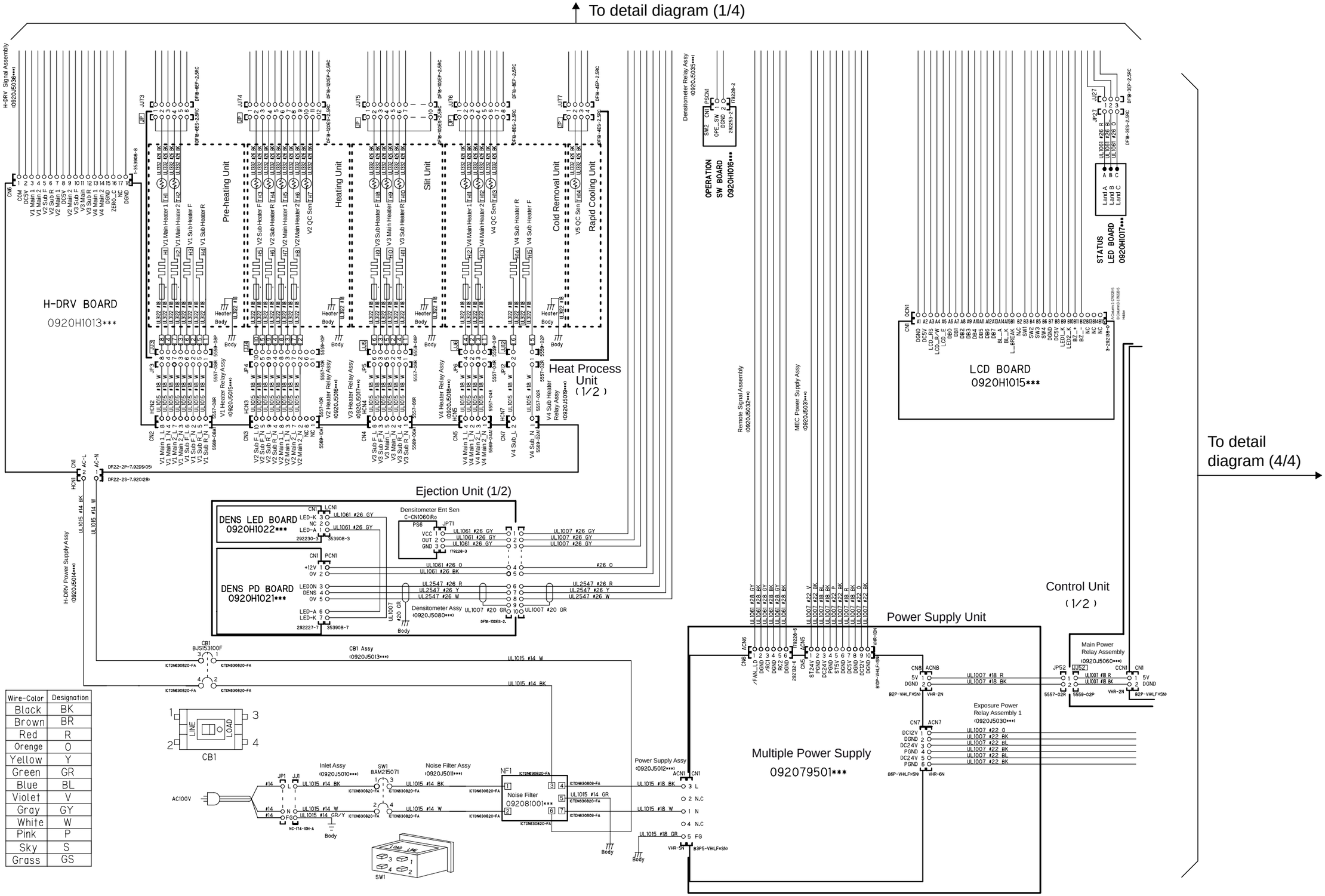


■ Detail diagram（1/4）



■ Detail diagram（2/4）

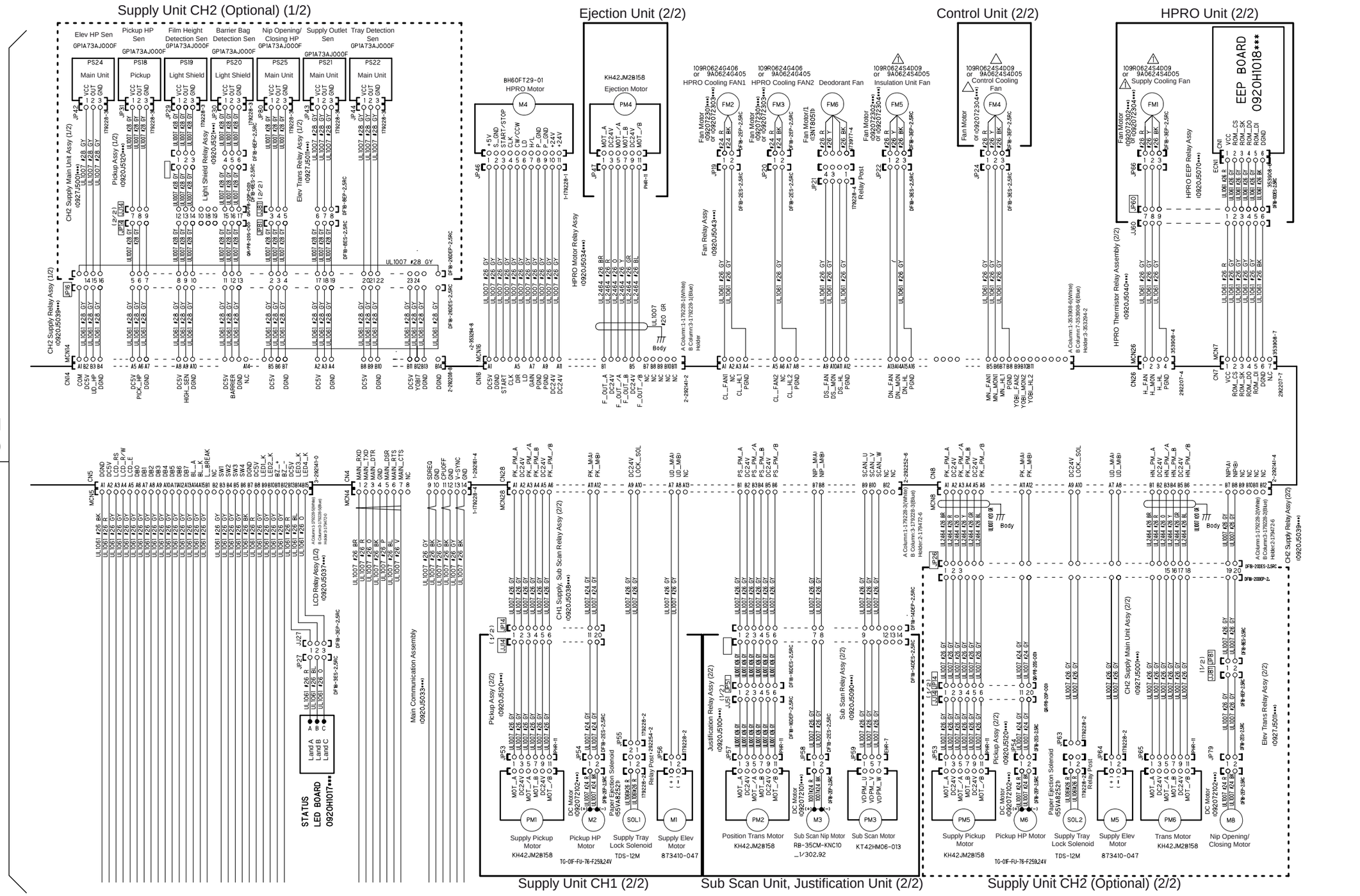
To detail diagram (1/4)



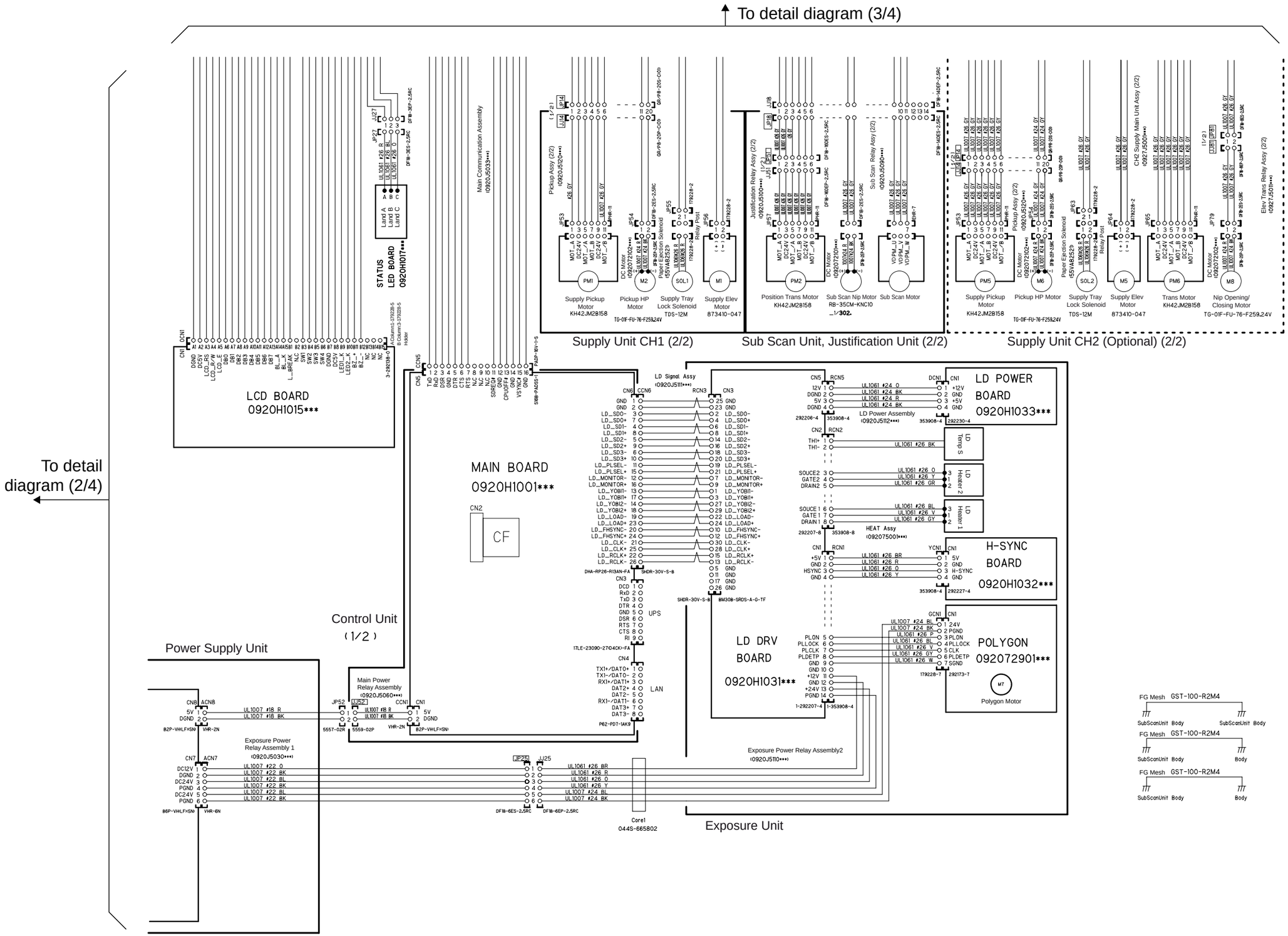
Wire-Color	Designation
Black	BK
Brown	BR
Red	R
Orenge	O
Yellow	Y
Green	GR
Blue	BL
Violet	V
Gray	GY
White	W
Pink	P
Sky	S
Grass	GS

To detail diagram (4/4)

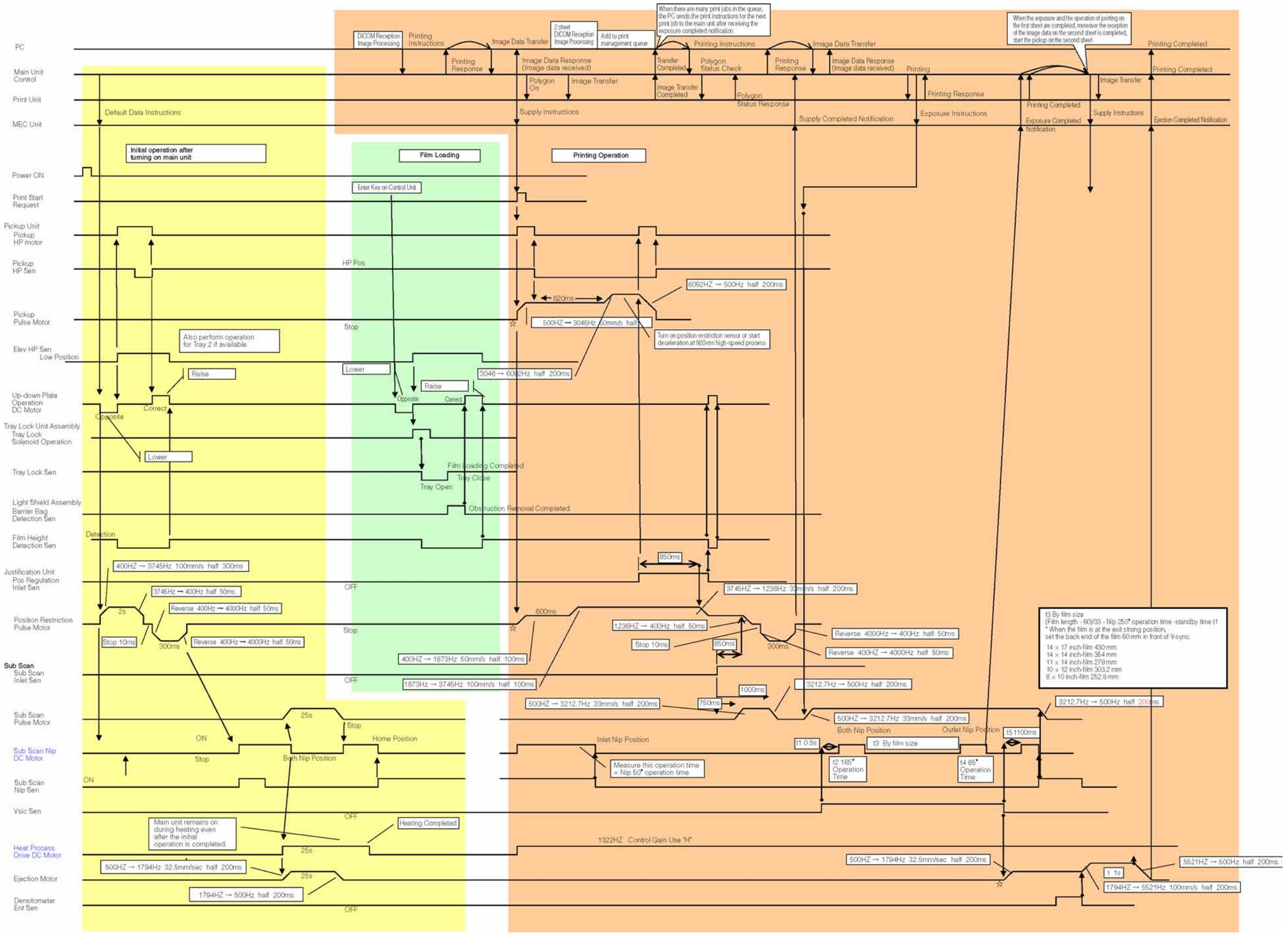
■ Detail diagram（3/4）



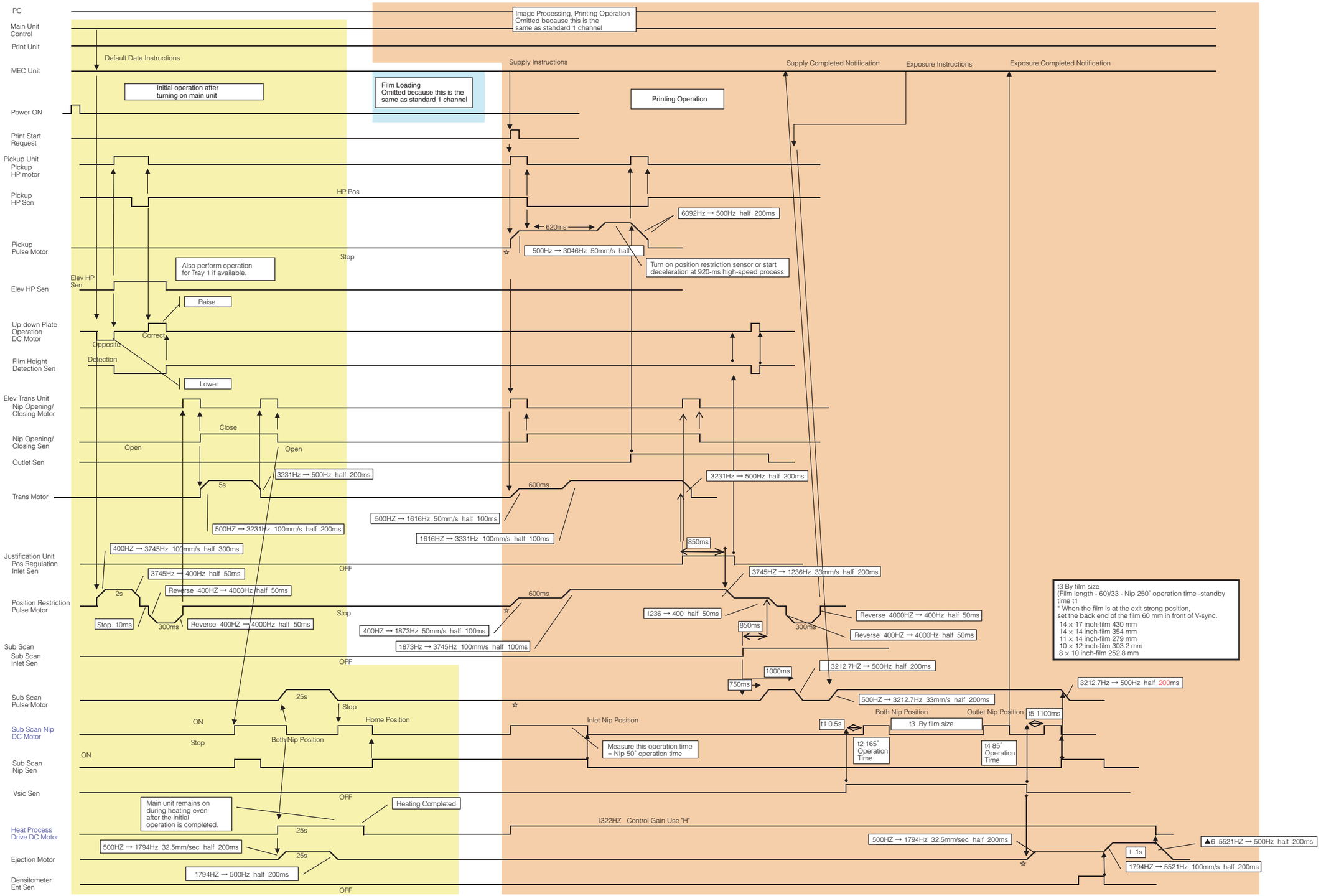
■ Detail diagram（4/4）



18.7 Printing Operation Load Timing Chart (Standard 1 ch)



18.8 Printing Operation Load Timing Chart (Standard 2 ch)



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