

Panasonic

Matrix Switcher Operating Instructions

Model No. **WJ-SX150**



Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not use near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the points where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-overs.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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PREFACE

Matrix Switcher WJ-SX150 is designed for a surveillance control system, which is composed of 16 cameras, 4 monitors and 4 system controllers.

System controllers are used to operate the surveillance control system.

In combination with Digital Disk Recorder WJ-HD500 Series, *WJ-HD100 Series or a time-lapse VCR, a surveillance system can be established in a local area.

* To use WJ-HD100 Series or a time-lapse VCR, you need to install Multiplexer Board WJ-SXB151 inside the matrix switcher.

FEATURES

- Multiple sequence modes: 16 tour sequences and 4 group sequences
- Control data and timing pulse (VD2) multiplexed over a coaxial cable
- Cable compensation selectable depending on the cable length
- Cameras (or images on the monitors) selectable with alarm (sensor)
- RS-485 cameras connectable
- Multiscreen display, electronic zooming, still spot (multiscreen) picture and multiscreen sequence available with Multiplexer Board WJ-SXB151
- Disk Recorder WJ-HD500 Series controllable
- Connectable to external devices supporting PS-Data

PRECAUTIONS

- **Refer all work related to the installation of this product to qualified service personnel or system installers.**
- **Do not block the ventilation opening or slots on the cover.**

To prevent the appliance from overheating, place it at least 5 cm (2 inches) away from the wall.
- **Do not drop metallic parts through slots.**

This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- **Do not attempt to disassemble the appliance.**

To prevent electric shock, do not remove screws or covers.
There are no user-serviceable parts inside. Contact qualified service personnel for maintenance.
- **Handle the appliance with care.**

Do not strike or shake, as this may damage the appliance.
- **Do not expose the appliance to water or moisture. Do not try to operate it in wet areas.**

Take immediate action if the appliance gets wet. Turn the power off and refer servicing to qualified service personnel. Moisture can damage the appliance and also cause electric shocks.
- **Do not use strong or abrasive detergents when cleaning the appliance body.**

Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.
- **Do not operate the appliance beyond its specified temperature, humidity, or power source ratings.**

Use the appliance at temperatures within -10°C - $+50^{\circ}\text{C}$ (14°F - 122°F) and humidity below 90 %.
The input power source for this appliance is 120 V AC 60 Hz.
- **We recommend that you note down your settings and save them. Power or battery failure may erase the settings you enter.**

DOCUMENT CONVENTION

This operating instructions use the following convention when describing the use and operation of this unit.

Unit: Panasonic Matrix Switcher WJ-SX150

System controller: Panasonic System Controller WV-CU360C or WV-CU360CJ

Recorder: Panasonic Digital Disk Recorder WJ-HD500 Series, WJ-HD100 Series* or a time-lapse VCR* (*Available only when the multiplexer board is installed).

Receiver: Panasonic Indoor Receiver WV-RC100 or Outdoor Receiver WV-RC150

Multiplexer board: Panasonic Multiplexer Board WJ-SXB151

Notes:

- Text with this appearance is a special instruction, rule, or side comment related to the topic.
- In these operating instructions, WV-CU360C is used for the illustrations and descriptions of the system controller.

FEATURES OF THE MATRIX SWITCHER SYSTEM

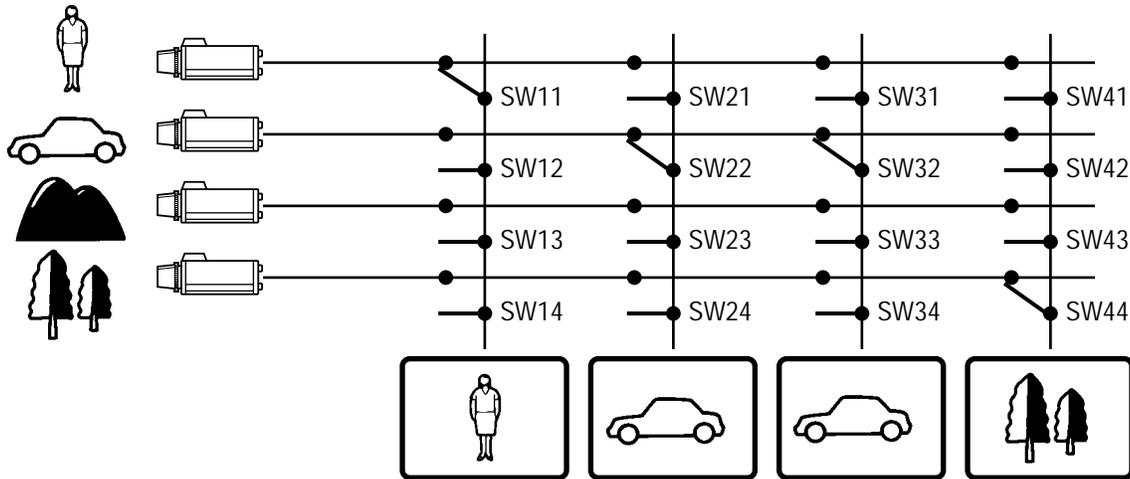
MATRIX SWITCHER SYSTEM DESCRIPTIONS

Matrix Switcher System WJ-SX150 is a surveillance control system, which is composed of cameras, recorders, and this unit (the matrix switcher).

This system has various functions for surveillance control.

The following are the descriptions about the functions.

■ Crosspoint Switches



All matrix switchers, no matter how complicated and sophisticated they may be, depend on crosspoint switches to perform the basic operations of the switcher. The crosspoint switches form a rectangular array of rows and columns in which any row may be connected to any column.

In the figure shown above, the rows are connected to video cameras and the columns are connected to video monitors.

By closing a certain crosspoint switch we may connect any camera to any monitor.

In the example above, by closing switch SW12 the camera 2 is displayed on the monitor 1. Likewise, by closing SW24 camera 4 is displayed on the monitor 2.

■ Monitoring Mode

This system can control up to 16 cameras, 4 monitors, and 4 system controllers.

There are two surveillance ways:

One is the spot mode that associates one camera with one monitor. The other is the sequence mode that sequentially displays the images through more than one camera.

● Spot Mode

The specified camera images are continuously displayed on a given monitor.

When another camera input is accepted, the images are replaced by new ones.

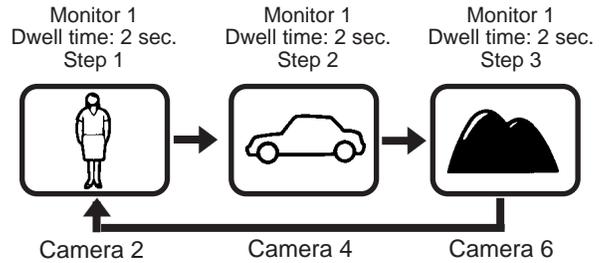
● Sequence Mode

More than one camera's images are sequentially displayed for a fixed time.

The illustration shows an example of the sequential display of images through Camera 2, 4, and 6 on Monitor 1.

Before use, the parameters* of the sequence need to be configured and uploaded to the unit.

* Example: Camera selection, monitor selection, and dwell time (the time to display each image).



■ System Control

System controllers are used to control the equipment connected to this system.

● About System Controller

This matrix switcher system has four data ports: DATA 1 to 4. The ports DATA 1 to 3 supports the terminal mode, and the DATA 4 port supports both the terminal mode and Panasonic Security Data (PS-Data) Systems. These are the operation mode of the matrix switcher. When using the DATA 4 port, you can employ either of them. Refer to p. 14 for details of the terminal mode. Refer to p. 22 for notification about PS-Data System.

● Camera control

As the illustration, this unit sends the control data and VD2 timing pulse to the cameras.

On the contrary, the cameras send the video signal and state signal to the unit.

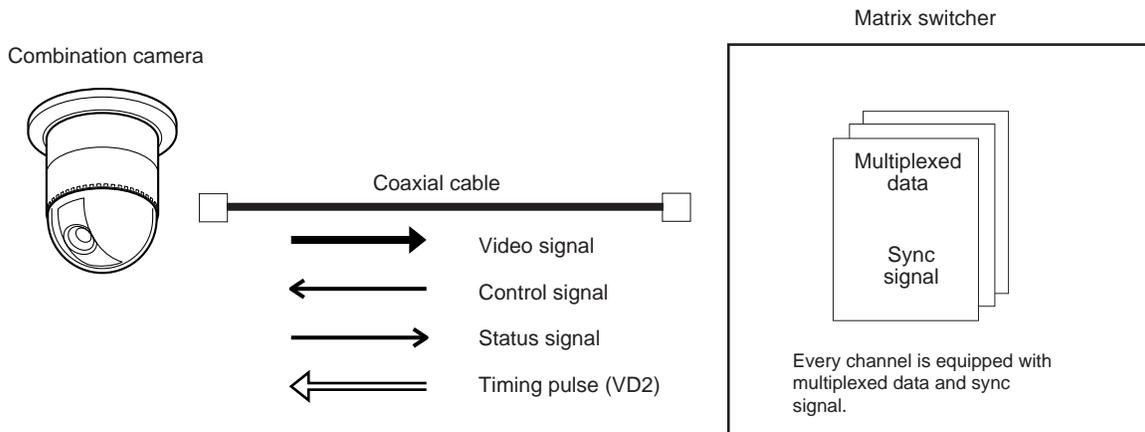
Control data is supplied via the coaxial cable from the unit, multiplexed with the camera image.

The unit is equipped with the circuit to multiplex or separate the video signal and control data with each channel.

These connections enable the control of the equipment from the system controller.

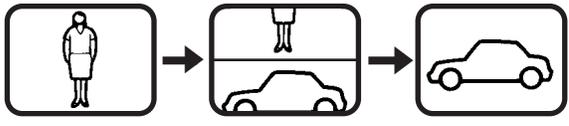
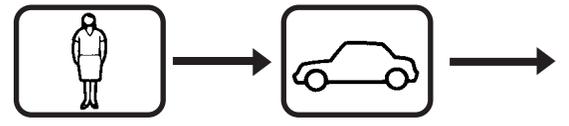
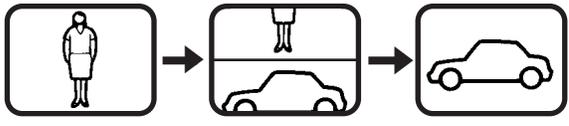
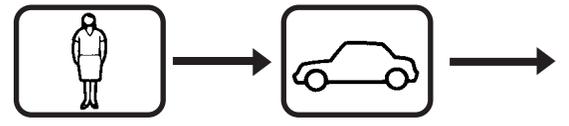
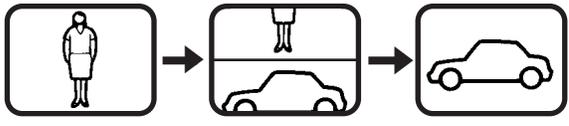
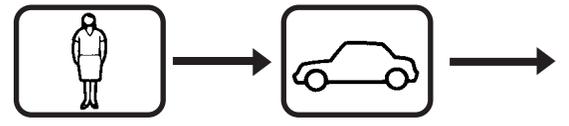
When using Panasonic RS-485 cameras, the unit can send the separated control data to them.

RS-485 cameras can be installed at longer distance from the matrix switcher than cameras that multiplex the control data.



Each signal functions as the illustrations in the next page.

VD2 provides the timing pulse of the same phase to prevent the unconformity during the switching of the image in a sequence mode.

Signal type	Function				
Control signal	Controls camera functions (pan/tilt, zooming, focusing, lens iris, preset position) and camera site accessories.				
Status signal	Shows camera status.				
Timing pulse (VD2)	<p>This signal is supplied to the unit to each camera.</p> <p>Each figure shows the picture status with or without the timing pulse.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: center; vertical-align: middle;">VD2 OFF</td> <td style="text-align: center;">  </td> </tr> <tr> <td style="text-align: center; vertical-align: middle;">VD2 ON</td> <td style="text-align: center;">  </td> </tr> </tbody> </table>	VD2 OFF		VD2 ON	
VD2 OFF					
VD2 ON					

■ Example of a SYSTEM with Basic Functions

The illustration in the next page shows the surveillance system in a parking lot as an example.

Before the connections, the matrix switcher's system configuration* and the recorder's alarm recording setting are necessary.

Example: Operations of cameras and other connected equipment during an alarm input

1. The infrared sensor sends an alarm signal to the unit when detecting a car comes in.
2. The unit enters the sequence mode associated with Monitor 1.
At the same time, the unit controls the digital disk recorder to change its recording mode into the alarm-recording mode.

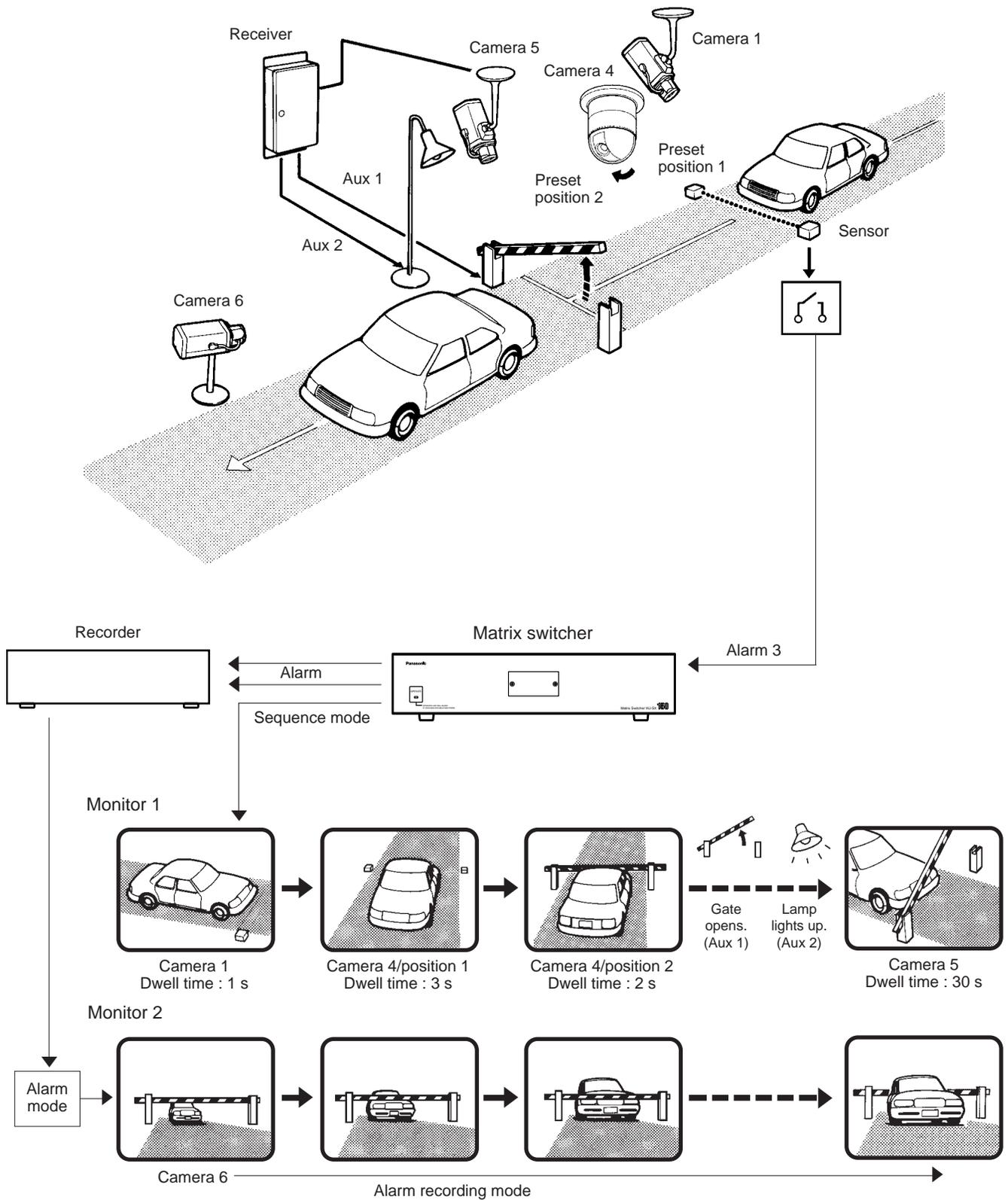
Monitor 1 is associated with the following sequence.

```

Displaying Camera 1's image
↓
Displaying Camera 4's image (Preset Position 1)
↓   Camera 4 moves from preset position 1 to 2 according to the sequence setting.
Displaying Camera 4's image (Preset Position 2)
↓
Controlling AUX 1 and 2 (The gate will open and the lamp will light up.)
↓
Displaying Camera 5's image

```

Monitor 2 displays Camera 6's image consistently in the spot mode.
 Operators will observe the parking lot by looking at these images on a monitor in a management office.



* To use WJ-HD100 Series or a time-lapse VCR as a recorder, you need to install a Multiplexer board.

TERMINAL MODE DESCRIPTIONS

In the terminal mode, each external device (such as a camera, monitor, system controller, or a recorder, etc.) has the name and number (Camera 1, etc.). When you control a device, you are to select the device number and execute the selection. For example, before controlling Camera 1, you will press the numeric button 1, and then press the CAM (SET) button. Each operator has a level and priority. When you try to control a device beyond the level and priority, the PROHIBITED or BUSY indicator will light up to inform you that you cannot control it.

■ Log-in/Log-out

Before starting the system operation, it is necessary to input an operator ID and a password from a system controller.

The system identifies the operator ID and password by comparing the registered data. If the ID and password are correct, the system will enter the operation mode.

This identification is called log-in. On the contrary, the termination of the system operation is called log-out.

Log-in/log-out has two ways: One is the manual log-in/log-out and the other is auto log-in/out.

Through the auto log-in, an operator can login the system without entering a password, after turning the power on.

Through the auto log-out, an operator can logout of the system when not operating the system for a fixed time.

The way of log-in/log-out and the time for auto log-out is configurable when setting up the system.

When configuring the auto log-in, it is necessary to assign an operator ID to each data port.

● Operator Registration

When operating the system, the operator registration is necessary.

Up to 16 operators can be registered and filed by their operator IDs.

They are registered in WJ-SX150 Administrator Console.

The following are the properties, which can prevent the oper-

ation conflict.

Level Setting

16 operators are classified in the level from 1 (the highest) to 3 (the lowest).

A higher-level operator can control more functions.

Password Setting

Up to 5 digit numbers can be registered as a password.

When an operator logs in, the system identifies the operator ID and password by comparing the registered data.

If they are correct, the operator can control the system.

Priority Setting

The system classifies the operators in priority from 1 to 16.

This setting includes the control coverage that is configured by level, and the priority in case of the conflict with the same-level operator.

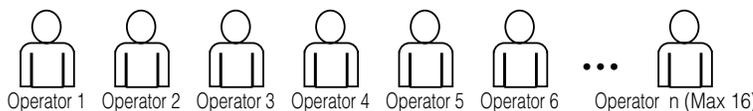
Operable Cameras and Sequences

This setting assigns each operator the cameras and sequences operable by the level.

Notes:

- Each operator's ID, password, level and priority need to be configured in WJ-SX150 Administrator Console.
- Log-in/log-out is configurable in SETUP MENU and WJ-SX150 Administrator Console.
- The level and priority are assigned to each operator. Operators cannot control the system beyond the assignment. Even within the level and priority, a device controlled by a higher-level operator is not operable.
- Manual log-in/log-out or auto log-in/log-out is assignable to data ports DATA 1 to 4.

• Description of Operator Registration



	Operator 1	Operator 2	Operator 3	Operator 4	Operator 5	Operator 6	Operator n (Max 16)
ID	150	1	100	101	102	103	-
Password	150	12345	100	101	102	103	-
Level	1	1	1	1	2	3	-
Priority	1	2	3	4	5	6	-
Camera Operation	1	1	1	1	1	1	-

Level Table

- SX150 Setup
- Camera Setup
- Alarm History Display
- Video Loss History Display
- System Status Display
- Single Alarm Reset
- All Alarm Reset
- ⋮

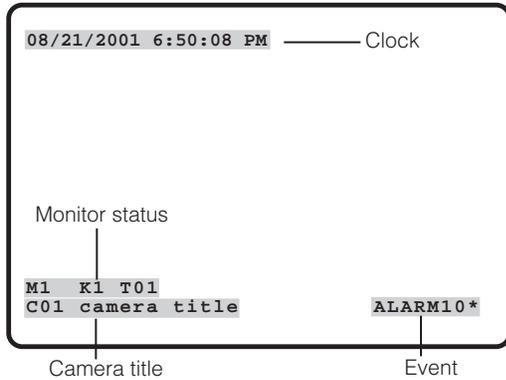
Items operable by the level are set to ON.

Camera Operation Level

- 1: This level can select and control the camera.
- 2: This level can only select the camera.
- 3: This level can neither select nor control the camera.

■ Monitor-related Functions

The following functions related to monitors are configurable.



● Monitor Selection

It is necessary to select a monitor when controlling the monitor-related functions, such as camera images or SETUP MENU.

● Information Displayed on the Monitors

The following information is displayed on monitors.

Time and Date

Time and date are displayed.

The date display is selectable from five patterns, and the time display is selectable from 24- or 12- hour system.

The date display pattern (Example: August 21, 2001)

21/08/2001
08/21/2001
21/Aug/2001
2001/08/21
Aug/21/2001

Camera Title

The camera number and characters (up to 20) can be configured as a camera title.

The title is displayed in one line.

Monitor Status

The following status is displayed in one line.

Mn (Monitor number)*
Kn (Controller number)*
Tnn (Monitor mode: the example shows the tour sequence)*

* "n" is the number.

Event

The information related to system operation is displayed.

An alarm control, alarm suspension, and timer event are the example.

ALARMnn (The alarm is operating.)
ALARMnn ACK (The alarm has been acknowledged.)
Tnn (Timer event: tour sequence number)
LOSS CHnn (the video loss channel number)
ALM SUSPENDED (The alarm is suspended.)

STILL* (Still spot** or still multiscreen display is activated.)

* "STILL" appears when a Multiplexer board is installed inside the matrix switcher.

**Available only during playback

Note: When pressing the associated numeric button (1 to 5) while holding down the OSD button, information is turned on or off.

● The Display Position

The display position of the information is adjustable with the joystick on the system controller.

● Priority Lock

Priority lock is the function to prevent other operators' control of a monitor even after the system log-out.

While the priority lock is active, the monitor is operable by the locking operator and higher-priority operators.

● Sequence Mode

Camera images are displayed for a fixed time, and they are sequentially switched.

The change from a tour sequence into the spot mode is also possible.

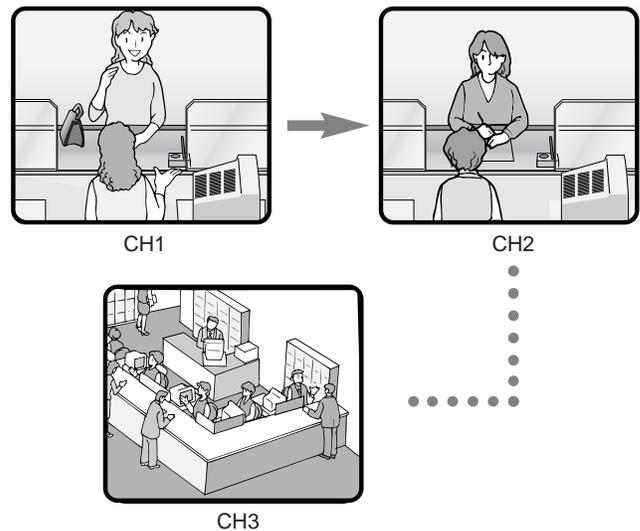
Before use, the parameters of the sequence, such as a camera or monitor selection and dwell time need to be configured.

There are two sequences:

- Tour sequence
- Group sequence

Tour Sequence

The images through Camera 1 to 16 are displayed on a given monitor in the desired sequence.



A tour sequence is consisted of 16 steps and up to 16 sequences are configurable.

Up to 30 seconds are selectable as each step's dwell time. Each step can call the desired preset position of a camera to be displayed.

In each step, the desired preset position of a camera can be called and displayed.

Tour sequences are configurable in SETUP MENU and WJ-SX150 Administrator Console.

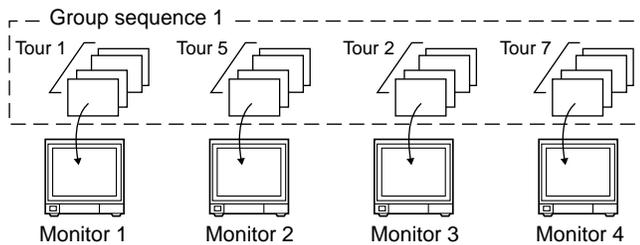
Group Sequence

Group sequence is a function to display up to 4 tour sequences in a group on up to 4 monitors. More than one sequences can be activated at one time by registering each tour sequence in a group.

Up to 4 tour sequences can be registered in a group.

Notes:

- Up to 4 group sequences are configurable in WJ-SX150 Administrator Console. The configuration in the matrix switcher's SETUP MENU is unavailable.
- The black picture is displayed when the following are included in a tour or group sequence: a camera channel without image or the image restricted to the operator.



● Multiscreen Display (4, 9, and 16 Screens)

With a recorder, more than one camera images can be displayed in 4, 9, and 16 multiscreen segments.

Refer to p. 115 EXPANDED FUNCTION for details.

■ Camera-related Functions

This system can operate the following camera-related functions.

Notes:

- When operating the motorized zoom lens, a combination camera is necessary.
- A motorized zoom lens needs to be installed on a camera. Confirm the system components.

● Camera Selection

The camera needs to be selected when controlling the camera-related functions such as a lens zoom, pan/tilt head, or spot image of a camera.

● Operating Zoom Lens

Note: Make sure that the lens selection switch (DC/VIDEO) is set to DC.

Focus

This setting adjusts the lens focus.

An auto-focus camera can automatically adjust the focus.

Zoom

This setting adjusts the lens zoom rate.

Iris

This setting adjusts the lens iris .

● Pan/Tilt Head Control

Pan/Tilt

Camera rotates on the pan/tilt heads.

There are two ways of control:

- Manual control by the joystick
The joystick on the system controller can control a camera's pan/tilt head.
- Preset position control
Entering preset position number can automatically rotate the camera to the desired position.

It is necessary to register a camera's preset position numbers.

The specified cameras support the registration during the pan/tilt head control.

Notes:

- Depending on the system components, the specified combination cameras are not operable.
- The speed varies depending on cameras.
- Some cameras' pan/tilt speeds cannot be controlled by the joystick.
(Refer to the camera's operating instructions for details.)

Auto Pan

The camera automatically turns within the preset panning range.

Sequence Mode

The camera turns in the sequence of preset positions in numerical order.

Sort Mode

The camera turns in the sequence of preset positions counterclockwise from pan/tilt starting point.

Patrol Learn

The combination camera can learn and reproduce a routine of manual operation.

There are two ways of patrol learn:

- Learning during the operation
- Configuration in the camera's SETUP MENU

● Housing Control

The wiper or defroster of the camera housing can be controlled.

● External Equipment Control

When the camera is connected via a receiver, the external equipment connected to the receiver can be controlled.

● Controllable Camera-related Functions

The control is conducted while watching the camera images on the monitor.

- Changing to black and white pictures
- Camera function (Shortcut function)

Note: The specified cameras can control each function.
Confirm the functions of the connected cameras and external devices.

Changing to Black and White Pictures

Color images are changeable to black and white images. This function is intended for surveillance in a dark place such as an underground parking lot.

Camera Function (Shortcut Function)

The frequently-used functions are registered with the camera function button. Pressing the button can activate the registered functions. Refer to the camera's operating instructions for details on the registered functions.

● Camera Title

The titles for camera identification, which are displayed on the monitor, can be registered. For example, if a camera setting place is registered as a camera title, operators can be informed where the image is recorded. The title is displayed in one line.

The available character numbers:

20 (camera number and the characters)

The available characters:

ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789!#\$%&'()*=+* _;:,. */?

Notes:

- Camera title is configurable in SETUP MENU and WJ-SX150 Administrator Console.
- User font characters can be made through WJ-SX150 Administrator Console.

● Camera Cleaning

When using a combination camera, noise can occur on the monitor after the long-term use. In this case, the camera needs to be cleaned. Camera cleaning is configurable to be conducted at the designated day and time. The cleaning time is approximately 30 seconds per camera.

Notes:

- The images cannot be displayed while cleaning the camera. Use this function when continuous surveillance is not necessary, such as after-hours time.
- Cameras which are operating or being in the sequence mode are not cleaned.
- Camera selection will immediately stop the camera cleaning.
- If noise remains in the monitor even after the camera cleaning, there can be a malfunction. Stop using the camera and consult qualified service personnel.

■ Alarm-related Functions

This unit is equipped with 16 alarm input connectors. When an alarm input signal is accepted via one of them, the alarm-associated spot image or tour sequence image is displayed on the monitor. With the alarm image on the monitor, the unit notifies you of the alarm information with "ALARM nn (nn is the alarm number)."

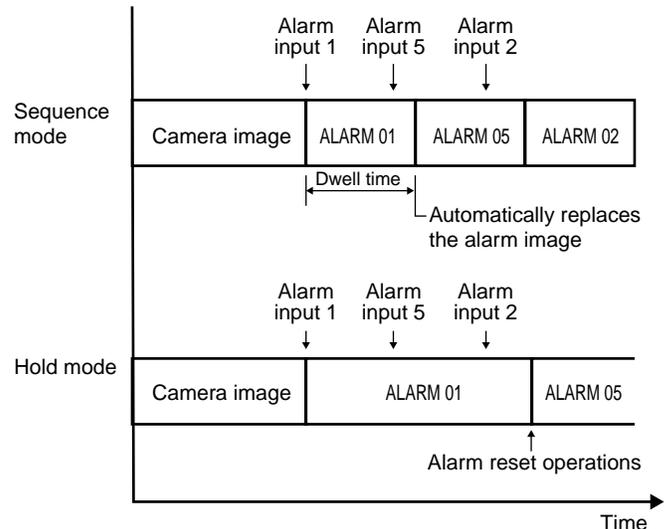
There are two ways to display the alarm-associated image:

- Sequence mode
- Hold mode

Notes:

- The camera (or tour sequence) and monitor need to be associated with the alarm number through the configuration in SETUP MENU (OSD) or WJ-SX150 Administrator Console.
- The mode is selectable and configurable in SETUP MENU (OSD) or WJ-SX150 Administrator Console.
- Even in the alarm mode, pressing the ACK button can control the camera's pan/tilt, zoom, focus and lens iris.
- When a recorder is connected to the matrix switcher, the alarm-related recording of the camera images is possible.

• Description about sequence mode and hold mode



● Sequence Mode

In the sequence mode, the unit displays the initial alarm image on the monitor until the dwell time ends, even when another alarm input is accepted. When the dwell time ends, the unit automatically replaces the alarm image with the next one.

● Hold Mode

In the hold mode, the unit continues to display the initial alarm image until the alarm reset. With the alarm image on the monitor, the unit notifies you that more than one alarm input is accepted with "*" next to "ALARM nn (nn is the alarm number)."

● Alarm Reset

The built-in timer automatically resets the alarm operation after the time specified in WJ-SX150 Administrator Console. After the reset, the monitor displays and the sequence will return to the state before the alarm input.

Note: When more than one alarm input has been accepted, only the newest can be reset.

● Alarm Suspension

Even when an alarm signal is input, the system will deactivate the alarm input and the alarm mode. When the alarm suspension is active, "ALM SUSPENDED" will appear on the monitor.

● Alarm History Table

This table displays the alarms that have occurred in the past.

The alarm order, date, time, alarm number and event can be identified.

Up to 100 item can be reserved, and they are overwritten from the oldest, after more than 100 item have occurred.

Notes:

- When turning off the unit, all the history will be deleted.
- Alarm history can also be identified on the PC.

ALARM HISTORY					1 of 2
NO	YYYY/MM/DD	HH:MM:SS	ALARM	EVENT	
016	2001/08/21	18:59:08	03	ALARM	
015	2001/08/21	18:58:08	03	ACK	
014	2001/08/21	18:57:08	03	RESET	
013	2001/08/21	18:55:08	07	ALARM	
012	2001/08/21	18:54:08	07	ACK	
011	2001/08/21	18:53:08	07	RESET	
010	2001/08/21	18:53:00	09	ALARM	
009	2001/08/21	18:52:08	09	RESET	
008	2001/08/21	18:51:08	06	ALARM	
007	2001/08/21	18:50:08	06	ACK	

● Video Loss History Table

While the unit's power is ON, the video signal loss from a camera or a recorder can occur by cable disconnection, etc.

In this case, video loss history will be reserved in the system, and this table will display the history.

The loss order, date, time, CAMERA IN number and event can be identified.

Up to 100 item can be reserved, and they are overwritten from the oldest, after more than 100 item have occurred.

As well as the video loss history, the date of the loss and recovery, the camera number and the loss status are displayed on the table.

Notes:

- When turning off the unit, all the history will be deleted.
- Alarm history can also be identified on the PC.

VIDEO LOSS HISTORY					1 of 2
NO	YYYY/MM/DD	HH:MM:SS	CH	EVENT	
012	2001/08/21	18:59:08	03	VIDEO RECOVER	
011	2001/08/21	18:58:08	14	VIDEO RECOVER	
010	2001/08/21	18:57:08	09	VIDEO LOSS	
009	2001/08/21	18:55:08	07	VIDEO LOSS	
008	2001/08/21	18:54:08	08	VIDEO LOSS	
007	2001/08/21	18:53:08	16	VIDEO LOSS	
006	2001/08/21	18:53:00	09	VIDEO LOSS	
005	2001/08/21	18:52:08	14	VIDEO LOSS	
004	2001/08/21	18:51:08	06	VIDEO LOSS	
003	2001/08/21	18:50:08	01	VIDEO RECOVER	

■ Timer Event

The built-in timer can automatically start or end the sequence or spot mode on the specified days, which is configurable in WJ-SX150 Administrator Console.

The available operations:

Tour sequence and spot mode

The available timer events:

Up to 30

Note: When displaying SETUP MENU while timer event is operating, the operation will stop.

■ System Status Table

The current system status can be identified.
The continuous display becomes possible by the OSD setting.

SYSTEM STATUS					
MON	CAM	MODE	KB	OPE	PRI
1	01	T01	K1	1	16
2	02	SPOT	K2	2	2
3	04	ALARM	K4	4	1
4	16	CAM	PC	30	1

- MON:** Monitor's unit address number
CAM: Camera No.
MODE: Operation mode
KB: Controller's unit address number
OPE: Operator number
PRI: Priority

■ Setup Procedures

To use the unit, it is necessary to configure the system through the following setup procedures:

- OSD setup with an active monitor and system controller
The basic parameters are configurable to operate the unit.
- WJ-SX150 Administrator Console with the PC
The setup utility can configure all the functions of the unit.

Refer to p. 52 WJ-SX150 SETUP MENU (OSD) and p. 64 WJ-SX150 ADMINISTRATOR CONSOLE for details.

■ Extended Functions

If a recorder is connected to the matrix switcher, the following will be available.

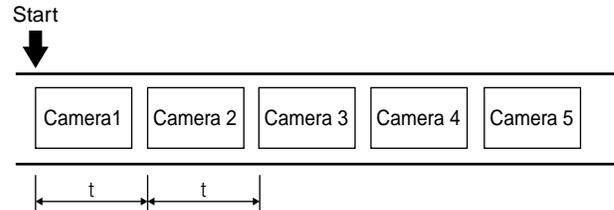
● Recorder Connection

The time-lapse recording and playback of all the camera images connected to the unit are possible.

Each camera's image and camera ID are recorded.

You can search and play back the desired camera's image by the camera ID.

The time-lapse recording is conducted as following.



The operations are conducted with the buttons on the recorder, system controller or PC.

- The setup of the recording device
- The start of the playback
- The stop of the playback
- The playback of the recorded images (the multiscreen display, still spot picture or still multiscreen picture, etc.)



- The search for the recorded image (the search by the camera ID, or the recorded time and date)
- Forward or backward search
- Forward of backward field advance
- Fast-forward
- Rewind
- Index

Refer to each device's operating instructions for details.

● Multiplexer Board Function

To use WJ-HD 100 Series or a time-lapse VCR as a recorder, you need to install a multiplexer board inside the matrix switcher. With the multiplexer board installation, the following will be available.

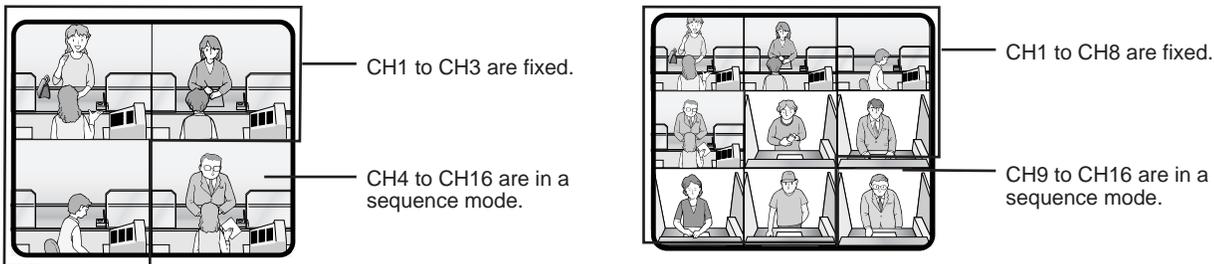
• Multiscreen display

More than one camera images can be displayed in 4, 9, and 16 multiscreens.

The sequence output is also available.

As the sequence output, the following are configurable in WJ-SX150 Administrator Console.

- The images are switched within 4 multiscreens. (QUAD)
 - The images are displayed in 4 multiscreens, and the images of Camera 4 to 16 are displayed in the sequence mode, at the right bottom of the monitor.
The images of Camera 1 to 3 are fixed.
(3+1→2S)
- The images are displayed in 9 multiscreens, and the images of Camera 9 to 16 are displayed in the sequence mode, at the right bottom of the monitor.
The images of Camera 1 to 8 are fixed.
(8+1→2S)



Notes:

- The black image will be displayed for a camera channel which is not connected to the camera.
- Even during the multiscreen display, pressing the camera number can display the camera's image in the spot mode.

• Still display

The desired image can be displayed in a still picture.

Live images can be displayed in multiscreen display.

Playback images can be displayed in spot/multiscreen display.

"STILL" will appear on the active monitor.

• Zoom

The desired image on the monitor can be zoomed up to two fold.

Note: This function is available only when a playback image is displayed in a spot picture.

• Alarm priority mode

When an alarm is activated and the alarm signal is input to the unit, the camera channel with the alarm input will be recordable according to the configuration in SETUP MENU and WJ-SX150 Administrator Console.

The following are configurable as the recording mode when the alarm is activated:

- The camera channel with the alarm input is given recording priority. (ALM-PRI)
- Only the camera channel with the alarm input is recorded. (ALM-ONLY)
- Up to 4 camera channels are assigned to an alarm input to record the images by priority. (GROUP)

Notes:

- The recording mode needs to be configured in SETUP MENU and WJ-SX150 Administrator Console in advance.
- Detailed settings of GROUP is configurable only in WJ-SX150 Administrator Console.

• **Motion Detector**

When the multiplexer board detects motions in the image, the multiplexer board sends an alarm signal to the unit. Then, the unit will send the alarm signal to the connected devices.

The areas can be divided in four segments, and the detection is conducted in each segment.

For example, this function can be applied to a time-lapse recording, which responds to the break-in at night.

Notes:

- The motion detector area needs to be configured in SETUP MENU in advance.
- The range of the motion detector is also configurable in the WJ-SX150 Administrator Console.

● **Digital Disk Recorder WJ-HD100 Series/Time-lapse VCR**

The multiplexed recording and playback of all the camera images connected to the unit are possible.

Each camera's image and camera ID are recorded.

The camera ID can search and play back the desired camera's image.

The digital disk recorder (WJ-HD100 Series) connected to the unit and time-lapse VCR have the following functions.

The operations are conducted with their buttons or the system controller or the PC.

- The setup of the recording device
- The start of the playback
- The stop of the playback
- The playback of the recorded images (the multiscreen display, still spot picture or still multiscreen picture, zoom spot picture)
- The search of the recorded image (the search by the camera ID, or the recorded time and date)
- Forward or backward search
- Forward or backward field advance
- Fast-forward
- Rewind
- Index

Refer to each device's operating instructions for details.

Notes:

- When recording on the WJ-HD100 Series or time-lapse VCR, an optional Multiplexer board needs to be installed in this unit.
- Only Panasonic time-lapse VCRs supporting RS232C are operable.

NOTIFICATION ABOUT PS-DATA CONTROLLER OPERATION

In the factory default setting, you can control the unit, if you connect a PS-Data system controller to the DATA 4 port. For example, if you connect a PS-Data unit supporting network connections (refer to p. 43), remote-control of the unit and the PS-Data units will be available with a system controller or PC.

When you use a PS-Data system controller, take notice the following:

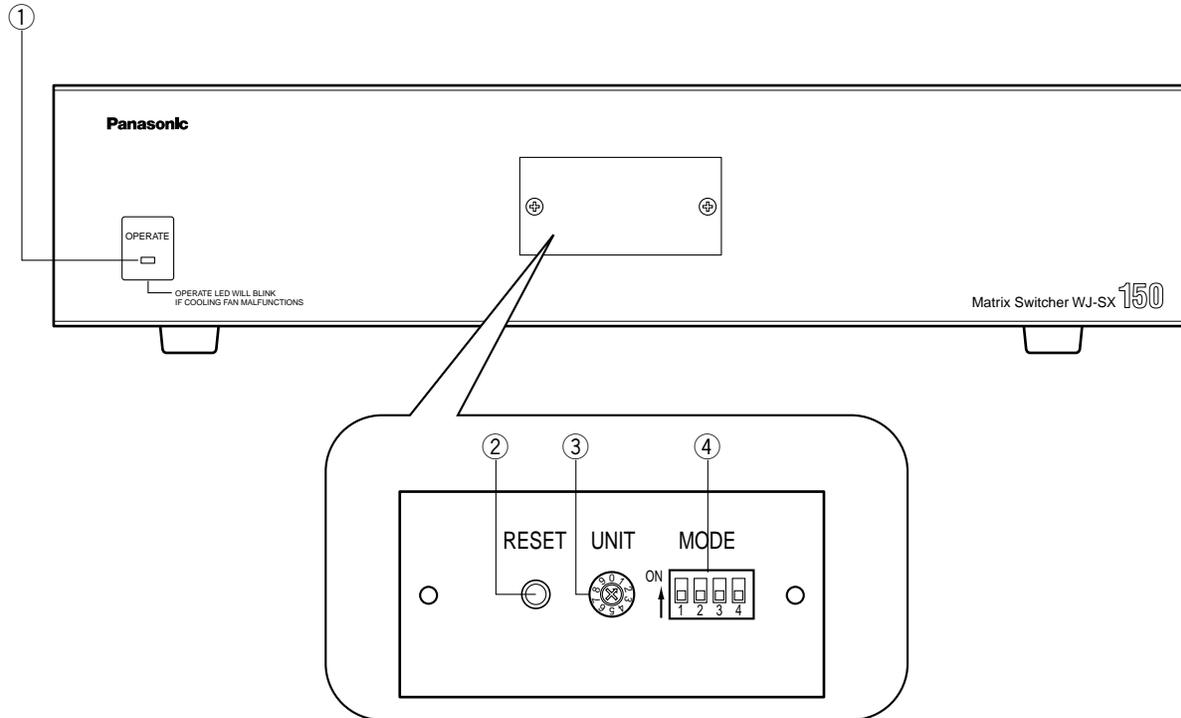
- The administrator authorization and log-in/log-out procedure differs from the unit. They are conformed to the system controller. Refer to the system controller's operating instructions.
- Use the PS-Data template supplied with the system controller, as the operating procedures differ from those of the terminal mode. (Refer to pp. 107 to 113.)
- When connecting a recorder to the unit, you may have to configure the settings of the unit and recorder, depending on the recorder's available functions and connections. (Refer to pp. 41 to 45.)

DETAILED PRODUCT DESCRIPTION

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

■ WJ-SX150 Matrix Switcher

● Front View



① Operation indicator (OPERATE)

Lights up when the power of the unit is turned on.

Note: The indicator will blink to indicate rising temperature in the matrix switcher.

When the indicator blinks, turn the power off and refer servicing to qualified service personnel.

② Reset button (RESET)

Resets and restarts the unit.

Note: The system configuration is not reset.

③ Unit number selector (UNIT)

This selector is reserved for future use.

Normally, set this switch to "1".

④ Mode selector (MODE)

Selects the unit's operation mode.

Normally, set all switches to OFF (NORMAL mode) as shown in the figure.

MODE SW SETUP	
ON ↑ 	NORMAL
ON ↑ 	SX150 SOFTWARE UPLOAD
ON ↑ 	MULTIPLEXER SOFTWARE UPLOAD

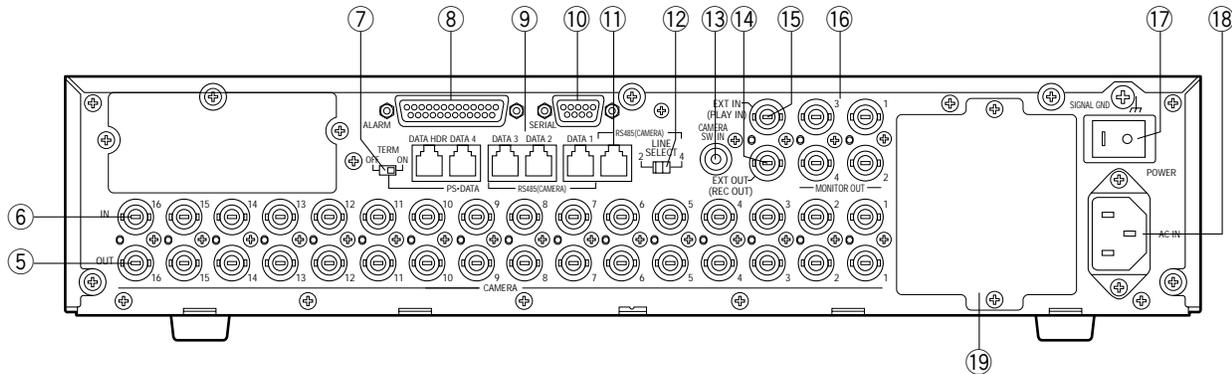
SX150 SOFTWARE UPLOAD:

Set the switches to this position when you update the firmware of the unit. (Refer to the operating instructions of the multiplexer board.)

MULTIPLEXER SOFTWARE UPLOAD:

This mode is reserved for future use.

● Rear View



⑤ Camera Output connectors (CAMERA OUT 1–16)

The video signal connected to the CAMERA IN connector is supplied at these connectors.
When the power of the matrix switcher is turned off, no signal is supplied at these connectors.

⑥ Camera Input connectors (CAMERA IN 1-16)

Connect to cameras or camera site accessories.
These connectors accept either a composite color or B/W video signal from a camera.
In addition, the VD2 signal to synchronize the vertical timing of the cameras, and data to control camera site devices are multiplexed at these connectors.

⑦ Termination selector (TERM ON/OFF)

When you connect a PS-Data system controller to the DATA 4 port, this selector turns the unit's termination switch to ON/OFF.
The factory default setting is ON.

Note: When you connect a terminal-mode system controller to the DATA 4 port, set this selector to ON.

⑧ Alarm port (ALARM)

Connects to alarm sensors.
Accepts the alarm input from the associated alarm sensors.

⑨ Data ports (DATA 1/2/3/4/DATA HDR)

- DATA 1 to 4 connect to the system controller.
DATA 1 to 3 can connect to RS-485 cameras with the configuration in WJ-SX150 Administrator Console. (Refer to p. 81.) DATA 4 can connect to the system controller via the PS-Data protocol.
- DATA HDR connects to a recorder.

⑩ Serial port (SERIAL)

Connects to a PC for the system configuration through WJ-SX150 Administrator Console.

⑪ RS-485 Camera port

Connects to an RS-485 camera.
Daisy chain connection is also available.

⑫ Line selector (LINE SELECT 2/4)

Lets you select either full duplex (4 lines) or half duplex (2 lines) for RS-485 cameras.

⑬ Camera Switching Input connector (CAMERA SW IN)

The camera switching pulse from the time lapse VCR is supplied to this connector.
The camera switching interval (Sequential Dwell Time) can be synchronized with the time lapse mode set in the associated time lapse VCR.

⑭ External Output connector (EXT OUT/REC OUT)

The recording signal for the recorder is provided via this connector.

⑮ External Input connector (EXT IN/PLAY IN)

A playback or live images from the recorder are supplied to this connector.

⑯ Monitor Output connectors (MONITOR OUT 1/2/3/4)

Connect to monitors.
The video output signals are supplied to the monitors at these connectors.

⑰ Power switch (POWER)

Turns the power of the matrix switcher on and off.

⑱ AC Inlet socket (AC IN)

To use the unit, plug the power cord (supplied as a standard accessory) into this socket and connect it to an AC outlet.

⑲ Blank panel

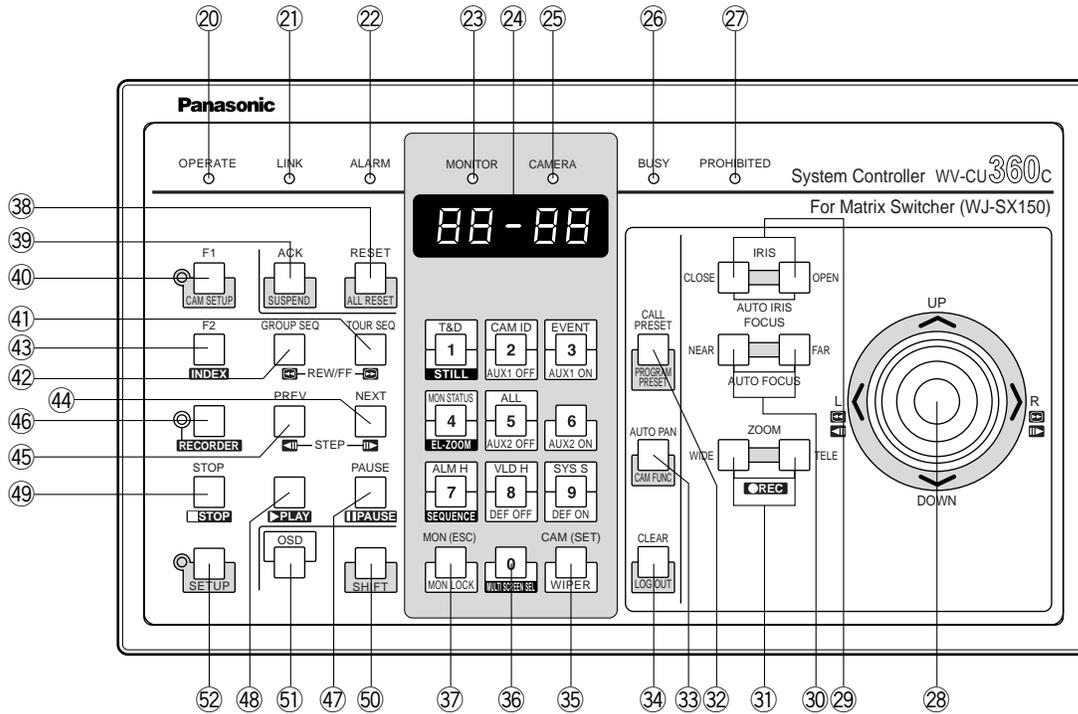
When the Multiplexer board installed in the unit, remove this panel and then attach the cooling fan inside the unit. (Refer to the Multiplexer board's operating instructions.)

Note: Fan unit needs replacement after around 30 000 hours of operation.

■ WV-CU360C System Controller (TERMINAL MODE)

A template, on which "For Matrix Switcher (WJ-SX150)" is written, is provided with System Controller WV-CU360C. When using the template, place it on the surface of the controller.

In these operating instructions, this template's illustrations are used for descriptions.



● Front View

⑳ Operation indicator (OPERATE)

Lights up when the controller's power is turned on.

㉑ Link indicator (LINK)

Lights up when communication is established with the matrix switcher.

㉒ Alarm indicator (ALARM)

Lights up when an alarm condition exists.

㉓ Monitor indicator (MONITOR)

Lights up when the monitor number appears on the LED display.

㉔ LED Display

Displays the monitor number, camera number, numeric entry and error status, etc.

㉕ Camera indicator (CAMERA)

Lights up when the camera number appears on the LED display.

㉖ Busy indicator (BUSY)

Lights up when the higher-priority operator selects the camera or monitor you are currently operating. Operations from the system controller are disabled until this indicator goes off.

㉗ Prohibited indicator (PROHIBITED)

Blinks when an operator attempts to control a monitor (or camera) that is already used by a higher-priority operator or the operator has done the prohibited operation.

㉘ Joystick

Use this joystick to manually operate cameras, camera site accessories and a recorder, or to move the cursor in SETUP MENU on the active monitor screen.

UP: Up

DOWN: Down

L: Left, rewind*, backward field advance*

R: Right, fast-forward*, forward field advance*

*Available after pressing the RECORDER button while connecting to a recorder.

㉙ Iris buttons (IRIS CLOSE/OPEN)

Close or open the lens iris of cameras equipped with the specified lens.

Press the CLOSE and OPEN buttons simultaneously. The lens iris is reset to the factory default setting.

③⑩ **Focus buttons (FOCUS NEAR/FAR)**

Adjust the lens focus of cameras equipped with the specified lens.

Press the NEAR and FAR buttons simultaneously. The lens focus is adjusted automatically, if the specified auto focus camera is equipped.

③⑪ **Zoom buttons (ZOOM WIDE/TELE)**

Press these buttons to zoom the lenses equipped with the specified cameras.

Press the WIDE and TELE buttons simultaneously during the recorder mode. The recording is started.

③⑫ **Call Preset button (CALL PRESET/PROGRAM PRESET)**

To call the selected camera's preset position, press this button in combination with the numeric buttons. (The specified cameras support this function.)

To program a preset position, press the corresponding numeric button(s), and then press this button while holding down the SHIFT button.

③⑬ **Auto Pan button (AUTO PAN/CAM FUNC)**

Activates the auto panning function of cameras equipped with this feature.

To execute camera functions, press this button in combination with the numeric buttons. (The specified cameras support this function.)

③⑭ **Clear button (CLEAR/LOG OUT)**

Use this button to clear numeric input on the LED display, or exit from the ALARM HISTORY table (p. 101), the VIDEO LOSS HISTORY table (p. 101), or the SYSTEM STATUS table (p. 100).

To logout of the system, press this button while holding down the SHIFT button.

③⑮ **Camera (Set) button [CAM (SET)/WIPER]**

CAM: To select a camera, press the corresponding numeric button, followed by this button.

SET: To enter numeric input, such as operator ID and password, press this button in combination with the numeric buttons.

Also use this button to execute the currently highlighted selection and go into a submenu of SETUP MENU.

WIPER: To turn on the housing wiper of the camera, press this button while holding down the SHIFT button.

③⑯ **Numeric buttons**

Press these buttons to enter numbers into the system such as the camera and monitor number, sequence number, preset position, etc.

- In combination with the OSD button, parameter selection in OSD (On-screen Display) operation of the monitor status or research in a history table become available.
- In combination with the SHIFT button, AUX and Defroster are available.

- In the recorder mode, electronic zooming and multi-screen sequence, etc. are available when pressed in combination with the SHIFT button.

③⑰ **Monitor (Escape) button [MON (ESC)/MON LOCK]**

MON: Press this button to select a monitor.

To select a monitor, press the corresponding numeric buttons, followed by the MON (ESC) button.

ESC: Press this button to escape from the currently highlighted selection and return to the previous page of SETUP MENU.

MON LOCK: To prevent other operators from controlling the monitor, press this button while holding down the SHIFT button. To release the lock, press this button while holding down the SHIFT button again. (Refer to p. 90.)

③⑱ **Alarm Reset button (RESET/ALL RESET)**

RESET: To reset an alarm activated in the currently active monitor, press this RESET button.

ALL RESET: To cancel all activated alarms at a time, press this button while holding down the SHIFT button.

③⑲ **Alarm Acknowledge button (ACK/SUSPEND)**

ACK: Acknowledges an activated alarm.

To select the alarm monitor, press the ALARM button.

To select the desired alarm action number, press the numeric buttons, then press this ACK button. "ACK" will appear on the monitor.

To reset the alarm, press the RESET button after acknowledging the alarm. "ACK" will go out.

SUSPEND: To suspend an activated alarm, press this button while holding down the SHIFT button. "ALM SUSPENDED" will appear on the monitor. To cancel the suspension, press this button while holding down the SHIFT button again.

④⑩ **Function 1 button (F1/CAM SETUP)**

Press this button while holding down the SHIFT button to open the camera's SETUP MENU on the active monitor.

The function as the F1 button is reserved for future use.

④⑪ **Tour Sequence button (TOUR SEQ)**

Press this button, in combination with the numeric buttons, to run a tour sequence on the active monitor.

④⑫ **Group Sequence button (GROUP SEQ)**

Press this button to select a group sequence.

To select a group, press the corresponding numeric buttons, followed by the GROUP SEQ button.

④⑬ **Function 2 button (F2/INDEX)**

Displays date and time entry form during the recorder mode.

44 Next button (NEXT)

Moves a tour sequence one step forward from the step previously paused on the active monitor.

Also selects a camera. If the active monitor is in the spot mode, press NEXT while holding down the CAM (SET) button, to replace the currently selected camera with the next higher-numbered camera.

During the recorder mode, this button moves the playback image one step forward.

45 Previous button (PREV)

Moves a tour sequence one step backward from the step previously paused on the active monitor.

Also selects a camera. If the active monitor is in spot mode, press PREV while holding down the CAM (SET) button, to replace the currently selected camera with the next lower-numbered camera.

During the recorder mode, this button moves the playback image one step forward.

46 Recorder button (RECORDER)

To enter the recorder mode, press this button. (Refer to p. 116.)

Note: Only one operator can enter the recorder mode at one time.

47 Pause button (PAUSE)

Pauses a tour sequence, and the playback of the recorded images* that is being run on the active monitor.

Also restarts the sequence from the next step forward, or the playback of the recorded images*.

48 Play button (PLAY)

Starts the playback of the recorded images*.

49 Stop button (STOP)

Ends a tour sequence, or stops the playback of the recorded images* that is being run on the active monitor.

50 Shift button (SHIFT)

To activate the alternate function of each button, press this button, in combination with buttons associated with special functions.

51 On-screen Display button (OSD)

In combination with the numeric buttons, this button toggles the currently selected display items on the active monitor.

- 1: Clock display (T&D)
- 2: Camera title display (CAM ID)
- 3: Event display (EVENT)
- 4: Monitor status display (MON STATUS)
- 5: All displays (ALL)
- 7: ALARM HISTORY table (ALM H)
- 8: VIDEO LOSS STATUS table (VLD H)
- 9: SYSTEM STATUS table (SYS S)

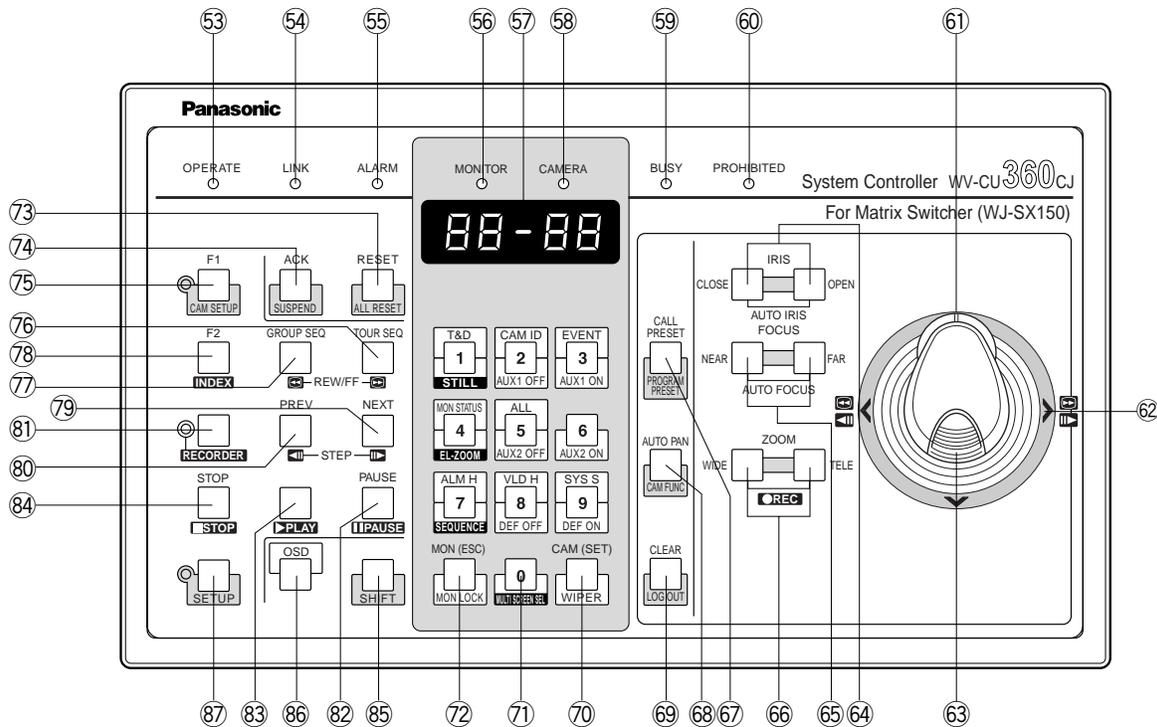
52 Setup button (SETUP)

To display the unit's SETUP MENU, press this button while holding down the SHIFT button.

* The playback of the recorded images is possible when a recorder is connected.

■ WV-CU360CJ System Controller (TERMINAL MODE)

A template, on which "For Matrix Switcher (WJ-SX150)" is written, is provided with System Controller WV-CU360CJ. When using the template, place it on the surface of the controller.



53 Operation indicator (OPERATE)

Lights up when the controller's power is turned on.

54 Link indicator (LINK)

Lights up when communication is established with the matrix switcher.

55 Alarm indicator (ALARM)

Lights up when an alarm condition exists.

56 Monitor indicator (MONITOR)

Lights up when the monitor number appears on the LED display.

57 LED Display

Displays the monitor number, camera number, numeric entry and error status, etc.

58 Camera indicator (CAMERA)

Lights up when the camera number appears on the LED display.

59 Busy indicator (BUSY)

Lights up when the higher-priority operator selects the camera or monitor you are currently operating. Operations from the system controller are disabled until this indicator goes off.

60 Prohibited indicator (PROHIBITED)

Blinks when an operator attempts to control a monitor (or camera) that is already used by a higher-priority operator or the operator has done the prohibited operation.

61 Zoom wheel controller

This control is used for zooming cameras equipped with the specific lens. Moving the control to the right will zoom in the image. Moving the control to the left will zoom out the image.

62 Joystick

Use this joystick to manually operate cameras, camera site accessories and a recorder, or to move the cursor in SETUP MENU on the active monitor screen.

- ▲: Up
- ▼: Down
- >: Left, rewind*, backward field advance*
- <: Right, fast-forward*, forward field advance*

*Available after pressing the RECORDER button while connecting to a recorder.

63 Top button

Pressing this button will automatically set the lens focus of a specified camera.

64 Iris buttons (IRIS CLOSE/OPEN)

Close or open the lens iris of cameras equipped with the specified lens.

Press the CLOSE and OPEN buttons simultaneously. The lens iris is reset to the factory default setting.

65 Focus buttons (FOCUS NEAR/FAR)

Adjust the lens focus of cameras equipped with the specified lens.

Press the NEAR and FAR buttons simultaneously. The lens focus is adjusted automatically, if the specified auto focus camera is equipped.

66 Zoom buttons (ZOOM WIDE/TELE)

Press these buttons to zoom the lenses equipped with the specified cameras.

Press the WIDE and TELE buttons simultaneously during the recorder mode. The recording is started.

67 Call Preset button (CALL PRESET/PROGRAM PRESET)

To call the selected camera's preset position, press this button in combination with the numeric buttons. (The specified cameras support this function.)

To program a preset position, press the corresponding numeric button(s), and then press this button while holding down the SHIFT button.

68 Auto Pan button (AUTO PAN/CAM FUNC)

Activates the auto panning function of cameras equipped with this feature.

To execute camera functions, press this button in combination with the numeric buttons. (The specified cameras support this function.)

69 Clear button (CLEAR/LOG OUT)

Use this button to clear numeric input on the LED display, or exit from the ALARM HISTORY table, the VIDEO LOSS HISTORY table, or the SYSTEM STATUS table.

To logout of the system, press this button while holding down the SHIFT button.

70 Camera (Set) button [CAM (SET)/WIPER]

CAM: To select a camera, press the corresponding numeric button, followed by this button.

SET: To enter numeric input, such as operator ID and password, press this button in combination with the numeric buttons.

Also use this button to execute the currently highlighted selection and go into a submenu of SETUP MENU.

WIPER: To turn on the housing wiper of the camera, press this button while holding down the SHIFT button.

71 Numeric buttons

Press these buttons to enter numbers into the system such as the camera and monitor number, sequence number, preset position, etc.

- In combination with the OSD button, parameter selection in OSD (On-screen Display) operation of the monitor status or research in a history table become available.
- In combination with the SHIFT button, AUX and Defroster are available.
- In combination with the SHIFT button, electronic zooming and multiscreen sequence, etc. are available.

72 Monitor (Escape) button [MON (ESC)/MON LOCK]

MON: Press this button to select a monitor.

To select a monitor, press the corresponding numeric buttons, followed by the MON (ESC) button.

ESC: Press this button to escape from the currently highlighted selection and return to the previous page of SETUP MENU.

MON LOCK: To prevent other operators from controlling the monitor, press this button while holding down the SHIFT button. To release the lock, press this button while holding down the SHIFT button again.

73 Alarm Reset button (RESET/ALL RESET)

RESET: To reset an alarm activated in the currently active monitor, press this RESET button.

ALL RESET: To cancel all activated alarms at a time, press this button while holding down the SHIFT button.

74 Alarm Acknowledge button (ACK/SUSPEND)

ACK: Acknowledges an activated alarm.

To select the alarm monitor, press the ALARM button.

To select the desired alarm action number, press the numeric buttons, then press this ACK button. "ACK" will appear on the monitor.

To reset the alarm, press the RESET button after acknowledging the alarm. "ACK" will go out.

SUSPEND: To suspend an activated alarm, press this button while holding down the SHIFT button. "ALM SUSPENDED" will appear on the monitor. To cancel the suspension, press this button while holding down the SHIFT button again.

75 Function 1 button (F1/CAM SETUP)

Press this button while holding down the SHIFT button to open the camera's SETUP MENU on the active monitor.

The function as the F1 button is reserved for future use.

76 Tour Sequence button (TOUR SEQ)

Press this button, in combination with the numeric buttons, to run a tour sequence on the active monitor.

77 Group Sequence button (GROUP SEQ)

Press this button to select a group sequence.

To select a group, press the corresponding numeric buttons, followed by the GROUP SEQ button.

78 Function 2 button (F2/INDEX)

Displays date and time entry form during the recorder mode.

79 Next button (NEXT)

Moves a tour sequence one step forward from the step previously paused on the active monitor.

Also selects a camera. If the active monitor is in the spot mode, press NEXT while holding down the CAM (SET) button, to replace the currently selected camera with the next higher-numbered camera.

During the recorder mode, this button moves the playback image one step forward.

80 Previous button (PREV)

Moves a tour sequence one step backward from the step previously paused on the active monitor.

Also selects a camera. If the active monitor is in spot mode, press PREV while holding down the CAM (SET) button, to replace the currently selected camera with the next lower-numbered camera.

During the recorder mode, this button moves the playback image one step forward.

81 Recorder button (RECORDER)

To enter the recorder mode, press this button.

Note: Only one operator can enter the recorder mode at one time.

82 Pause button (PAUSE)

Pauses a tour sequence, and the playback of the recorded images* that is being run on the active monitor.

Also restarts the sequence from the next step forward, or the playback of the recorded images*.

83 Play button (PLAY)

Starts the playback of the recorded images*.

84 Stop button (STOP)

Ends a tour sequence, or stops the playback of the recorded images* that is being run on the active monitor.

85 Shift button (SHIFT)

To activate the alternate function of each button, press this button, in combination with buttons associated with special functions.

86 On-screen Display button (OSD)

In combination with the numeric buttons, this button toggles the currently selected display items on the active monitor.

1: Clock display (T&D)

2: Camera title display (CAM ID)

3: Event display (EVENT)

4: Monitor status display (MON STATUS)

5: All displays (ALL)

7: ALARM HISTORY table (ALM H)

8: VIDEO LOSS STATUS table (VLD H)

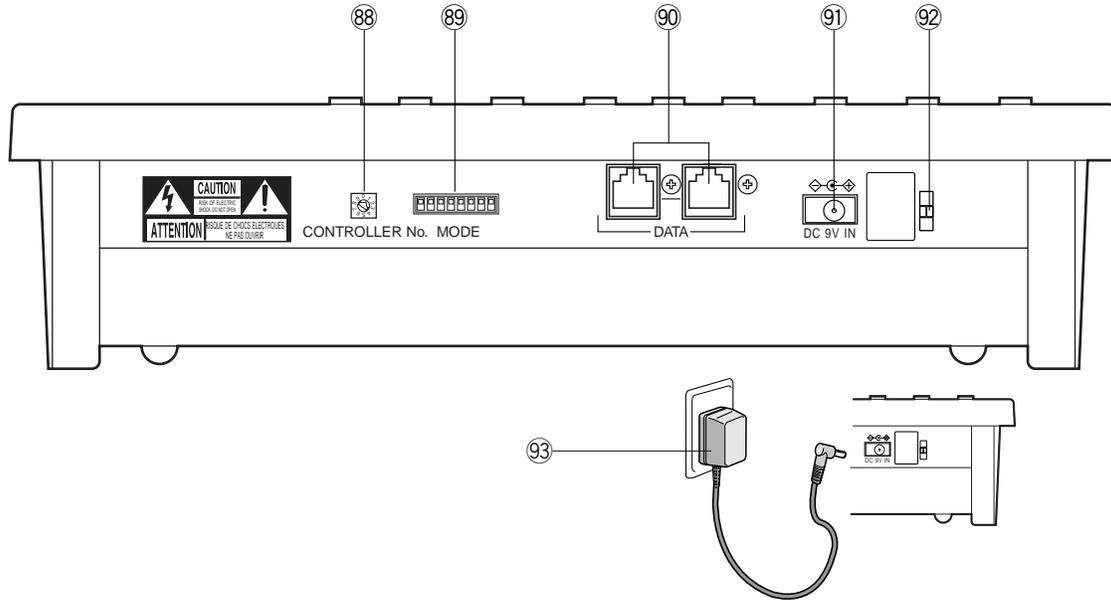
9: SYSTEM STATUS table (SYS S)

87 Setup button (SETUP)

To display the unit's SETUP MENU, press this button while holding down the SHIFT button.

* The playback of the recorded images is possible when a recorder is connected.

● Rear View



⑧⑧ **Controller Number switch (CONTROLLER No.)**

Selects a number for the system controller for identification in a system. Normally, set the switch to number 1.

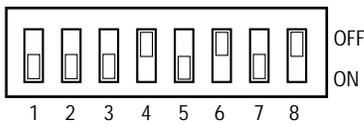


CONTROLLER No.

⑧⑨ **Mode Selection switches (MODE)**

The operation mode of the system controller is selected with these switches.

When you use a terminal-mode system controller, set the switches to the positions shown in the figure.



MODE

Note: When you use a PS·Data system controller, refer to the system controller's operating instructions.

④⑨⑩ **Data ports (DATA)**

Exchange the control data with the matrix switcher via RS-485 cable (supplied with the system controller).

⑨① **DC 9V Input jack (DC 9V IN)**

Use this jack to plug the AC adapter supplied with the system controller.

⑨② **Clamp**

Fastens the supplied AC adapter's power cord.

⑨③ **AC adapter**

Caution: Use only the supplied AC adapter to feed 9 V DC to the system controller.

Note: Disconnect the plug from the controller before setting the controller number switch or mode selection switch, and reconnect it when finished. The new settings will take effect when the power is turned on.

INSTALLATIONS AND SYSTEM CONNECTIONS

INSTALLATIONS

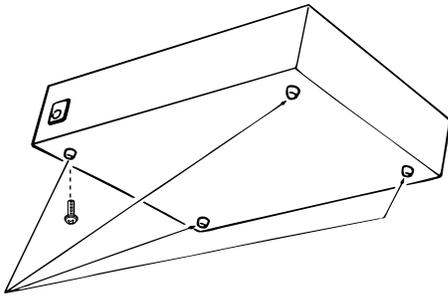
WARNING

The installations described in the figures should be made by qualified service personnel or system installers.

■ Mounting into the Rack

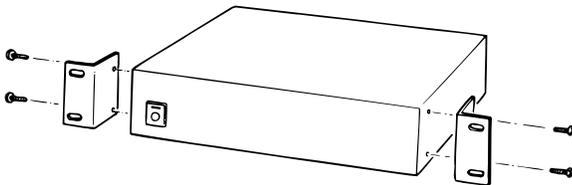
The matrix switcher can be mounted into the rack as described.

1. Remove the four rubber feet by unwinding the four screws on the bottom of the matrix switcher.

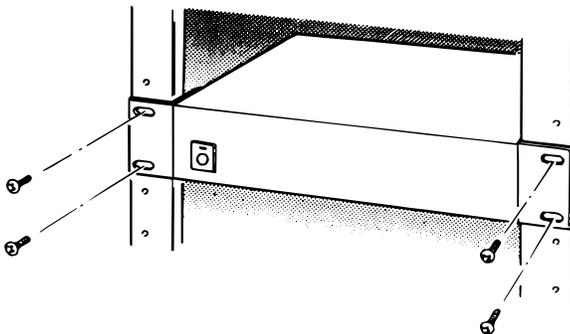


Remove 4 rubber feet

2. Place the rack mounting brackets on both sides of the matrix switcher and tighten with the four supplied screws (M4 X10).



3. Install the matrix switcher in the rack with the rack mounting brackets secured with four screws (procured locally).



Notes:

- An optional cooling fan attached inside the unit is subject to wear. It needs to be replaced periodically. Keep the temperature in the rack below 45 °C (113 °F) at any time.
- If the rack is subject to vibration, secure the rear of the appliance to the rack by using additional mounting brackets (procured locally).

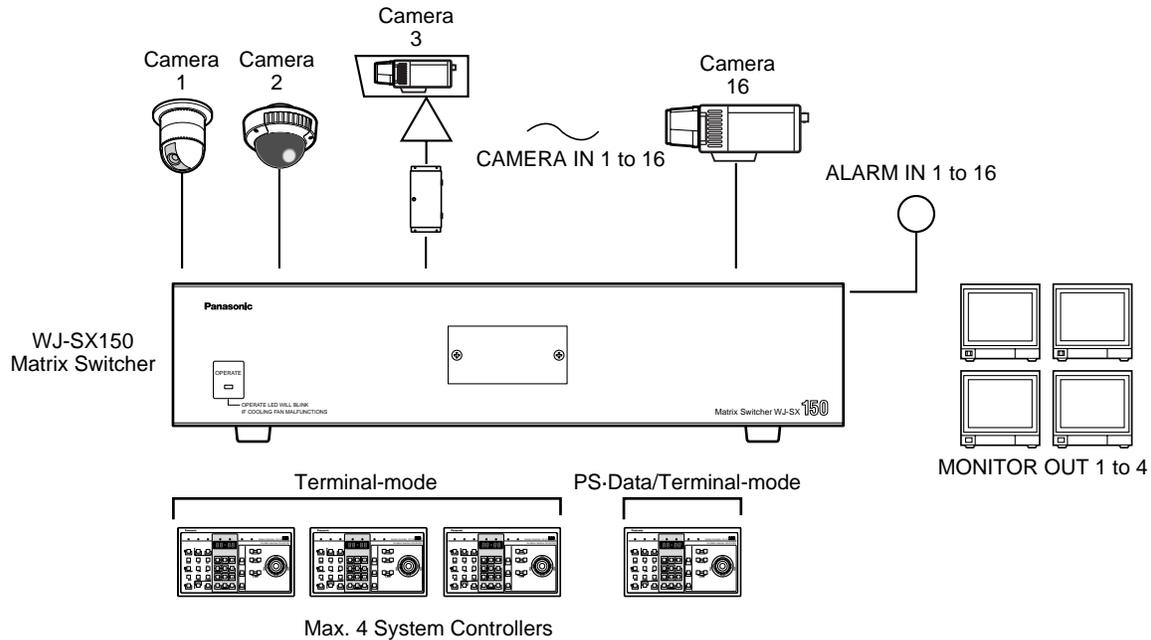
■ Installing the Multiplexer Board

To use WJ-HD100 Series or a time-lapse VCR as a recorder, you need to install a multiplexer board inside the matrix switcher. Refer to the multiplexer board's operating instructions for how to install.

SYSTEM CONNECTION EXAMPLES

Basic System Connection

This is an example of basic system connection.

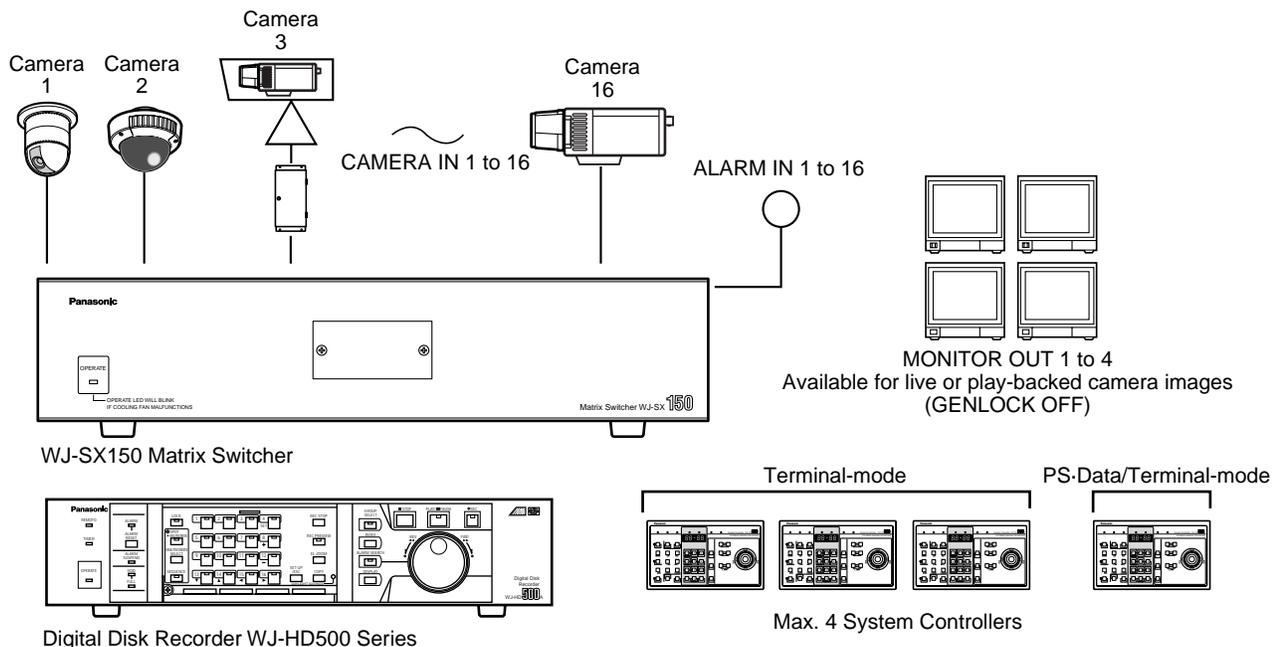


Note: Before connecting a terminal-mode system controller to the DATA 4 port, configure the system through SETUP MENU or WJ-SX150 Administrator Console.

System Expansion Connection

Connection with Digital Disk Recorder WJ-HD500 Series

When connecting the camera output connectors to Digital Disk Recorder WJ-HD500 Series, the digital disk recorder can record all the camera channels. More than one camera images can be displayed in multiscreen segments on the desired monitor.

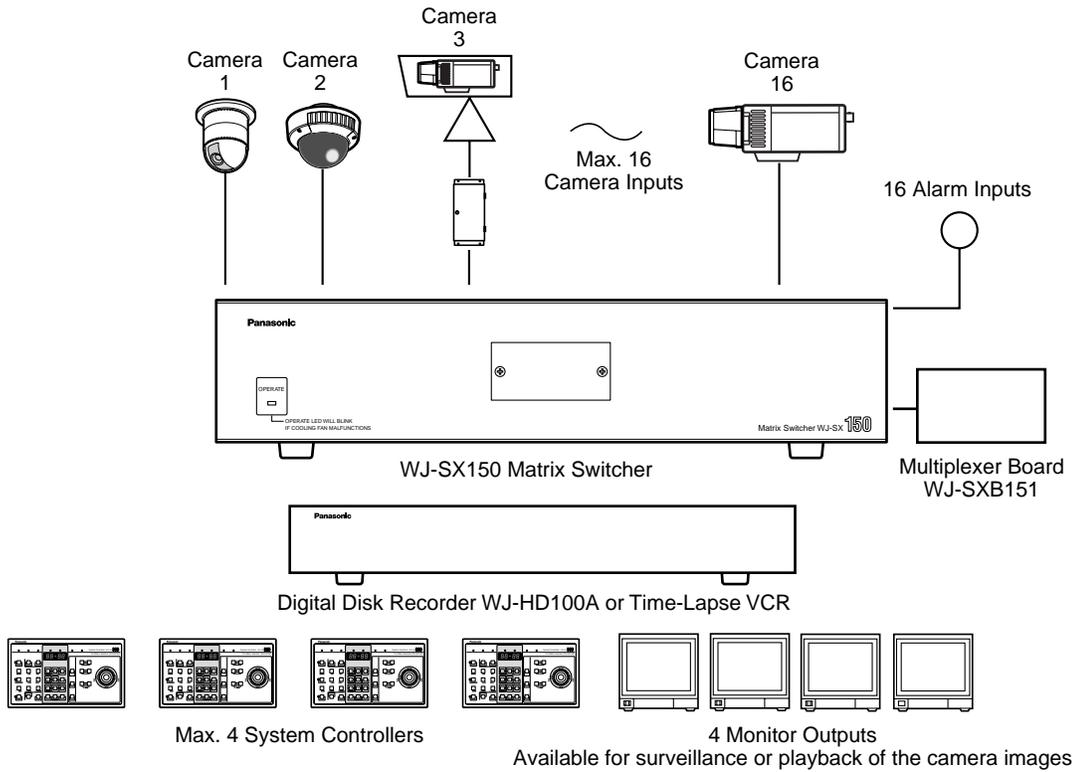


Notes:

- Before connecting a terminal-mode system controller to the DATA 4 port, configure the system through SETUP MENU or WJ-SX150 Administrator Console.
- If an optional network board is installed inside the recorder and you are to control it from LAN (local area network) or the Internet, refer to a service manual procurable in your area.

● Connection with Digital Disk Recorder WJ-HD100 Series or Time-lapse VCR

- With the multiplexer board, the recorded images of Camera 1 to 16 can be multiplexed to Digital Disk Recorder, WJ-HD100 Series or a time-lapse VCR.



To use WJ-HD100 Series or a time-lapse VCR as a recorder, you need to install a multiplexer board inside the matrix switcher.

CONNECTIONS

■ Connection with the Camera Sites

Connect the data-multiplex type cameras (or camera site equipment) to the CAMERA IN connectors 1 to 16 on the matrix switcher's rear panel.

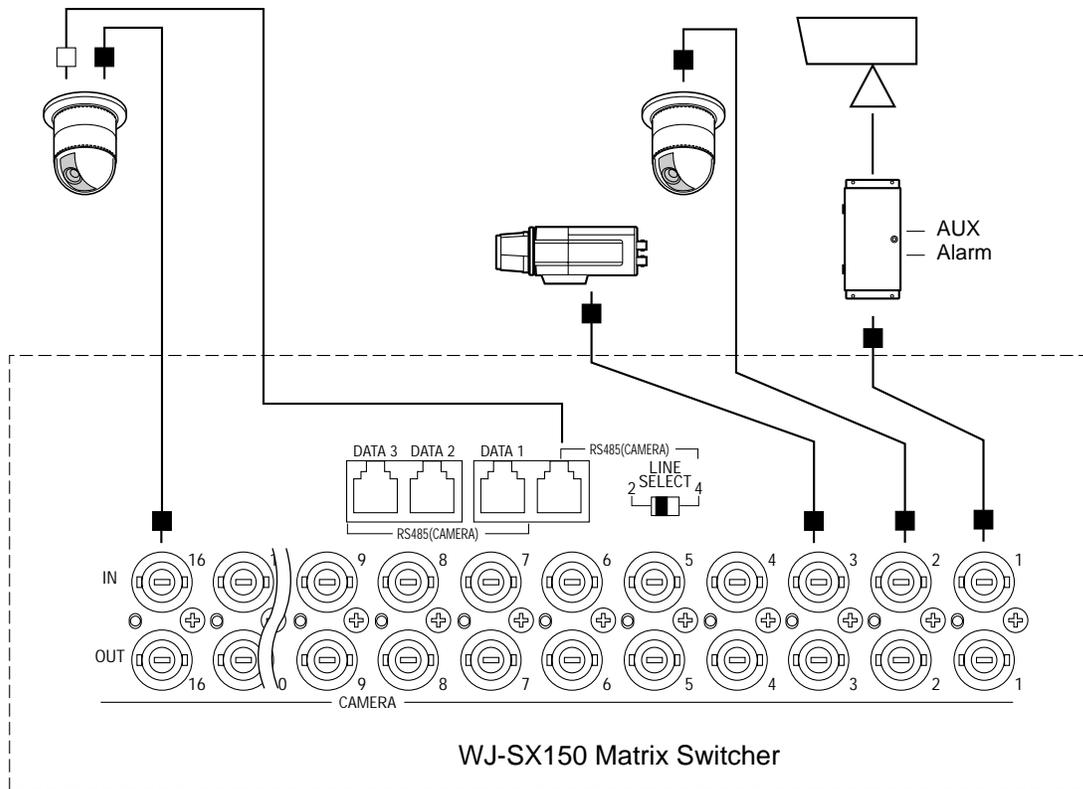
Notes:

- Make sure that the cable length is less than 900 m (3 000 ft) between the camera site and the unit when using RG-59/U, BELDEN 9259 or equivalent cables.
- If you use locally procuring cables, it is important to use only a data-grade cable, which is suitable for RS-485 communication (shielded 2-wire twisted cable).
- When the cable length is extended, cable compensation is available. (Refer to pp. 60 and 78.)

Connect non-multiplex type cameras to the CAMERA IN connectors 1 to 16. For cameras equipped with RS-485 communication facilities, connect the RS-485 cable as follows.

Check the camera addresses when using RS-485 cameras. Operations from the system controller will be invalid if the camera addresses are set improperly.

- Use addresses from 1 to 16 for individual cameras.
- Do not set the same address for more than one camera in an RS-485 chain.
- Before connecting the RS-485 camera(s) to DATA 1, 2 and/or 3, configure the system through WJ-SX150 Administrator Console.



■ Connections for RS-485 Type Camera

There are two options to connect the camera with the matrix switcher, depending on the distance between them.

One is "Home Run" wiring and the other is daisy chain wiring. "Home Run" wiring has the transmission stability with less transmission loss, and daisy chain wiring has connection flexibility with less data ports occupied. For data-multiplex type cameras, 900 meters (3 000 ft) is the limit to use coaxial cable such as RG-59/U, BELDEN 9259 or equivalent.

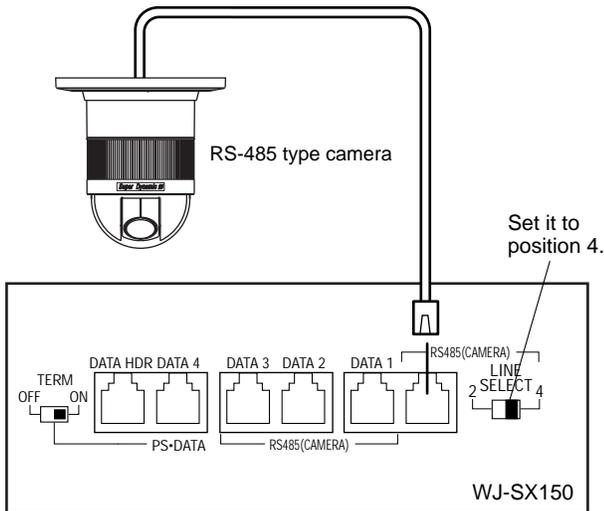
Note: If more distance is required, use cameras and matrix switcher with RS-485 communication feature. Remote control becomes possible.

● "Home Run" Wiring

1. Connect with a RS-485 camera in "Home Run" wiring as shown in the figure.
2. Set the LINE SELECT switch to 2 or 4.

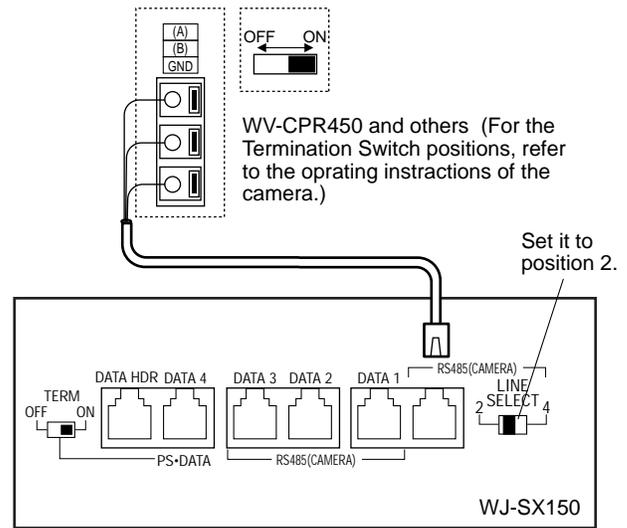
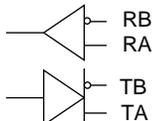
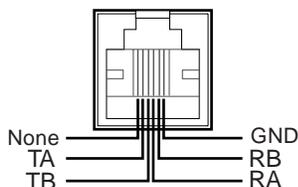
Notes:

- Before connecting RS-485 cameras to DATA1 to 3, data port setting through WJ-SX150 Administrator Console is necessary. (Refer to p. 81 Data Port.)
- Recommended for RS-485 communication is AWG#22 or thicker one. The cable should be shielded, two-wire, twisted pair, and with low impedance.
- Set the LINE SELECT switch to 4 when programming preset position of WV-CSR600/650 Series camera is connected to the unit.



RS485 Port

Matrix switcher's rear panel



● Daisy Chain Wiring

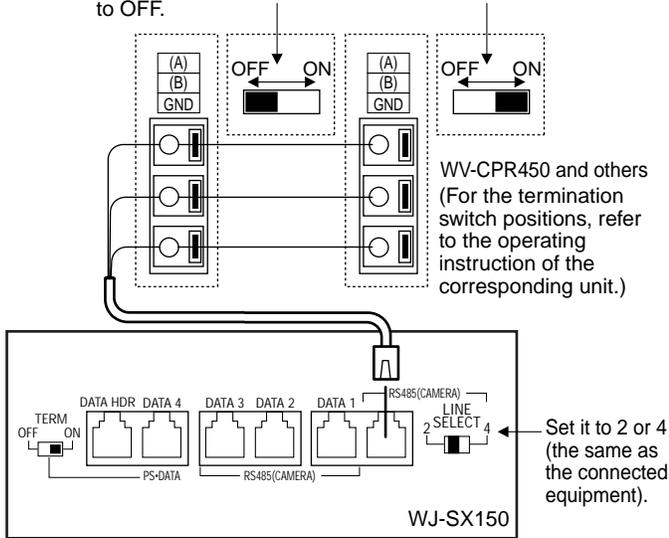
1. Draw up a plan for connection between the cameras and the input channels of the matrix switcher, and the assignment of unit addresses to cameras.
2. Set the LINE SELECT switch to 2. Also, set the connected device's switch if required.
3. Connect one end of the cable to RS-485 (CAMERA), and the other end to the first camera in the chain, as shown in the figure. Repeat this procedure for all cameras.
4. Set the termination switches of the cameras at the chain ends to ON. Camera's termination switches must be set to OFF except the ones at the chain ends.

Notes:

- Set the same number for the camera's unit address as and CAMERA IN.
- Check the settings of the camera addresses when using RS-485 cameras. Operations from the system controller will be invalid if the camera addresses are set improperly.
- Do not use addresses other than 1 to 16 for individual cameras (More than 17 cameras are not allowed).
- Do not set the same address for more than one camera in an RS-485 chain.
- Termination is the key to data transmission and reception in the chain. While the other switches are set to OFF, only the switches at the chain ends must be set to ON.
- The termination of this unit's RS-485 camera port is always set to ON. Connect the unit at the end of the daisy chain.
- The more equipment there is in the chain, the slower the response may be.

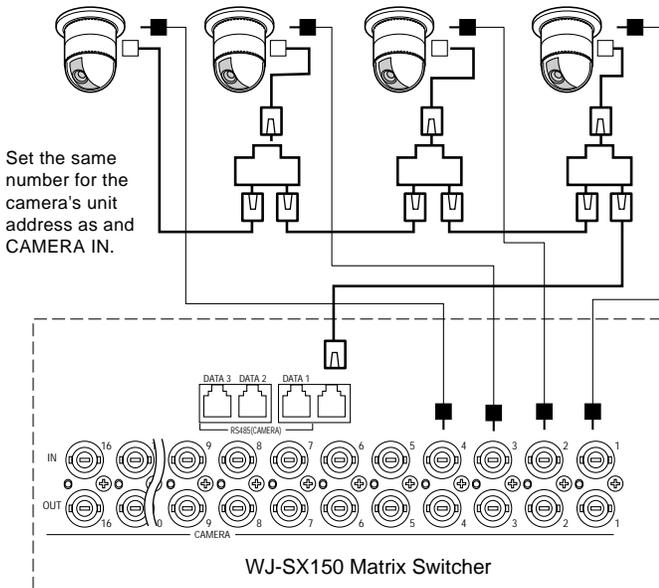
The switch on a daisy-chain-connected unit other than the extremities must be set to OFF.

The switch on the end unit should be set to ON.



Auto termination works inside the matrix switcher.

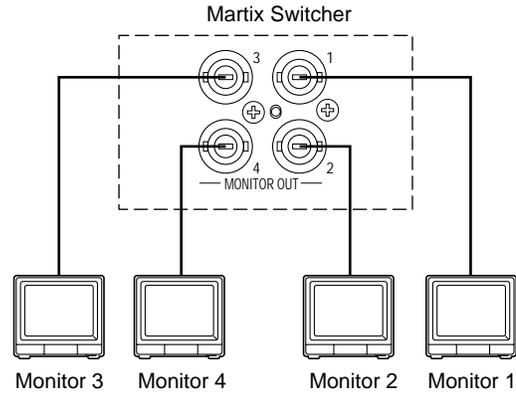
Unit address 4 Unit address 3 Unit address 2 Unit address 1



■ Connection with the Monitors

Connect the monitors to the MONITOR OUT connectors at the unit's rear panel with the coaxial cable.

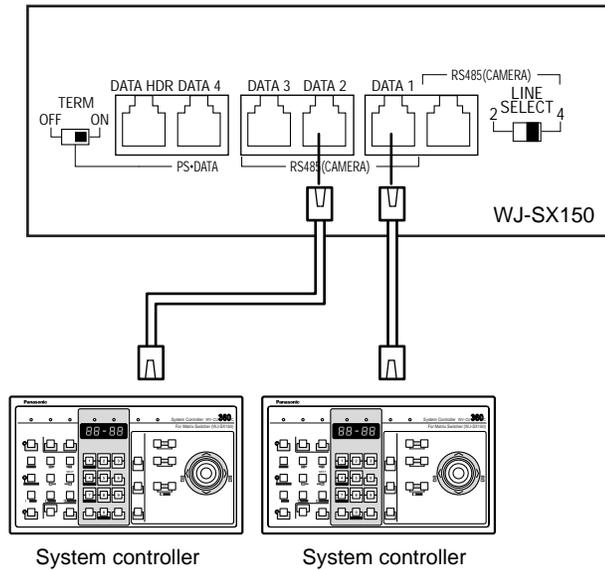
The connectors MONITOR OUT 1 to 4 are associated to



Monitor 1 to 4. When you control the monitors from a PS-Data controller, the connectors MONITOR OUT are associated to Unit 1 to 4.

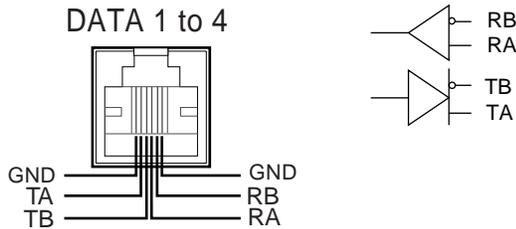
■ Connection with the System Controllers

Connect the system controller to the DATA 1 to 4 port at the unit's rear panel with the modular cable.



DATA1 to DATA4 Port

Matrix switcher's rear panel

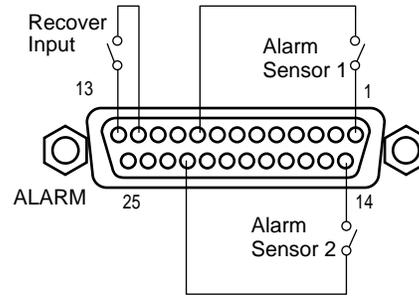


Notes:

- Up to four system controllers are connectable.
- Connect them in home run.
- In the factory default setting, the DATA 4 port is a PS-Data terminal. To connect a terminal-mode system controller to this port, you need to change the data port setting through SETUP MENU or WJ-SX150 Administrator Console. (Refer to pp. 60 or 81.)

■ Connection with the Alarm Sensors

Connect the sensor switches to the unit's alarm port, as shown in the example.



Pin No.	Designation	Pin No.	Designation
1	Alarm Input 1	14	Alarm Input 2
2	Alarm Input 3	15	Alarm Input 4
3	Alarm Input 5	16	Alarm Input 6
4	Alarm Input 7	17	Alarm Input 8
5	Alarm Input 9	18	Alarm Input 10
6	Alarm Input 11	19	Alarm Input 12
7	Alarm Input 13	20	Alarm Input 14
8	Alarm Input 15	21	Alarm Input 16
9	GND	22	GND
10	Alarm Output 1	23	Alarm Output 2
11	Alarm Output 3	24	Alarm Output 4
12	GND	25	GND
13	Recover Input		

Notes:

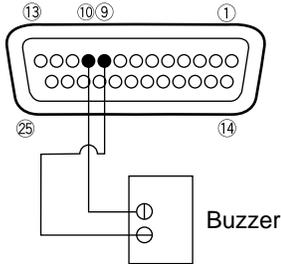
- Alarm inputs that are simultaneous or with very short intervals will be ignored. Allow for at least 100 ms interval from one alarm input to the next.
- Confirm the alarm sensor type (N.O. or N.C.) and configure the system through SETUP MENU (OSD) or WJ-SX150 Administrator Console. The factory setting is N.O.
N.O.: Normally Open alarm contact
N.C.: Normally Closed alarm contact
- The alarm pin assigned to the time adjust (TIME) terminal cannot be used as an alarm input terminal.

■ Connection with the Alarm Output

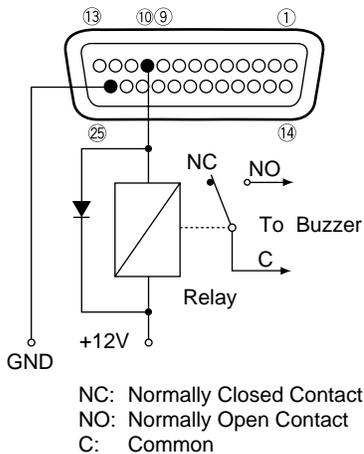
Pins #10, 11, 23 and 24 (open collector) turns to 0 V while the alarm is activated. These terminals can drive external warning devices such as a buzzer or lamp of up to 100 mA, 16 V DC. If the rating exceeds 100 mA, 16 V DC use a relay as shown in Example 2.

Alarm signals are output from the terminals until the reset.

Example 1: Direct drive connection



Example 2: Connection of devices exceeding drive



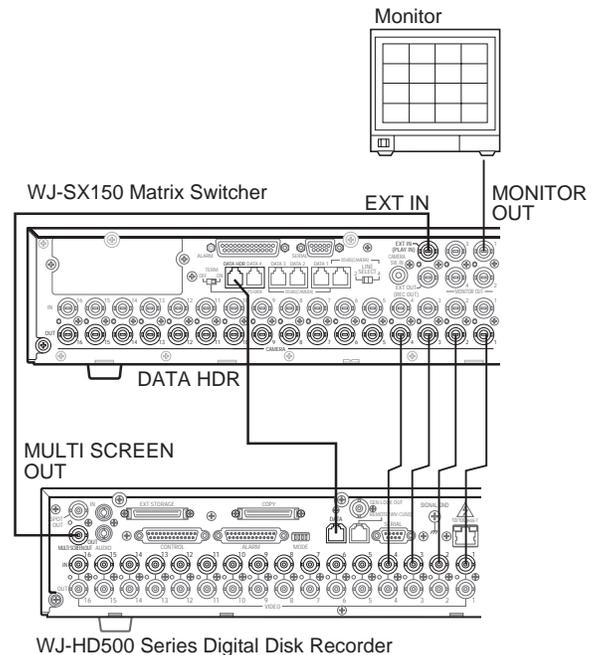
■ Connection with Digital Disk Recorder WJ-HD500 Series

Note: Refer to a service manual procurable in your area, for details on the connection with a recorder (after the network board installation) to operate via LAN or the Internet.

● To Confirm the Images from a Recorder Connected to the Unit

The following is the description of the connection between a recorder and this unit to confirm the images from the recorder.

1. Set the unit address of the recorder to 1. Then, confirm that the recorder's CAMERA GENLOCK is set to OFF in its SETUP MENU. (Refer to the recorder's operating instructions.)
2. Connect the unit's CAM OUT 1 to 16 connectors to the recorder's VIDEO IN 1 to 16 connectors with a coaxial cable.
3. Connect the unit's EXT IN connector to the recorder's MULTI SCREEN OUT connector with a coaxial cable.
4. Connect the unit's DATA HDR connector to the recorder's DATA port with a modular cable. (The control data and alarm signal will be output from the unit to the recorder.)
5. After the connection, set the unit's EXT IN to GENLOCK ON through SETUP MENU or WJ-SX150 Administrator Console (Refer to pp. 60 or 66).



Notes:

- You cannot record the camera images in maximum recording rate through this connection. Refer to the next connection example in this page.
- The recorder will not operate if its unit address is set to other than 1.

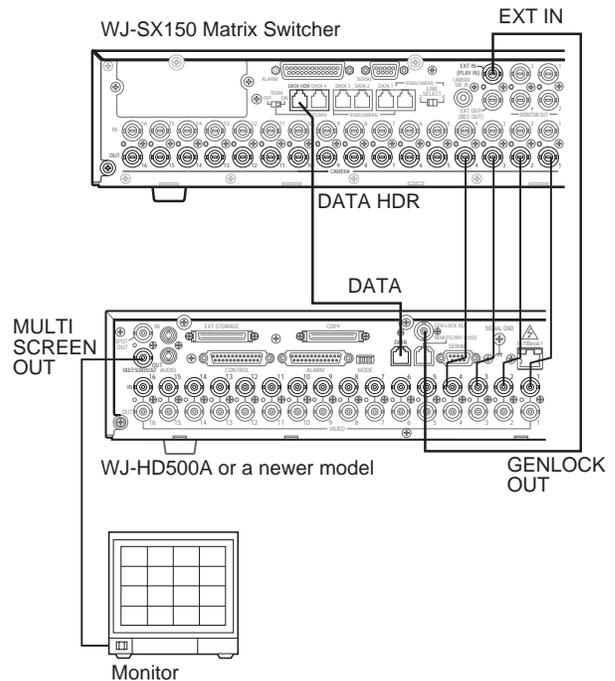
● To Record the Camera Images in Maximum Recording Rate

The following is the description of the connection between a recorder and this unit for the maximum-rate recording.

1. Set the unit address of the recorder to 1. Then, set the recorder's CAMERA GENLOCK to ON in its SETUP MENU. (Refer to the recorder's operating instructions.)
2. Connect the unit's CAM OUT 1 to 16 connectors to the recorder's VIDEO IN 1 to 16 connectors with a coaxial cable.
3. Connect the unit's EXT IN connector to the recorder's GENLOCK OUT connector with a coaxial cable.
4. Connect the unit's DATA HDR connector to the recorder's DATA port with a modular cable. (The control data and alarm signal will be output from the unit to the recorder.)
5. After the connection, set the unit's EXT IN to GENLOCK ON through SETUP MENU or WJ-SX150 Administrator Console (Refer to pp. 60 or 66).

Notes:

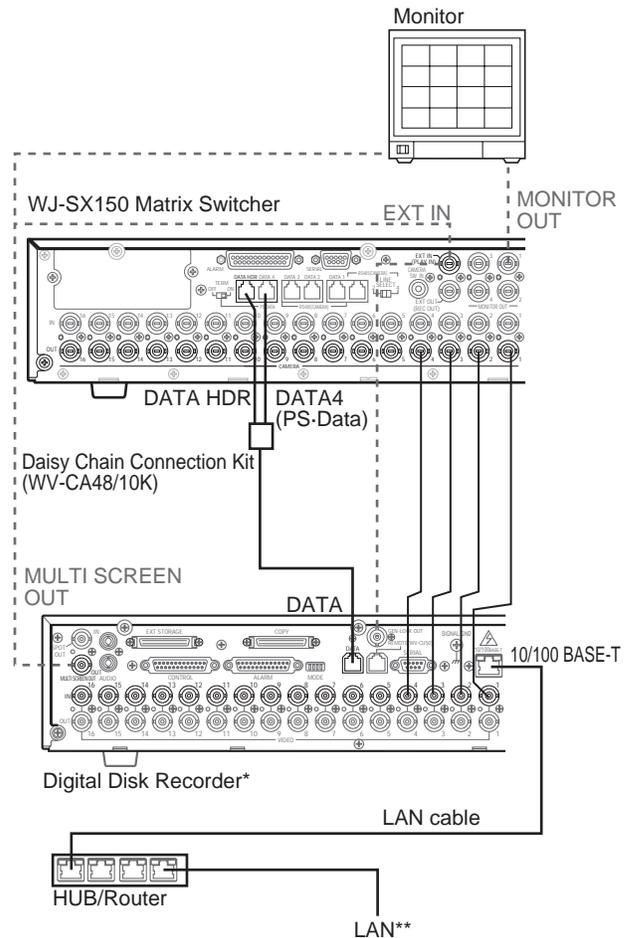
- You need WJ-HD500A or a newer model for the maximum-rate recording.
- The playback, multiscreen output or live images from the recorder are not displayed on Monitor 1 to 4. To confirm the images, you need to connect another monitor with the recorder.
- The recorder will not operate if its unit address is set to other than 1.
- Make sure the DATA HDR port's unit address is set to 1 through WJ-SX150 Administrator Console. (Refer to p. 66.) If another number is selected, you cannot control the recorder.



● To Control a Recorder via the Network

The following is the description of the connection between a recorder and this unit to control the recorder via the network.

1. Set the recorder's unit address to a number 5 or larger . (Refer to the recorder's operating instructions.)
2. Connect the unit's CAM OUT 1 to 16 connectors to the recorder's VIDEO IN 1 to 16 connectors with a coaxial cable.
3. Connect the unit's DATA HDR and DATA4 connectors to the recorder's DATA port with a daisy chain connection cable kit (WV-CA48/10K). (The control data and alarm signal will be output from the unit to the recorder.)
4. Select the recorder's new unit address, which is set in step 1, for DATA HDR in the Data Port window. (Refer to p. 66.)
5. Through a browser, set the unit address of an optional network board (WJ-HDB502) to a number other than 1. (Refer to WJ-HDB502 Operating Instructions.)
6. Refer to p. 39, p. 41 and p. 42 for MONITOR OUT connection, MULTI SCREEN OUT connection, and EXT IN connection.



* WJ-HD500A or Newer Models with Network Board (WJ-HDB502)

** LAN : Local Area Network

Notes:

- You will need WJ-HD500A or a newer model, in which an optional network board (WJ-HDB502) is installed.
- Select the PS-Data protocol for the DATA 4 setting. (Refer to p. 61 DATA 4/PSD PORT SELECT or p. 81 Data Port.) If the terminal mode is selected, you cannot control the recorder.
- The recorder will not be operable if its unit address is set to 1.
- If the recorder's unit address in step 1 and the DATA HDR setting in step 4 are different, the recorder will not be operable.
- In these connections, you cannot use a PS-Data system controller.

■ Connection with Digital Disk Recorder WJ-HD100 Series

1. To record the camera images with Digital Disk Recorder WJ-HD100 Series, install an optional Multiplexer board in the matrix switcher.
2. Connect the matrix switcher's EXT OUT (REC OUT) to the digital disk recorder's VIDEO IN with a coaxial cable.
3. Connect the matrix switcher's EXT IN (PLAY IN) to the digital disk recorder's MONITOR OUT (PLAY) with a coaxial cable.
4. Connect the matrix switcher's DATA HDR to the digital disk recorder's DATA with a modular cable.
5. Connect the matrix switcher's CAMERA SW IN to the digital disk recorder's CAMERA SW OUT with an RCA-pin cable.
6. Select "HD100" for 610 RECORDER CONTROL in SETUP MENU. (Refer to p. 60.)
7. Conform the parameter of 740 PSD PORT SPEED to the setting of the recorder.

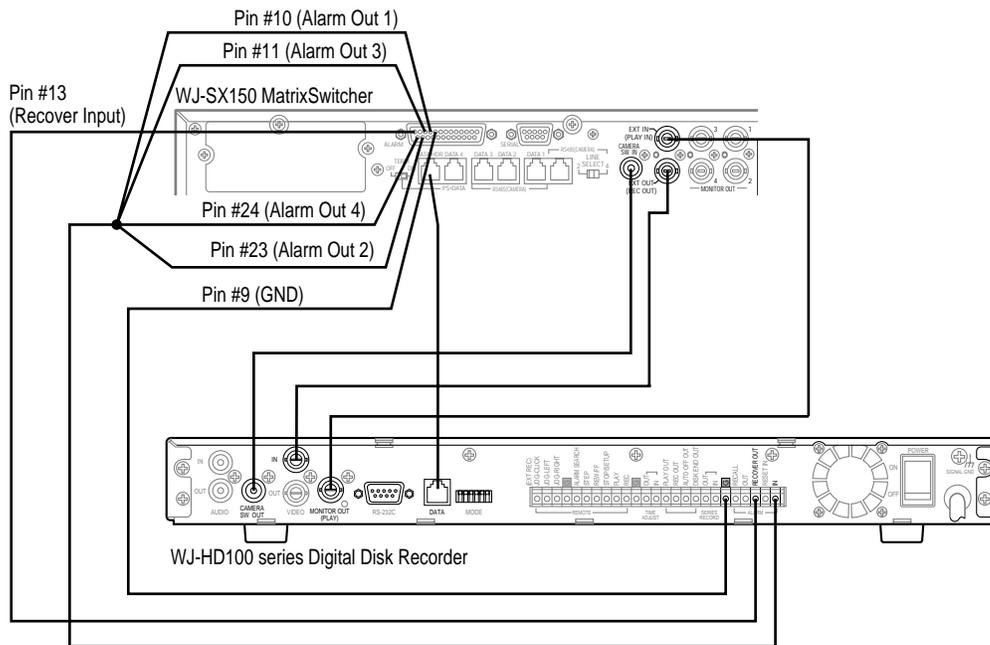
The following parameters are fixed.

Data bit: 8 bits

Parity check: None

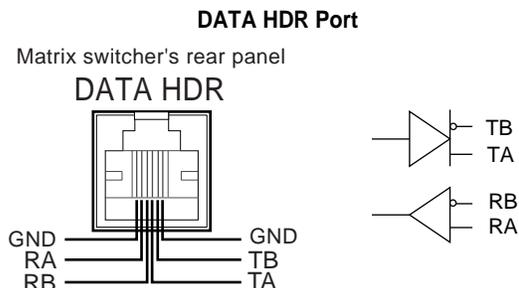
Stop bit: 1 bit

- 8 Conform the parameter of 620 RECORDER UNIT ADDRESS in SETUP MENU to the setting of the recorder. (Refer to the recorder's operating instructions for the unit address.)



Note: After the connection, configure the system through SETUP MENU and WJ-SX150 Administrator Console.

● DATA HDR Port



■ Connection with the Time-lapse VCR (Panasonic Models)

1. Configure the parameters of the multiplexer functions in the Multiplexer Mode (refer to p. 82) window of WJ-SX150 Administrator Console.

Note: When VCR is selected in 610 RECORDER CONTROL in SETUP MENU (refer to p. 60), parameter configuration in the Multiplexer Mode window is unavailable.

2. Select VCR for 610 RECORDER CONTROL in SETUP MENU. (Refer to p. 60.)
3. Conform the communication speed (COMM. SPEED) for 750 SERIAL PORT SPEED in SETUP MENU to that of the time-lapse VCR. (Refer to p.61.)

The following parameters are fixed.

Data bit: 7 bits

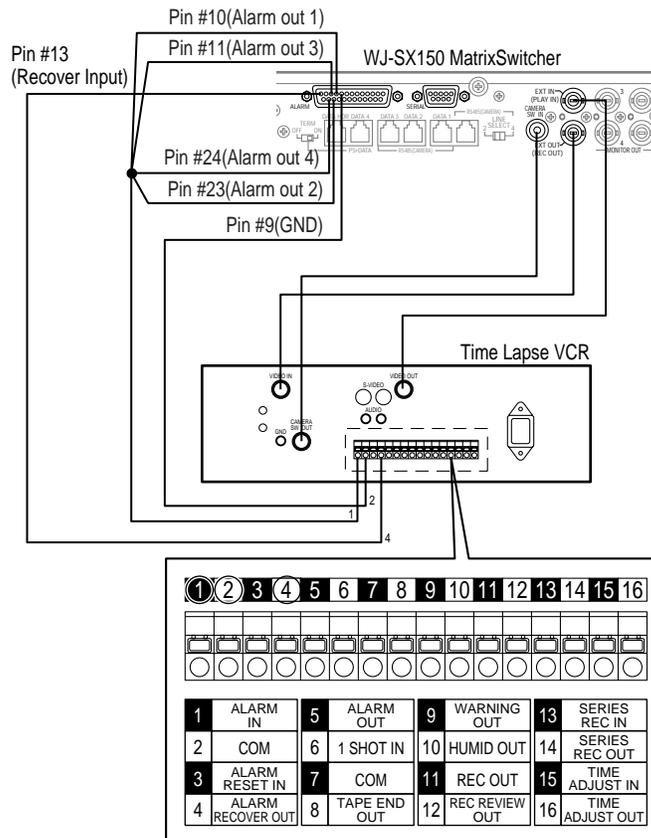
Parity check: ODD

Stop bit: 1 bit

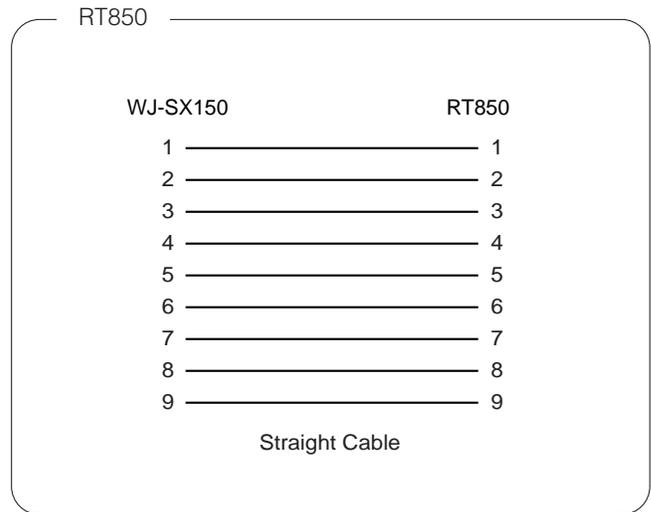
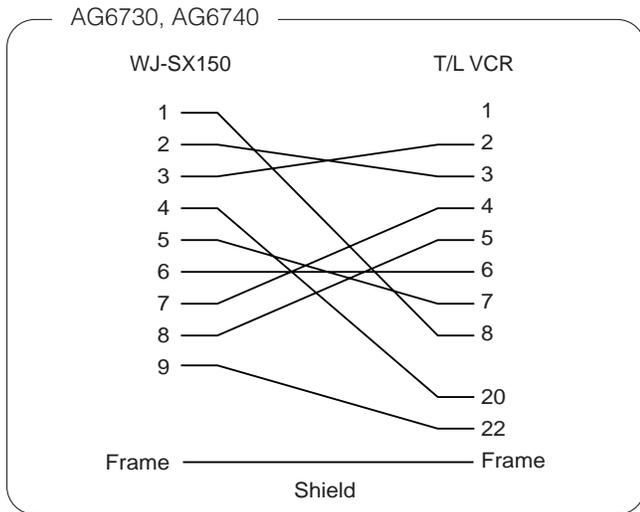
4. Connect the matrix switcher's EXT OUT (REC OUT) to the time-lapse VCR's VIDEO IN with the coaxial cable.
5. Connect the matrix switcher's EXT IN (PLAY IN) to the time-lapse VCR's VIDEO OUT with the coaxial cable.
6. Connect the matrix switcher's SERIAL to that of the time-lapse VCR with a 9-pin D-sub cable.
7. Connect the matrix switcher's CAMERA SW IN to the time-lapse VCR's CAMERA SW OUT with an RCA-pin cable.

Notes:

- Only Panasonic time-lapse VCRs which support RS-232C are usable. (Refer to Cable Specifications on the next page for details of cables.)
- Both of the time-lapse VCR and PC cannot be connected to the matrix switcher.
- When configuring the system through WJ-SX150 Administrator Console, pull out the time-lapse VCR's cable and connect the PC's cable to the serial port.
- To use the alarm recording function, connect the matrix switcher's all alarm output terminals (Alarm Output 1 to 4) to the time-lapse VCR's ALARM IN.
- Be sure to activate auto-recovery for the VCR's alarm reset function.



■ Cable Specifications

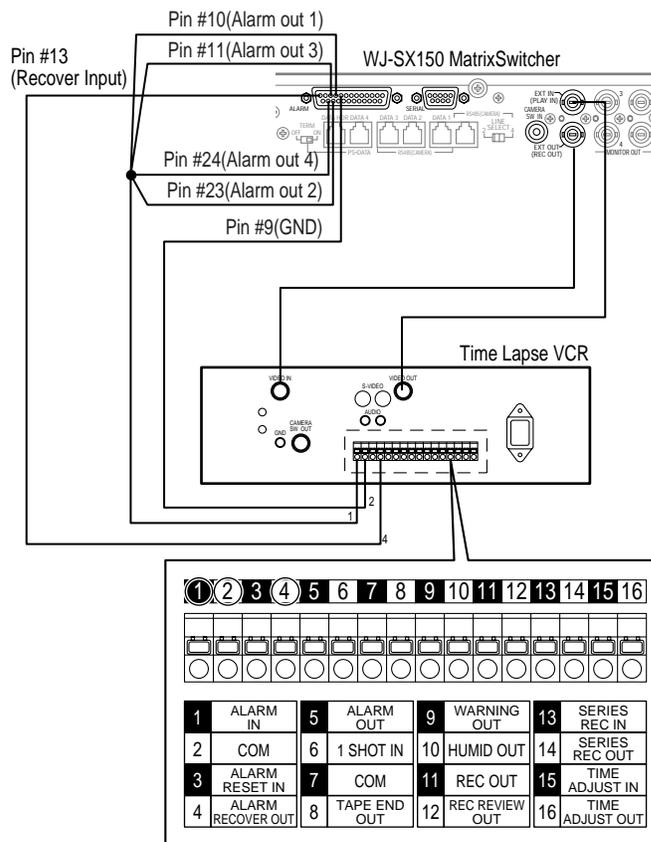


■ Connection with the Time-lapse VCR (Non-Panasonic Models)

1. To record the camera images through a time-lapse VCR, install an optional Multiplexer board in the matrix switcher.
2. Select OFF for 610 RECORDER CONTROL in SETUP MENU.
3. Connect the matrix switcher's EXT OUT (REC OUT) to the time-lapse VCR's video input connector with the coaxial cable.
4. Connect the matrix switcher's EXT IN (PLAY IN) to the time-lapse VCR's video output connector with the coaxial cable.

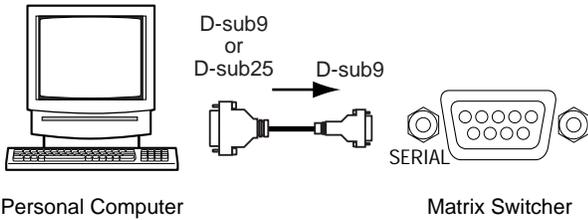
Notes:

- To use the alarm recording function, connect the matrix switcher's all alarm output terminals (Alarm Output 1 to 4) to the time-lapse VCR's ALARM IN.
- Refer to p. 45 "Connection with the Time-lapse VCR (Panasonic Models)" for the illustration.
- Be sure to set the VCR to automatically recover from alarm reset.



■ Connection with the PC

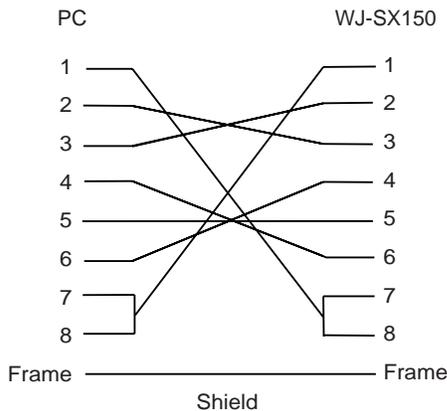
1. Conform the communication speed (SERIAL PORT SPEED) parameter in SETUP MENU to that of the PC.
2. Connect the matrix switcher's serial port to that of the PC with the 9-pin D-sub cable.



Notes:

- The following parameters are fixed.
 - Data bit:** 8 bits
 - Parity check:** none
 - Stop bit:** 1 bit
- Refer to Cable Specifications in this page for details on cables.

● Cable Specifications



■ Time Adjustment with an External Equipment

The specified external devices can output the time adjusting signal to the matrix switcher.

This signal can adjust the time by up to ± 30 seconds every hour.

To use this function, it is necessary to assign one of the alarm input terminals (pin # 1 to 16) to the time adjusting terminal.

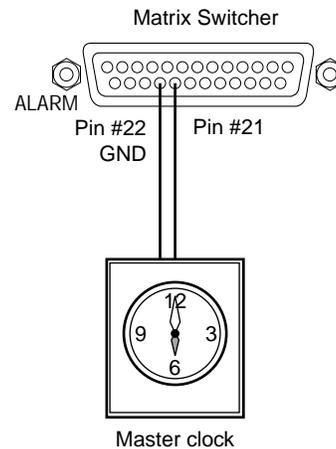
SETUP MENU or WJ-SX150 Administrator Console can assign the signal.

● Master Clock Connection Example for Time Adjustment

Connect the matrix switcher's time adjusting terminal to those of the master clock with the twisted pair cable.

The figure below shows the case in which Alarm Input 16 is assigned as the time adjusting terminal.

Note: A master clock with N.O. (Normally Open alarm contact)-type output is connectable.



WJ-SX150 SETUP PROCEDURES

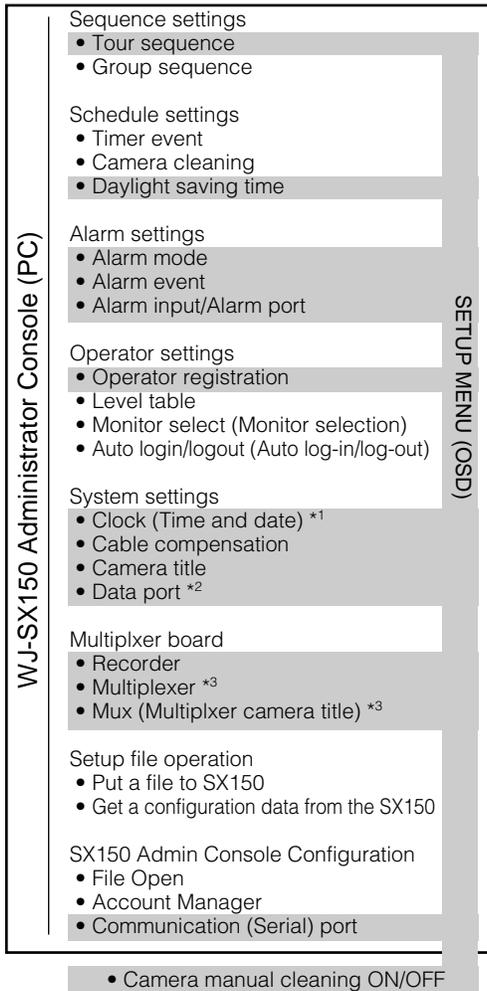
SETUP PROCEDURES

■ Setup Procedures

This unit has two setting procedures.

The one is SETUP MENU, which is the unit's on-screen display (OSD).

The other is WJ-SX150 Administrator Console, which operates on the PC.



*1 WJ-SX150 Administrator Console can configure the display pattern.

*2 WJ-SX150 Administrator Console can configure the communication speed (baud rate) of the ports Data 1 to 4.

*3 These menus (or windows) appear only when the Multiplexer is installed in the unit.

• SETUP MENU (OSD)

The basic functions, which are essential for the operation, are configurable. However, some items are not configurable. The settings about group sequences, operators and schedules, etc.

• WJ-SX150 Administrator Console (PC)

All the functions of this unit are configurable. You need a PC to use WJ-SX150 Administrator Console. Refer to p. 64 WJ-SX150 ADMINISTRATOR CONSOLE for details of the platform and installation.

Notes:

- To use WJ-SX150 Administrator Console, you need to prepare a PC and a 9-pin D-sub cable. (Refer to p. 47.)
- When changing the configuration of WJ-SX150 Administrator Console, configuration data getting and putting are necessary between the unit and PC to activate your configuration.

■ Description of Setup Procedures

This chapter describes about configurable items.

● Sequence Settings

SETUP MENU can configure tour sequences. WJ-SX150 Administrator Console can configure both of tour sequences and group sequences.

- Tour sequence: Up to 16 tour sequences are configurable (16 steps per tour).
- Group sequence: Tour sequences can be activated on up to 4 monitors simultaneously (1 tour sequence per monitor).

● Schedule Settings

SETUP MENU can configure daylight saving time. WJ-SX150 Administrator Console can configure timer event, camera cleaning, and daylight saving time.

- Timer event: A sequence or spot mode can be activated on the regular time of every month, week or day. Up to 30 timer events can be registered.
- Camera cleaning: Camera cleaning can be executed on the regular time of every month, week or day.
- Daylight saving time: Daylight saving times for 20 years are configurable.

● Alarm Settings

The operation parameters when an alarm is input to the unit are configurable.

- Alarm mode: The operation mode activated along with an alarm input is configurable. Sequence mode or hold mode is selectable. Alarm mode can be set to OFF when not using it.
- Alarm event: The event activated along with an alarm input is assignable to each alarm input terminals. The sequence number or spot camera is selectable for the alarm event.
- Alarm input (Alarm port): The alarm polarity (N. O. or N. C.) is assignable to each alarm input terminal. One of 16 terminals is assignable for time adjustment.

- It is also selectable whether to activate the recording and sequence/spot image monitoring when an alarm signal is input to the unit. Alarm recording without the sequence/spot image monitoring is also available.

● Operator Settings

If you control this unit with a terminal-mode system controller, your operator information, controllable monitors and auto log-in/log-out will be registrable and configurable.

- Operator registration: Up to 16 operators are available. ID and password for operator identification are configurable. Level and priority can be assigned to each operator. Each camera's control coverage is also configurable.
- Level table: Restriction level for each password is customizable.
- Monitor select (Monitor selection): Controllable monitor can be assigned to each controller.
- Auto login/logout (Auto log-in/log-out): Auto log-in/log-out is configurable for each controller.

Notes:

- These settings (except Operator registration) are configurable only through WJ-SX150 Administrator Console. Operator registration is configurable through SETUP MENU and WJ-SX150 Administrator Console.
- When you control the unit with a PS-Data system controller, the above settings will be invalid. Refer to the system controller's operating instructions.

● System Settings

SETUP MENU can configure the clock (time and date), cable compensation and camera title.

Besides these settings, WJ-SX150 Administrator Console can select the data ports' baud rates.

- Clock (Time and date): The unit's time and date are configurable.
- Cable compensation: Cable compensation type is selectable depending on the distance between a camera and the unit. It is also possible to determine whether to send the VD2 timing pulse or control data with the camera output signals.
- Camera title: Camera title is configurable to identify the camera images on the monitor. WJ-SX150 Administrator Console can configure the camera title including original characters.
- Data port: Usually, the ports DATA 1 to 3 connect to the terminal-mode system controllers. RS-485 cameras will be connectable with the data port configurations through WJ-SX150 Administrator Console and SETUP MENU.

When you use the system controllers via the PS-Data protocol, you need to configure the DATA 4 port setting through SX150 Admin Console or SETUP MENU.

- EXT IN: External synchronization of the EXT IN connector is set to ON or OFF.

● Multiplexer

- Recorder: The type and unit address of the recorder are configurable.
- MULTIPLEXER: The parameters of the recorder mode are configurable. You can set the alarm and normal recording rate. You can also activate/deactivate dynamic recording, dummy black, and CAM SW LOSS" indication.
- MUX (Multiplexer) CAMERA TITLE: Camera titles which are displayed with Multiscreen segments are configurable.

● Setup File Operation

WJ-SX150 Administrator Console can send a configuration file from the PC to this unit. The utility can also send the file from the unit to the PC for configuration.

- Put to a file: A configuration data is sent from the PC to the unit.
- Get from a file: A configuration data is sent from the unit to the PC.
- Select setup data file: A configuration data is selected when sending it from the PC to the unit (or from the unit to the PC.)

Note: These settings are configurable only through WJ-SX150 Administrator Console.

● WJ-SX150 Administrator Console Configuration

The PC-related settings are configurable.

- Account Manager: WJ-SX150 Administrator Console operators are registrable and changeable.
- Communication (Serial) port: PC's usable communication port number and its baud rate (communication speed) are configurable.

WJ-SX150 SETUP MENU (OSD)

The WJ-SX150 SETUP MENU (SETUP MENU) enables function controls that are not available by direct operation.

Note: Only one operator can enter SETUP MENU.

■ Displaying SETUP MENU

To display SETUP MENU, follow the procedure below.

1. Confirm that the camera and peripherals are correctly and securely connected and that all components are turned on.
2. To execute the selection, select one of the monitors (1 to 4) by pressing the numeric button, then press the MON (ESC) button.
The MONITOR indicator will light up.
3. Press the SETUP button while holding down the SHIFT button on the system controller.
WJ-SX150 SETUP MENU will appear on the active monitor as shown below, and the system controller's SETUP indicator will light up.
The tree of SETUP MENU is shown in the next page.

Note: "x.xx" in SETUP MENU shows the firmware version.

```
WJ-SX150 SETUP MENU                x.xx
100 TIME&DATE          Aug/21/2002 10:55 AM
200 D.S.T.             ON
300 SEQUENCE"↵
400 ALARM"↵
500 CAMERA TITLE"↵
600 RECORDER"↵
700 SYSTEM"↵
800 OPERATOR REGISTRATION"↵
```

(Without the Multiplexer board)*

* This is the factory default setting.



```
WJ-SX150 SETUP MENU                x.xx/x.xx
100 TIME&DATE          Aug/21/2002 10:55 AM
200 D.S.T.             ON
300 SEQUENCE"↵
400 ALARM"↵
500 CAMERA TITLE"↵
600 RECORDER"↵
700 SYSTEM"↵
800 OPERATOR REGISTRATION"↵
900 MULTIPLEXER"↵
1000 MUX CAMERA TITLE"↵
```

(With the Multiplexer board)

The following functions and buttons are valid in SETUP MENU:

Joystick to UP(▲): Moves the cursor up or returns to the previous page.

Joystick to DOWN(▼): Moves the cursor down or displays the next page.

Joystick to L(◀): Moves the cursor to the left.

Joystick to R(▶): Moves the cursor to the right.

PREV button: Selects the previous mode or parameter.

NEXT button: Selects the next mode or parameter.

Numeric buttons: Enters numerals.

CLEAR button: Deletes a character when editing a camera title.

CAM (SET) button: Executes the selections and displays a submenu for items with the ("↵") mark.

MON (ESC) button: Returns to SETUP MENU or the previous menu.

This operating instructions uses the symbols to describe the buttons.

4. To end the setting and return to the normal view, press the SETUP button while holding down the SHIFT button when SETUP MENU is displayed.
The system controller's SETUP indicator will go off.

Note: The Multiplexer board version, "900 MULTIPLEXER", and "1000 MUX CAMERA TITLE" is displayed only when the Multiplexer board is installed in the unit.

■ Programming SETUP MENU

As shown in the tree, SETUP MENU has seven main sub-menus:

TIME & DATE, D. S. T., SEQUENCE SETUP, ALARM SETUP, CAMERA TITLE, SYSTEM SETUP and OPERATOR REGISTRATION.

SEQUENCE SETUP, ALARM SETUP, CAMERA TITLE, SYSTEM SETUP and OPERATOR REGISTRATION are further divided into additional submenus.

The ("↵") mark indicates that the item has a submenu for more detailed setups.

Refer to the figure in next page for the composition of SETUP MENU.

■ TIME & DATE

```
WJ-SX150 SETUP MENU                x.xx/x.xx
100 TIME&DATE          Aug/21/2002 10:55 AM
200 D.S.T.             ON
300 SEQUENCE"↵
400 ALARM"↵
500 CAMERA TITLE"↵
600 RECORDER"↵
700 SYSTEM"↵
800 OPERATOR REGISTRATION"↵
900 MULTIPLEXER"↵
1000 MUX CAMERA TITLE"↵
```

● How to Display

To display this menu on the monitor, move the cursor to 100 TIME & DATE in SETUP MENU by moving the joystick to ▲ or ▼.

● Parameters

You can move the cursor to each parameter by moving the joystick to ◀ or ▶.

• Month

Press the NEXT or PREV button to select the correct month.

• Day

Press the numeric buttons to enter it directly.

WJ-SX150 SETUP MENU x.xx/x.xx

100 TIME&DATE Aug/21/2002 10:55 AM
 200 D.S.T. ON

300 SEQUENCE*
 400 ALARM*
 500 CAMERA TITLE*
 600 RECORDER*
 700 SYSTEM*
 800 OPERATOR REGISTRATION*
 900 MULTIPLEXER*
 1000 MUX CAMERA TITLE*

Outside the U. S. :
 · Aug/21/2002... 21/08/2002
 · D. S. T.... SUMMER TIME

300 SEQUENCE

TOUR NO. =1

STEP	CAM	PRE DWELL	STEP	CAM	PRE DWELL
1	1	-- 2S	9	9	-- 2S
2	2	-- 2S	10	10	-- 2S
3	3	-- 2S	11	11	-- 2S
4	4	-- 2S	12	12	-- 2S
5	5	-- 2S	13	13	-- 2S
6	6	-- 2S	14	14	-- 2S
7	7	-- 2S	15	15	-- 2S
8	8	-- 2S	16	16	-- 2S

400 ALARM

410 ALARM MODE SEQUENCE → DWELL 2sec

420 ALARM EVENT*
 ALARM INPUT

430 CAMERA OFF

440 ALARM PORT ON*

450 SERIAL PORT ON

460 MUX MOTION DET OFF*

500 CAMERA TITLE 2 of 2

500 CAMERA TITLE 1 of 2

CAM	TITLE
1	
2	
3	
4	
5	
6	
7	
8	

600 RECORDER

610 REDORDER CONTROL OFF

620 RECORDER UNIT ADDRESS 1

700 SYSTEM

710 COMPENSATION/VD2/DATA*

720 RS485 CAMERA*

730 DATA4/PSD PORT SELECT PSD

740 PSD/HDR PORT SPEED 9600bps

750 SERIAL PORT SPEED 38400bps

760 EXT IN GENLOCK OFF

770 CAMERA CLEANING OFF

800 OPERATOR REGISTRATION

OPERATOR NO.=01 ID =150
 PASSWORD=*****
 PRIORITY=1
 LEVEL =1

CAM01=VIEW&CONTROL CAM09=VIEW&CONTROL
 CAM02=VIEW&CONTROL CAM10=VIEW&CONTROL
 CAM03=VIEW&CONTROL CAM11=VIEW&CONTROL
 CAM04=VIEW&CONTROL CAM12=VIEW&CONTROL
 CAM05=VIEW&CONTROL CAM13=VIEW&CONTROL
 CAM06=VIEW&CONTROL CAM14=VIEW&CONTROL
 CAM07=VIEW&CONTROL CAM15=VIEW&CONTROL
 CAM08=VIEW&CONTROL CAM16=VIEW&CONTROL

900 MULTIPLEXER

VCR REC MODE

910 ALARM EXT.
 920 NORMAL EXT.

930 DYNAMIC REC OFF
 940 DUMMY BLACK OFF
 950 CAM SW LOSS ON

1000 MUX CAMERA TITLE

CAM	TITLE	CAM	TITLE
1	C01	9	C09
2	C02	10	C10
3	C03	11	C11
4	C04	12	C12
5	C05	13	C13
6	C06	14	C14
7	C07	15	C15
8	C08	16	C16

420 ALARM EVENT 2 of 2

420 ALARM EVENT 1 of 2

ALM	MON	MODE
1	1	CAM01 → PRE--
2	1	CAM02 → PRE--
3	1	CAM03 → PRE--
4	1	CAM04 → PRE--
5	1	CAM05 → PRE--
6	1	CAM06 → PRE--
7	1	CAM07 → PRE--
8	1	CAM08 → PRE--

440 ALARM INPUT(ALARM PORT)

1	N.O.	9	N.O.
2	N.O.	10	N.O.
3	N.O.	11	N.O.
4	N.O.	12	N.O.
5	N.O.	13	N.O.
6	N.O.	14	N.O.
7	N.O.	15	N.O.
8	N.O.	16	N.O.

610 COMPENSATION/VD2/DATA

CAM	COMP	VD2	DATA	CAM	COMP	VD2	DATA
1	S	ON	ON	9	S	ON	ON
2	S	ON	ON	10	S	ON	ON
3	S	ON	ON	11	S	ON	ON
4	S	ON	ON	12	S	ON	ON
5	S	ON	ON	13	S	ON	ON
6	S	ON	ON	14	S	ON	ON
7	S	ON	ON	15	S	ON	ON
8	S	ON	ON	16	S	ON	ON

620 RS485 CAMERA

CAM	PORT	CAM	PORT
1	--	9	--
2	--	10	--
3	--	11	--
4	--	12	--
5	--	13	--
6	--	14	--
7	--	15	--
8	--	16	--

• **Year**

Press the numeric button to enter the correct year.

• **TIME**

Press the numeric button to enter the correct time.

• **MINUTE**

Press the numeric button to enter the correct minute.

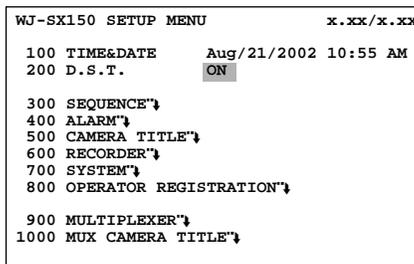
• **AM/PM**

Press the NEXT or PREV button to select the correct time. After the configuration, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

Notes:

- Adjust the time and date when the clock display is different from the current one.
- The clock display pattern is changeable with the setting in WJ-SX150 Administrator Console. (Refer to p. 77.) The factory default setting is Month/Day/Year.
- The clock is automatically adjusted to 0 second of the setting time and date when closing SETUP MENU.
- Hour system (12- hours or 24- hours) is changeable through WJ-SX150 Administrator Console.

■ D. S. T. (Daylight Saving Time)



● How to Display

To display this menu on the monitor, move the cursor to 200 D. S. T. in SETUP MENU by moving the joystick to ▼ or ▲.

● Parameters

Select ON or OFF by pressing the NEXT or PREV buttons.

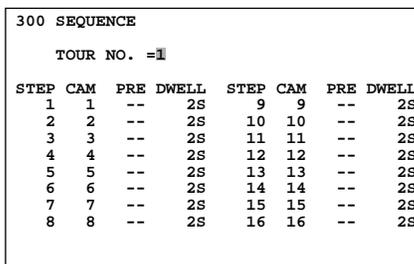
- ON:** Daylight saving time is activated.
- OFF:** Daylight saving time is deactivated.

The factory default setting is ON.

After the configuration, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

Note: The start/end date are configurable through WJ-SX150 Administrator Console. (Refer to p. 71.)

■ SEQUENCE SETUP



● How to Display

To display this menu on the monitor, move the cursor to 300 SEQUENCE in SETUP MENU by moving the joystick to ▼ or ▲.

Then, press the CAM (SET) button. The submenu appears on the monitor.

● Parameters

Move the joystick to move the cursor. Press the NEXT or PREV button to select the desired parameters. Press the numeric button(s) to enter a number.

TOUR NO: Press the NEXT or PREV button to select the tour number. Or press the numeric button(s) to enter a number.

STEP: This stands for a tour sequence step.

CAM: This stands for a camera number. CAM 0 to 16 is selectable. CAM 0 deactivates the sequence step.

The factory default setting is assigned to each step in numerical order (STEP 1 = CAM 1, STEP 2 = CAM 2, STEP 3 = CAM 3, STEP 4 = CAM 4, STEP 5 = CAM 5...)

PRE: This stands for a camera's preset position number. 1 to 64 or "- -" is selectable. When the camera has no preset position, select "- -". You can set "- -" by pressing the button 0.

The factory default setting is "- -".

DWELL: This stands for the dwell time. 1 second to 30 seconds are selectable. If you enter 0, the sequence step will be skipped.

The factory default setting is 2S for each step.

After the configuration, press the MON (ESC) button. The monitor display will return to the previous menu.

After all the configurations, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

Notes:

- A preset position number is available only when a combination camera is selected for CAM.
- The available preset position numbers differ among cameras. Refer to each camera's operating instructions.

ALARM SETUP

```

400 ALARM
410 ALARM MODE SEQUENCE → DWELL 2sec
420 ALARM EVENT!
    ALARM INPUT
430 CAMERA OFF
440 ALARM PORT ON↵
450 SERIAL PORT ON
460 MUX MOTION DET OFF↵
  
```

How to Display

To display this menu on the monitor, move the cursor to 400 ALARM in SETUP MENU by moving the joystick to ▼ or ▲. Then, press the CAM (SET) button. The submenu appears on the monitor.

Parameters

Move the joystick to move the cursor.

Press the NEXT or PREV button to select the desired parameters.

Press the numeric button(s) to enter a number.

ALARM MODE

You can select an operation mode when alarm input signals are accepted by the unit.

Notes:

- The alarm mode is activated when alarm input signals are assigned to the same monitor through 420 ALARM EVENT or the Alarm Event (refer to p. 74) window.
- While alarm is activated, you cannot operate the functions related to the multiplexer board.

SEQUENCE: An alarm operation is replaced by another one after the dwell time (DWELL) ends.

HOLD: An initial alarm operation is continued even after another alarm input is accepted.

OFF: Select this when not using the alarm mode.

The factory default setting is SEQUENCE.

DWELL

This stands for the dwell time of a sequence during an alarm mode.

1 to 30 seconds are selectable.

The factory default setting is 2 seconds.

ALARM EVENT

This item is configurable in 420 ALARM EVENT.

Move the cursor and press the CAM (SET) button.

420 ALARM EVENT will appear on the monitor.

```

420 ALARM EVENT 1 of 2
ALM MON MODE
1 1 CAM01 → PRE--
2 1 CAM02 → PRE--
3 1 CAM03 → PRE--
4 1 CAM04 → PRE--
5 1 CAM05 → PRE--
6 1 CAM06 → PRE--
7 1 CAM07 → PRE--
8 1 CAM08 → PRE--
  
```

```

420 ALARM EVENT 2 of 2
ALM MON MODE
9 1 CAM09 → PRE--
10 1 CAM10 → PRE--
11 1 CAM11 → PRE--
12 1 CAM12 → PRE--
13 1 CAM13 → PRE--
14 1 CAM14 → PRE--
15 1 CAM15 → PRE--
16 1 CAM16 → PRE--
  
```

ALM: This stands for the alarm number.

MON: This stands for the monitor number.

MODE: This stands for the display mode of an alarm image.

- CAMnn (nn is the camera number): Activates the spot camera when an alarm input is accepted.

- **PRE:** This item stands for the preset position number of a CAMnn. Enter the desired preset position number when selecting a combination camera. When selecting another type of camera, select --.
- **TOURnn** (nn is a tour sequence number): Executes a tour sequence when an alarm input is accepted.

The factory default setting is the same as the two illustrations above.

Notes:

- **MODE** and **PRE** cannot be selected by pressing the numeric buttons. Press the **NEXT** or **PREV** button for selection.
- **PRE** doesn't appear when **TOUR 1** to **16** is selected for **MODE**.
- When selecting a camera without the preset position function, select "--" for **PRE**.
- When moving the joystick to ▼ at the bottom of **ALARM EVENT 1** of **2**, the monitor will display **2** of **2** (the next page).
- When moving the joystick to ▲ at the top of **ALARM EVENT 2** of **2**, the monitor will display **1** of **2** (the previous page).

After the configuration, press the **MON (ESC)** button. The monitor display returns to **ALARM SETUP**.

• **ALARM INPUT**

CAMERA

This stands for that an alarm input is accepted via the **CAMERA IN** connectors or the **RS-485** ports.

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

REC ONLY: Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

Note: You cannot recover alarm-related operations from system controllers when **REC ONLY** is selected.

OFF: An alarm input is accepted neither via the **CAMERA IN** connectors nor the **RS-485** ports.

The factory default setting is **OFF**.

ALARM PORT

This stands for that an alarm input is accepted via the **ALARM port** (25-pin D-sub connector at the rear panel).

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit.)

REC ONLY: Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

Note: You cannot recover alarm-related operations from system controllers when **REC ONLY** is selected.

OFF: An alarm input is not accepted via the **ALARM port**.

The factory default setting is **ON**.

Each alarm input's polarity is configurable in **440 ALARM INPUT (ALARM PORT)**.

Set **ALARM PORT** to **ON** or **REC ONLY**, and press the **CAM (SET)** button.

440 ALARM INPUT (ALARM PORT) will appear on the monitor.

440 ALARM INPUT(ALARM PORT)			
1	N.O.	9	N.O.
2	N.O.	10	N.O.
3	N.O.	11	N.O.
4	N.O.	12	N.O.
5	N.O.	13	N.O.
6	N.O.	14	N.O.
7	N.O.	15	N.O.
8	N.O.	16	N.O.

To select an alarm input polarity required for the **ALARM port**, press the **PREV** or **NEXT** button.

N.O.: Selects Normally Open alarm contact.

N.C.: Selects Normally Closed alarm contact.

TIME: Enables the input for time adjustment.

The factory default setting is **N.O.**

Notes:

- Use **N.O.** type master clock.
- If **TIME** is selected, an alarm input terminal can adjust the clock by ±30 seconds with an **N.O.** type signal input. For example, when the clock time is between 00:59:30 and 01:00:30, it will be automatically adjusted to 01:00:00 by the master clock.

After the configuration, press the **MON (ESC)** button. The monitor display returns to **400 ALARM SETUP**.

SERIAL PORT

This stands for that an alarm input is accepted via the **SERIAL port**. The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit.)

REC ONLY: Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

Note: You cannot recover alarm-related operations from system controllers when **REC ONLY** is selected.

OFF: An alarm input is not accepted via the **SERIAL port**.

The factory default setting is **ON**.

• **MUX MOTION DET**

This menu appears only when the Multiplexer board is installed in the unit.

This stands for that the unit's motion detector is activated when a camera detects the brightness-level change and transmit an alarm signal.

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit.)

REC ONLY: Only alarm recording will start and monitors will keep displaying the current sequence/spot images.

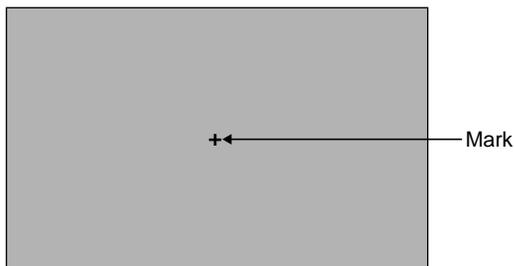
Note: You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

OFF: An alarm input is not accepted by the motion detector.

To configure where to activate the motion detector, set MUX MOTION DET to ON or REC ONLY, and press the CAM (SET) button. The live image will be displayed.

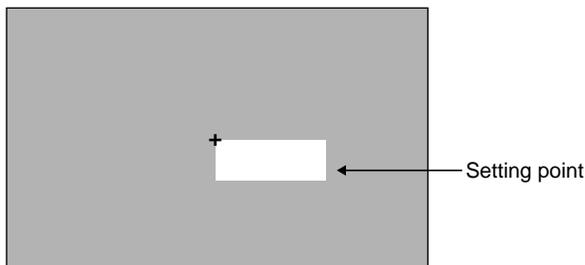
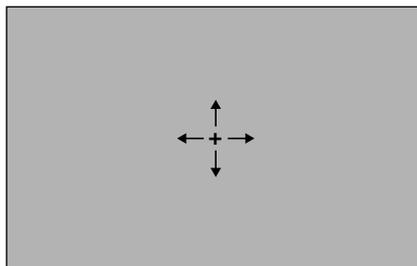
Note: Black image will be displayed on the monitor if the currently selected channel has no camera connection.

A "+" mark appears at the center of the monitor.



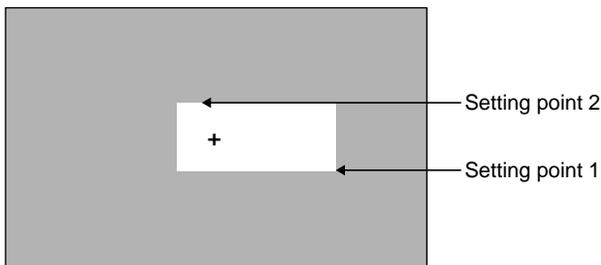
The following is the setting procedure.

1. Move the cursor with the joystick to the desired area, and then press the CAM (SET) key. Setting point 1 is determined.



2. Move the "+" mark to the desired area, and then press the CAM (SET) key. Setting point 2 is determined and the "+" mark will disappear. Then, the mark will appear again at the center of the monitor. The square, covered with Setting point 1 and 2, is showing the motion-detection area.

Note: White images will be displayed in the square if the currently selected channel has no camera connection.



3. To configure more motion-detection area, repeat Step 1 and 2. Up to 4 motion-detection areas are available.

Notes:

- If you repeat Step 1 after setting 4 motion-detection areas, "NG" will blink at the center of the monitor for two seconds.
 - To reset a motion-detection area, move the "+" mark on the desired area. Then, press the CLEAR button. The area will be reset.
 - If an area overlaps another one, the newer area will be reset.
5. To configure the motion-detector areas of another camera channel, press the NEXT or PREV button.

6. Repeat Step 1 to 4.

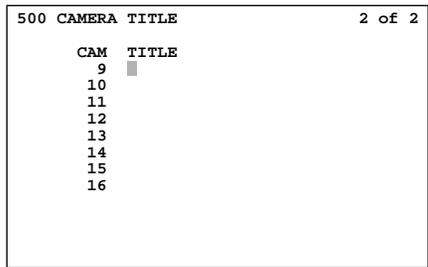
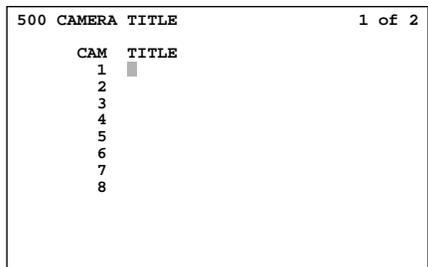
Notes:

- If you press the CLEAR button before determining four motion-detection areas, all the areas of the channel will be reset.
- Setting point 1 and 2 are determined only when the "+" mark has moved 5 segments both vertically and horizontally.

After the configuration, press the MON (ESC) button. The motion-detection setting will be memorized and the monitor display will return to the previous menu.

After all the configurations, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

■ CAMERA TITLE



● How to Display

To display this menu on the monitor, move the cursor to 500 CAMERA TITLE in SETUP MENU by moving the joystick to ▼ or ▲. Then, press the CAM (SET) button. The submenu appears on the monitor.

● How to edit

A camera title is composed of up to 20 characters. Each camera number is fixed and the subsequent 20 characters are editable.

The characters available here are the following:
ABCDEFGHIJKLMN OPQRSTUVWXYZabcdefghijklmnopqrs
tuvwxyz0123456789!#\$%&'()*+,-./:;=?•_(space)

The factory default settings are same as the illustrations.

1. Edit the camera titles by pressing the NEXT or PREV buttons.
 The NEXT button toggles these characters in this order.
 The PREV button toggles these characters in a reverse order.
 Joystick and the CLEAR button are also usable for the edit. (Refer to p. 52 Displaying SETUP MENU for each use.)
2. After the configuration, press the MON (ESC) button.
 The monitor display will return to the previous menu.

After all the configurations, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

Notes:

- When moving the joystick to ▼ at the bottom of CAMERA TITLE 1 of 2, the monitor will display 2 of 2 (the next page).

- When moving the joystick to ▲ at the top of CAMERA TITLE 2 of 2, the monitor will display 1 of 2 (the previous page).
- Original characters are configurable through WJ-SX150 Administrator Console, but they are not displayed correctly in SETUP MENU. They are displayed as ■. (Refer to p. 80 Edit Font window.)

■ RECORDER

```
600 RECORDER
610 REDORDER CONTROL      HD500
620 RECORDER UNIT ADDRESS 1
```

● How to Display

To display this menu on the monitor, move the cursor to 600 RECORDER in SETUP MENU by moving the joystick to ▲ or ▼. Then, press the CAM (SET) button. The submenu will appear on the monitor.

● Parameters

Move the joystick to move the cursor.
 Press the NEXT or PREV button to select the desired parameters.
 Press the numeric button(s) to enter a number.

• RECORDER CONTROL

This stands for the recorder type. The selectable parameters differ depending on the existing of the Multiplexer board installation.

Without the Multiplexer board

- HD500:** Select this when a WJ-HD500 Series recorder is connected to the unit.
- OFF:** Select this when no recorder is connected to the unit.

The factory default setting is HD500.

With the Multiplexer board

- VCR:** Select this when a time-lapse VCR is connected to the unit.
- HD100:** Select this when a WJ-HD100 Series recorder is connected to the unit.
- OFF:** Select this when no recorder is connected to the unit.

The factory default setting is OFF.

• RECORDER UNIT ADDRESS

This stands for the recorder's unit address. 1 to 99 is available.

■ SYSTEM SETUP

```
700 SYSTEM
710 COMPENSATION/VD2/DATA*
720 RS485 CAMERA*
730 DATA4/PSD PORT SELECT  PSD
740 PSD/HDR PORT SPEED     9600bps
750 SERIAL PORT SPEED       38400bps

760 EXT IN                   GENLOCK OFF
770 CAMERA CLEANING          OFF
```

● How to Display

To display this menu on the monitor, move the cursor to 600 SYSTEM in SETUP MENU by moving the joystick to ▼ or ▲. Then, press the CAM (SET) button. The submenu appears on the monitor.

● Parameters

Move the joystick to move the cursor.
 Press the NEXT or PREV button to select the desired parameters.

• COMPENSATION/VD2/DATA

This menu links to the submenu.
 Move the cursor and press the CAM (SET) button to go into the menu.
 710 COMPENSATION/VD2/DATA will appear on the monitor.

```
710 COMPENSATION/VD2/DATA
CAM  COMP  VD2  DATA  CAM  COMP  VD2  DATA
1   S   ON   ON      9   S   ON   ON
2   S   ON   ON     10   S   ON   ON
3   S   ON   ON     11   S   ON   ON
4   S   ON   ON     12   S   ON   ON
5   S   ON   ON     13   S   ON   ON
6   S   ON   ON     14   S   ON   ON
7   S   ON   ON     15   S   ON   ON
8   S   ON   ON     16   S   ON   ON
```

CAM: This stands for the camera number.
COMP: This stands for cable compensation.

Select the desired setting according to the cable length.

- S:** Less than 400 m (1 300 ft)
- M:** 400 m (1 300 ft) to 700 m (2 300 ft)
- L:** 700 m (2 300 ft) to 900 m (3 000 ft)

Refer to p. 37 for available cables.
 The factory default setting is S.

VD2: To send the VD2 timing pulse with the camera output signal, select ON. Not to send the VD2 timing pulse with the camera output signal, select OFF. The factory default setting is ON.

DATA: To send the control data with the camera output signal, select ON. Not to send the control data with the camera output signal, select OFF. The factory default setting is ON.

After the configuration, press the MON (ESC) button. The monitor display returns to the previous menu.

• RS485 CAMERA SETUP

This menu links to the submenu.
 Move the cursor and press the CAM (SET) button to go into the menu. 720 RS485 CAMERA will appear on the monitor.

720 RS485 CAMERA			
CAM	PORT	CAM	PORT
1	--	9	--
2	--	10	--
3	--	11	--
4	--	12	--
5	--	13	--
6	--	14	--
7	--	15	--
8	--	16	--

- CAM:** This stands for the camera number.
PORT: This stands for the data port to which an RS-485 type camera is connected. The following are the parameters.
- --(DISABLE): Select this when using the camera via coaxial communication or not using the camera.
 - RS485: Select this when connecting the camera to an RS-485 port.
 - DATA1: Select this when connecting the camera to the DATA 1 port.
 - DATA 2: Select this when connecting the camera to the DATA 2 port.
 - DATA 3: Select this when connecting the camera to the DATA 3 port.

The factory default setting is DISABLE (for CAM 1 to 16).

Note: The settings of camera inputs without camera connections are ignored.

• DATA4/PSD PORT SELECT

This stands for the operation mode: PS-Data or the terminal mode.

- PSD:** Select this when connecting a PS-Data controller to the DATA 4 port.
- DATA 4:** Select this when connecting a terminal-mode controller to the DATA 4 port.

The factory default setting is PSD.

• PSD/HDR PORT SPEED

This stands for the PS-Data communication speed (or baud rate) of the DATA 4 port.
 19200, 9600 or 4800 bps is selectable.

The factory default setting is 9600 bps.

• SERIAL PORT SPEED

Select the desired communication speed for SERIAL (the serial port), with the NEXT or PREV button.

- 38400 bps:** The speed is set to 38400 bps.
- 19200 bps:** The speed is set to 19200 bps.
- 9600 bps:** The speed is set to 9600 bps.
- 4800 bps:** The speed is set to 4800 bps.

The factory default setting is 38400 bps.
 After the configuration, press the MON (ESC) button. The monitor display will return to the previous menu.

After all the configurations, press the SETUP button while holding down the SHIFT button. The configuration will be updated when closing SETUP MENU.

• EXT IN

This stands for the setting of the EXT IN connector at the unit's rear panel.
 This menu does not appear when the Multiplexer board is installed in the unit.

GENLOCK

- ON:** Select this mode to gen-lock the unit with the recorder.
- OFF:** Select this mode if the asynchronous unit is connected with the recorder.

The factory default setting is GENLOCK OFF.

Notes:

- If GENLOCK ON is selected, the playback images or multiscreen display cannot be displayed on Monitor 1 to 4. Confirm the images on the monitor which are connected to the recorder.
- If GENLOCK OFF is selected, the maximum rate recording becomes unavailable (when WJ-HD500A is connected to the unit).

• CAMERA CLEANING

ON: Activates the manual cleaning for the cameras.

OFF: Deactivates the manual cleaning.

When you set CAMERA CLEANING to ON and exit from the SETUP MENU, camera cleaning will start.

The factory default setting is OFF.

Notes:

- When the camera cleaning is active, cleaning will begin from CAM 1 in numerical order.
- Surveillance is impossible during the cleaning.
- The cleaning cannot be stopped after it is started.
- Refer to pp. 38 and 39 for details on RS-485 or PS-Data connections.
- The camera address needs to be corresponding with the camera number.

■ OPERATOR REGISTRATION

800 OPERATOR REGISTRATION	
OPERATOR NO.=01	ID =150 PASSWORD=***** PRIORITY=1 LEVEL =1
CAM01=VIEW&CONTROL	CAM09=VIEW&CONTROL
CAM02=VIEW&CONTROL	CAM10=VIEW&CONTROL
CAM03=VIEW&CONTROL	CAM11=VIEW&CONTROL
CAM04=VIEW&CONTROL	CAM12=VIEW&CONTROL
CAM05=VIEW&CONTROL	CAM13=VIEW&CONTROL
CAM06=VIEW&CONTROL	CAM14=VIEW&CONTROL
CAM07=VIEW&CONTROL	CAM15=VIEW&CONTROL
CAM08=VIEW&CONTROL	CAM16=VIEW&CONTROL

● How to Display

To display this menu on the monitor, move the cursor to 800 OPERATOR REGISTRATION in SETUP MENU by moving the joystick to ▼. Then, press the CAM (SET) button. The submenu appears on the monitor.

● Parameters

Move the joystick to move the cursor.

Press the NEXT or PREV button to select the desired parameters.

Press the numeric button(s) to enter a number.

• OPERATOR NO.

This stands for an operator number. When you enter the number by pressing the NEXT, PREV or numeric button(s), this menu will display the associated operator's information. 1 to 16 is available.

• ID

This stands for an operator ID. 1 to 99999 is available.

• PASSWORD

This stands for an operator's password. 1 to 99999 is available. The password will be displayed as "*" on the monitor.

• PRIORITY

This stands for an operator's priority. 1 to 16 is available. (Refer to p. 14 for details on Priority Lock.)

• LEVEL

This stands for an operator's restrict level. It is configurable through Level Table (refer to p. 76) of WJ-SX150 Administrator Console what kind of restriction is given to the operator. 1 to 3 is available.

• CAM 01 to 16:

These stand for an operator's camera operation coverage. The following are the parameters.

VIEW & CONTROL: The operator can display the camera image on the monitor and control panning/tilting.

VIEW ONLY: The operator can display the camera image on the monitor, but cannot control the panning/tilting.

PROHIBITED: The operator can neither display the camera image on the monitor nor control the panning/tilting.

The following is the factory default setting of this menu.

OPERATOR NO.	ID	PASSWORD	LEVEL	PRIORITY
1	150	150	1	1
2	1	12345	1	2
3	100	100	1	3
4	101	101	1	4
5	102	102	2	5
6	103	103	3	6

CAM 1 to 16 = VIEW & CONTROL (for OPERATOR NO. 1 to 6)

Note: When you enter an invalid number, the parameter will return to the state before your numerical entry.

■ MULTIPLEXER

900 MULTIPLEXER		
VCR REC MODE		
910	ALARM	EXT.
920	NORMAL	EXT.
930	DYNAMIC REC	OFF
940	DUMMY BLACK	OFF
950	CAM SW LOSS	ON

● How to Display

This menu will appear only when the Multiplexer board is installed in the unit. To display this menu on the monitor, move the cursor to 900 MULTIPLEXER in SETUP MENU by moving the joystick to ▲ or ▼. Then, press the CAM (SET) button. The submenu appears monitor.

● Parameters

Move the joystick to move the cursor.

Press the NEXT or PREV button to select the desired parameters.

• ALARM

EXT: Select this to gen-lock the unit with the recorder when an alarm is input to the unit.

002,004 to 128 (field): Select one of these alarm recording rates if the asynchronous unit is connected to the unit.

The factory default setting is EXT.

• NORMAL

EXT: Select this to gen-lock the unit during the normal operation.

002,004 to 255 (field): Select one of these normal recording rates if the asynchronous unit is connected to the unit.

The factory default setting is EXT.

• DYNAMIC REC

PRI.: Select this to give recording priority to the camera channel with the alarm input.

ONLY: Select this to record the images from the alarm-associated camera channel.

GROUP: Select this to give recording priority to a group of up to 4 camera channels associated to the alarm input.

OFF: Select this to deactivate the alarm priority mode.

The factory default setting is OFF.

• DUMMY BLACK

ON: Select this to display the black picture for a camera channel that is not connected to the camera.

OFF: Select this to skip the camera channels that are not connected to the camera in the sequence/spot mode.

The factory default setting is ON.

• CAM SW LOSS

ON: Select this to make "SW LOSS" blinking on the associated monitor when loss of the camera switching pulse is detected.

OFF: Select this not to make "SW LOSS" appear on the associated monitor when loss of the camera switching pulse is detected.

The factory default setting is ON.

Note: If EXT is selected for 910 ALARM/920 NORMAL, the playback images cannot be displayed on the monitors which are not connected to the EXT IN connector. Confirm the images on those which are connected to the recorder.

■ MUX CAMERA TITLE

1000 MUX CAMERA TITLE			
CAM	TITLE	CAM	TITLE
1	C01	9	C09
2	C02	10	C10
3	C03	11	C11
4	C04	12	C12
5	C05	13	C13
6	C06	14	C14
7	C07	15	C15
8	C08	16	C16

● How to Display

This menu will appear only when the Multiplexer board is installed in the unit. To display this menu on the monitor, move the cursor to 1000 MUX CAMERA TITLE in SETUP MENU by moving the joystick to ▲ or ▼. Then, press the CAM (SET) button. The submenu appears monitor.

● How to edit

The factory default settings are same as illustrations.

The editing procedure is the same as 500 CAMERA TITLE. (Refer to p. 59.)

Notes:

- Up to 8 alphanumeric characters are available for each multiplexer board camera title.
- When moving the joystick to ▲ at the last text box of CAM 8 TITLE, the cursor will move to the first text box of CAM 9 TITLE.
- When moving the joystick to ▼ at the first text box of CAM 9 TITLE, the cursor will move to the last text box of CAM 8 TITLE.

WJ-SX150 ADMINISTRATOR CONSOLE

■ Description of WJ-SX150 Administrator Console

WJ-SX150 Administrator Console is a utility software which can configure the system settings and control data of this surveillance system.

WJ-SX150 Administrator Console can configure the following settings.

● RECORDER

- Recorder (p. 66)

● MANAGEMENT

- Put a File to SX150 (p. 67)
- Get a Configuration Data from SX150 (p. 68)

● SETUP

Sequence Settings

- Tour Sequence (p. 68)
- Group Sequence (p. 69)

Schedule Settings

- Timer Event (p. 70)
- Camera Cleaning (p. 71)
- Daylight Saving Time/Summer Time (p. 71)

Alarm Settings

- Alarm Mode (p. 72)
- Alarm Event (p. 74)
- Alarm Port (p. 74)

Operator Settings

- Operator Registration (p. 75)
- Level Table (p. 76)
- Monitor Selection (p. 76)
- Auto Login/Logout (Auto Log-in/Log-out) (p. 77)

System Settings

- Time & Date (p. 77)
- Cable Compensation/VD2/DATA (p. 78)
- Camera Title (p. 79)
- Data Port (p. 81)

Multiplexer Settings

- Multiplexer Mode (p. 82)

WJ-SX150 Administrator Console

- Select Setup Data File (p. 84)
- Account Manager (p. 85)
- Communication Port (p. 86)

Trademarks

- IBM is a trademark of International Business Machines Corporation.

- Intel and Pentium are trademarks of Intel Corporation.
- Microsoft® Windows® are either registered trademarks of Microsoft Corporation in the United States and/or other countries.
- VD2 is the original synchronization system of Matsushita Communication Industrial Co., Ltd. and Matsushita Electric Industrial Co., Ltd.
- Other company names and product names appearing in the manual are registered trademarks or trademarks of the company concerned.

Platform

To install WJ-SX150 Administrator Console, the PC should meet the following requirements.

- Hardware requirements
IBM PC or 100 % compatible, Pentium-400 MHz or higher, 64 MB RAM, 2 MB hard drive space with additional space for configuration database (.sdt) and log. In addition, the PC must be equipped with a serial port.
- Operating system requirements
Microsoft® Windows® 98, 98 SE, 2000, XP Professional
- Video display setting requirements
 - * High color (16 bit) or higher
 - * 800 x 600 resolution

When installing in the default system setting, the software is installed in the following directory:

C:\Program Files\Panasonic\SX150

■ Installation/Uninstallation

● Installation

Insert the CD-ROM program disk into the CD-ROM drive on the PC. Double-click "Setup.exe" to begin the installation. Respond to the dialog boxes by following the directions given.

● Uninstallation

1. Select "Start" – "Settings" – "Control Panel".
2. Click on the "Add/Remove Hardware" button.
3. Select WJ-SX150 Administrator Console and click on "Add/Remove".
4. Operate according to the direction in the window.

● Before Using WJ-SX150 Administrator Console

1. Select "Start" – "Program" – "Panasonic" – "WJ-SX150 Administrator Console x.xx*" or double-click the "WJ-SX150 Administrator Console x.x" icon on the desktop.
2. When you launch WJ-SX150 Administrator Console for the first time, the following window will appear on the PC screen.
Select "Yes".



→The selection will be memorized to WJ-SX150 Administrator Console while launching it.

Note: To change the selection you have done in the "Startup Menu" window, restart the WJ-SX150 Administrator Console while holding down the SHIFT key on the PC keyboard.

● Startup/Termination

1. Select "Start" – "Program" – "Panasonic" – "WJ-SX150 Administrator Console x.xx*" or double-click the "WJ-SX150 Administrator Console x.x" icon on the desktop.
* x.x: Software version

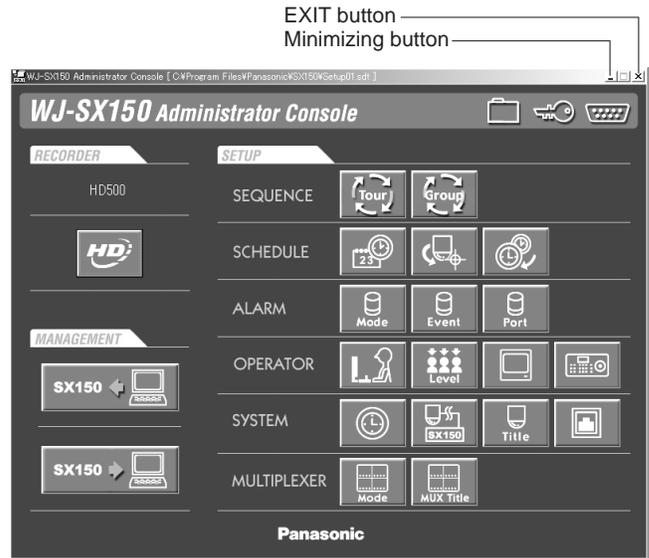


→The UserID and Password Required window will appear on the PC screen.

2. Enter "admin" and "sx150" in the boxes "Name" and "Password" respectively. Then, click on the OK button.



→WJ-SX150 Administrator Console starts up and the main window will appear on the PC screen.



3. When terminating the software, click on the EXIT button or press the ESC button on the PC keyboard. The main window will close and WJ-SX150 Administrator Console will be terminated.

Note: The operator name and password are changeable. Operator addition is also available. The configuration of each operator name, password and level are necessary. (Refer to p. 85 Account Manager.)

■ The Main Window

This window appears when starting up WJ-SX150 Administrator Console.

Clicking on each button in the window will display the associated configuration window.

Refer to the description of each window for details.



RECORDER

 **(Recorder Control):**
Recorder window (p. 66)

MANAGEMENT

 **(Put to SX150):**
Put a File to SX150 window (p. 67)

 **(Get from SX150):**
Get a Configuration Data from SX150 window
(p. 68)

SEQUENCE

 **(Tour Sequence):** Tour Sequence window
(p. 68)

 **(Group Sequence):** Group Sequence window
(p. 69)

SCHEDULE

 **(Timer Event):**
Timer Event window (p. 70)

 **(Camera Cleaning):**
Camera Cleaning window (p. 71)

 **(Daylight Saving Time/Summer Time):**
Daylight Saving Time/Summer Time window
(p. 71)

ALARM

 **(Alarm Mode):**
Alarm Mode window (p. 72)

 **(Alarm Event):**
Alarm Event window (p. 74)

 **(Alarm Port):**
Alarm Port window (p. 74)

OPERATOR

 **(Operator Registration):**
Operator Registration window (p. 75)

 **(Level Table):**
Level Table window (p. 76)

 **(Monitor Selection):**
Monitor Selection window (p. 76)

 **(Auto Login/Logout):**
Auto Login/Logout window (p. 77)

SYSTEM

 **(Time & Date):**
Time & Date window (p. 77)

 **(Cable Compensation/VD2/DATA):**
Cable Compensation/VD2/DATA window (p. 78)

 **(Camera Title):**
Camera Title window (p. 79)

 **(Data Port):**
Data Port window (p. 81)

MULTIPLEXER

 **(Multiplexer Mode):**
Multiplexer Mode window (p. 82)

 **(Multiplexer Title):**
Multiplexer Title window (p. 84)

In addition, the main window has the following buttons.

 **(File Open):**
Select Setup Data File window (p. 84)

 **(Account Manager):**
Account Manager window (p. 85)

 **(Communication Port):**
Communication Port window (p. 86)

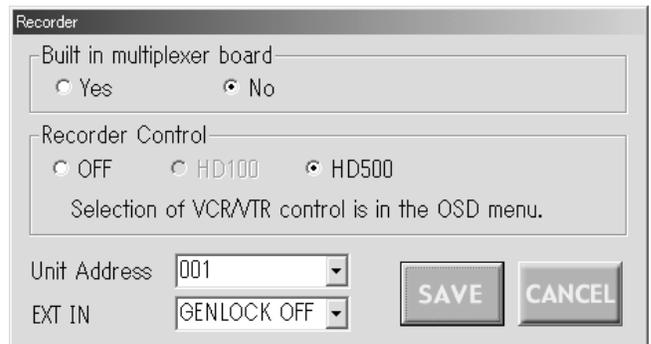
Panasonic (Panasonic):
Opens the version information window of WJ-SX150 Administrator Console. Clicking on "OK" button will close the window.

Notes:

- To reflect each configuration to the system, save the file by pressing the SAVE button before closing the window. After that, be sure to put the file from the PC to the unit.
- When "No" is selected for Built in Multiplexer board in the Recorder (refer to p. 66) window, you can open neither the Multiplexer Mode nor the Multiplexer Title window. Instead, a message window will appear and ask you to select "Yes". When the Multiplexer board is installed in the unit, select "Yes".

Recorder

This window configures the recorder setting parameters: whether the multiplexer board is installed in the unit, what is the type of the recorder, what is the recorder unit address, and whether the gen-lock is activated.



The Recorder configuration window contains the following elements:

- Built in multiplexer board:** Radio buttons for Yes and No. The No button is selected.
- Recorder Control:** Radio buttons for OFF, HD100, and HD500. The HD500 button is selected. Below this is the text: "Selection of VCR/VTR control is in the OSD menu."
- Unit Address:** A dropdown menu showing "001".
- EXT IN:** A dropdown menu showing "GENLOCK OFF".
- SAVE** and **CANCEL** buttons.

How to Display

To display this window, click on the  (Recorder Mode) button in the main window (p. 65).

Parameters

Built in multiplexer board: Click on the desired radio button.

Yes: Select this when the multiplexer board is installed in the unit. If you select this, you can configure the Multiplexer Mode window. (Refer to p. 82.)

No: Select this when the multiplexer board is not installed in the unit.

The factory default setting is "No".

Recorder Control: Click on the desired radio button to determine the recorder type.

OFF: Select this when no recorder is connected to the unit.

HD100: Select this when a WJ-HD100 Series recorder is connected to the unit.

HD500: Select this when a WJ-HD500 Series recorder is connected to the unit.

The factory default setting is HD500.

• Unit Address

This parameter is configurable only when HD100, HD200 or HD500 is selected in the Recorder window. When OFF is selected there, this parameter is displayed in gray and not configurable. 1 to 99 is selectable. The factory default setting is 1.

Note: If you use a time-lapse VCR for the recorder, do the recorder setting in SETUP MENU. (Refer to RECORDER in p. 60.)

• **EXT IN:** This stands for the setting of the EXT IN connector at the unit's rear panel.

GEN LOCK ON: Select this mode to gen-lock the unit with the recorder.

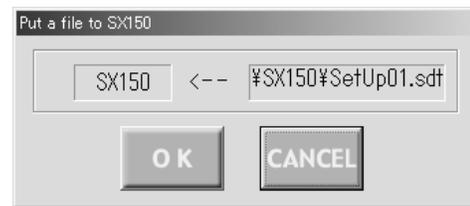
GEN LOCK OFF: Select this mode if the asynchronous unit is connected to the recorder.

Notes:

- If GENLOCK ON is selected, the playback images cannot be displayed on the monitors which are connected to the connectors MONITOR OUT 1 to 4. Confirm the images on those which are connected to the recorder.
- If GENLOCK OFF is selected, the maximum rate recording becomes unavailable for WJ-HD500 Series.
- When a Multiplexer board is installed in the unit, you can select either HD100 (Recorder window) or VCR (610 RECORDER CONTROL in SETUP MENU). (Refer to p. 60 for SETUP MENU.)
- When you select HD100 or VCR, make sure EXT IN is set to GENLOCK OFF.

■ Put a File to SX150

Pressing this button will start the putting of the configuration data from the PC to the unit.



● How to Display

To display this window, click on the  (Put to SX150) button in the main window (p. 65).

● Parameters

The file name of the configuration data appears.

(OK) button

To put the configuration file from the PC to the unit, click on this button.

(Cancel Exit) button

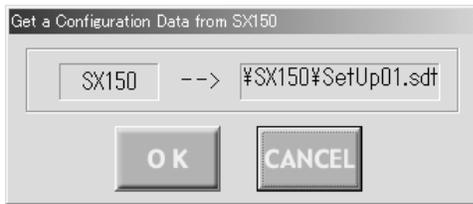
To cancel the putting of the configuration data from the PC to the unit, click on this button.

Notes:

- The setup file has been configured at the factory, and the file names appear on the main window's title bar.
- Put the file from the PC to the unit when the time with no necessary to the continuous system operation, such as after-hours. After the file putting, the system will automatically restart. Then, the system controllers will temporarily log out.
- To change a file, select a file again. (Refer to p. 84 Select Setup Data File.)
- The configuration file cannot be put to the unit while opening SETUP MENU.
- It takes a few seconds to put a file to SX150, and you might assume the PC has been freezing. Wait until the message "Completed!" appears on the screen. If the message "Connection error" appears, the PC is incorrectly connected to the unit. Confirm the settings of WJ-SX150 Administrator Console and retry the file putting.
(Refer to p. 61 SERIAL PORT SPEED and p. 86 Communication Port.)

■ Get a Configuration Data from SX150

Pressing this button will start the getting of the configuration data from the unit to the PC.



● How to Display

To display this window, click on the  (Get from SX150) button in the main window (p. 65).

● Parameters

The file name of the configuration data appears.

(OK) button

To get the configuration data from the unit to the PC, click on this button.

(Cancel Exit) button

To cancel the getting of the configuration data from the unit to the PC, click on this button.

Notes:

- The configuration data getting is also possible during the surveillance, for it will not interfere with the system operation.
- The past data will be overwritten when getting a new configuration data.
- To change the getting directory, select it. (Refer to p. 84 Select Setup Data File.)
- When the file getting has been successfully executed, "Completed!" will appear. If "Connection Error" appears, confirm the connection and the serial port setting of the PC and the unit. (Refer to p. 47 and p. 72.) If "Failed!" appear, retry the file getting.

■ Tour Sequence

This window configures the parameters of tour sequences: the operating camera, dwell time*, preset position** in each step.

Each sequence has up to 16 steps, and up to 16 sequences are configurable.

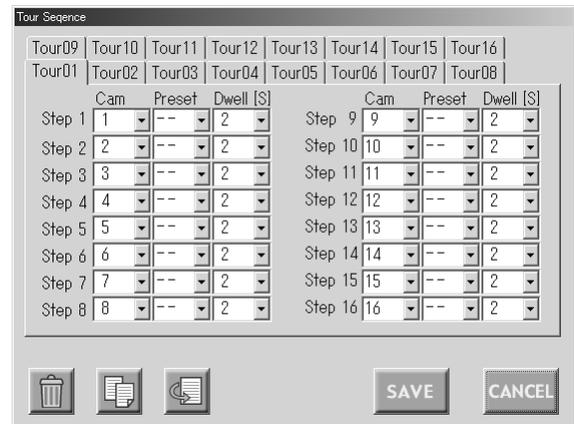
The configuration of a tour sequence can be copied to another one.

* the display time of a camera image

** the panning/tilting position which has been preset in advance

Notes:

- Enter the parameters from Step 1 in a sequential order. If you skip a step, it will result in an error.
- After selecting a camera number, be sure to select the dwell time, too. If you skip either of them, the message requesting the parameter entry will appear.



● How to Display

To display this window, click on the  (Tour Sequence) button in the main window (p. 65). Or click on the  (Tour Sequence) button in the Group Sequence window.

● Parameters

Cam

Selects the operating camera in each step.

The camera is selectable from Camera 1 to 16. After selecting Camera 1 to 16 for Cam, select the time for Dwell. To invalidate a step, select "--" for both of Cam and Dwell.

Preset

Selects the preset position of the operating camera.

The preset position is selectable from Preset 1 to 64.

Note: Refer to p. 93 Program Preset Position for details of how to program preset positions.

Dwell

Selects the dwell time of the operating camera.

The dwell time is selectable from 1 to 30 seconds (by a second). Set "--" for Dwell when you have selected "--" for Cam.

 **(DELETE) button**

Deletes the configuration of all the steps of the selected tour sequence.

 **(COPY) button**

Copies the configuration of all the steps of the selected tour sequence to the another tour.

 **(PASTE) button**

Pastes the cut or copied configuration to another tour sequence.

 **(Save Exit) button**

Saves the configuration and closes the Tour Sequence window.

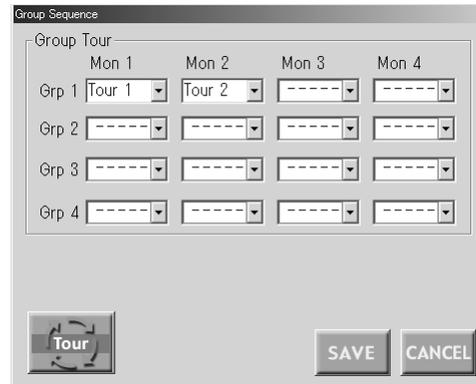
 **(Cancel Exit) button**

Cancel the configuration and closes the Tour Sequence window.

■ Group Sequence

This window configures the parameters of group sequences.

Each group sequence has up to 4 tour sequences which are assigned to the monitors.



● How to Display

To display this window, click on the  (Group Sequence) button in the main window (p. 65).

● Parameters

Mon 1 - Mon 4

Selects the tour sequence displayed on each monitor.

 **(Tour Sequence) button**

Displays the Tour Sequence window for the tour sequence configuration.

 **(Save Exit) button**

Saves the configuration and closes the Group Sequence window.

 **(Cancel Exit) button**

Cancel the configuration and closes the Group Sequence window.

Note: The tour sequences with different total step number and dwell time are not configurable in a group sequence.

■ Timer Event

This window configures the parameters of timer events: the schedule (daily, weekly or monthly) and action.

Up to 30 events are configurable.

tour sequence or spot mode is selectable.

Timer Event

Event 1 | Event 2 | Event 3 | Event 4 | Event 5 | Event 6 | Event 7 | Ever ◀ ▶

Enable

Schedule Mode

Daily Hour Minute

Weekly

Monthly

Action

Tour Sequence Mon 1 Tour 1

Spot Camera

SAVE CANCEL

Spot Camera: Executes the spot mode according to the schedule in the Scheduled Mode group. When you have selected Spot Camera, select the number of monitor (Mon 1 to 4), camera (Cam 1 to 16) and preset position (Pre 1 to 64).

SAVE (Save Exit) button

Saves the configuration and closes the Timer Event window.

CANCEL (Cancel Exit) button

Cancels the configuration and closes the Timer Event window.

Note: In order to stop a scheduled event on a monitor, you need to program another event or manually select another activity. (For example, you need to select a camera or run a tour.)

● How to Display

To display this window, click on the  (Timer Event) button in the main window (p. 65).

● Parameters

• Enable

Checking on the box will enable the configuration.

• Schedule Mode Group

Check on the desired box for the timer event configuration.

Daily: To execute the event at a desired time every day, check on this boxes.

To determine the time, click on the Hour and Minute boxes.

Weekly: To execute the event at a desired time and day(s) of the week, check on this box.

To determine the time, click on the Hour and Minute boxes.

Multiple selection is available for days of the week.

Monthly: To execute the event at a desired time and day(s) of the month, check on this box.

To determine the time, click on the Hour and Minute boxes.

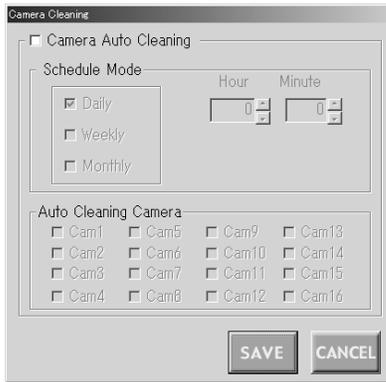
• Action Group

Check on the desired action to execute.

Tour Sequence: Configures and executes the tour sequence according to the schedule in the Scheduled Mode group. When you have selected Tour Sequence, select the number of monitor (Mon 1 to 4) and tour (Tour 1 to 16).

■ Camera Cleaning

This window configures the parameters of camera cleaning function: the schedule (daily, weekly or monthly) and cameras to be cleaned.



● How to Display

To display this window, click on the  (Camera Cleaning) button in the main window (p. 65).

● Parameters

• Camera Auto Cleaning

Checking on the box will enable the configuration.

• Schedule Mode Group

Check on the desired box for the auto cleaning configuration.

Daily: To execute the cleaning at a desired time every day, check on this box.

To determine the time, click on the Hour and Minute boxes.

Weekly: To execute the cleaning at a desired time and day(s) of the week, check on this box.

To determine the time, click on the Hour and Minute boxes.

Multiple selection is available for days of the week.

Monthly: To execute the cleaning at a desired time and day of the month, check on this box.

To determine the time, click on the Hour and Minute boxes.

• Auto Cleaning Camera

Check on the desired camera to execute the cleaning.

(Save Exit) button

Saves the configuration and closes the Camera Cleaning window.

(Cancel Exit) button

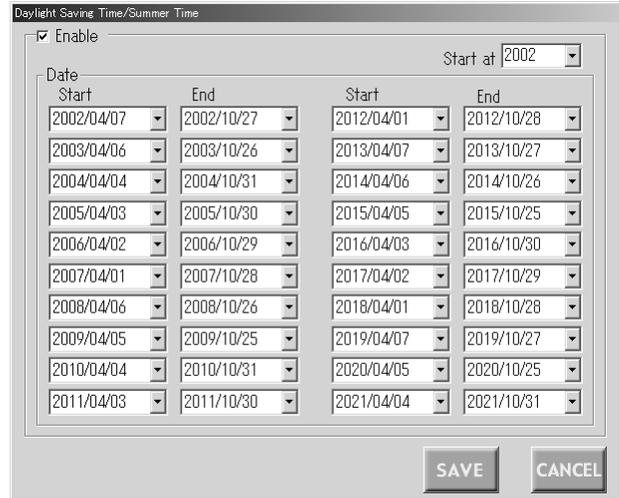
Cancels the configuration and closes the Camera Cleaning window.

Notes:

- When the camera cleaning is active, cleaning will begin from CAM 1 in numerical order.
- Surveillance is impossible during the cleaning.
- The cleaning cannot be stopped after it is started.

■ Daylight Saving Time/Summer Time

This window configures the parameters of daylight saving time (summer time).



● How to Display

To display this window, click on the  (Daylight Saving Time) button in the main window (p. 65).

● Parameters

• Enable

Checking on the box will enable the configuration.

• Date Group

1. Select the start date of the daylight saving time in the Start drop-down menu.
2. Select the end date of the daylight saving time in the End drop-down menu. Select a later date than the Start date. When selecting an earlier date, a message will appear.

Note: When clicking on the ▼ button beside a drop-down menu, a calendar will pop up. To determine the start and end dates, click on the desired date on the calendar. To go to the next or previous month, click on the [◀] or [▶] button and select the dates when the daylight saving time starts and ends.

April, 2012						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	31
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
Today: 1/30/2002						

SAVE (Save Exit) button:

Saves the configuration and closes the Daylight Saving Time window.

CANCEL (Cancel Exit) button:

Cancels the configuration and closes the Daylight Saving Time window.

Alarm Mode

This window configures the operation parameters when an alarm signal is input: an alarm mode, auto reset time and alarm input.

How to Display

To display this window, click on the  (Alarm Mode) button in the main window (p. 65).

Parameters

Alarm Mode

Checking on the box of the desired alarm mode.

OFF: The system operation does not change into any other mode.

Sequence Mode: Camera images are displayed on the monitor in either the spot mode or tour sequence. When more than one alarm are input, the image associated to each alarm is displayed in the sequence mode.

Note: Click on the Dwell drop-down menu to select the dwell time.

Hold Mode: Camera images are displayed on the monitor in either the spot mode or tour sequence. Even more than one alarm are input, the image associated to the initial alarm is continuously displayed.

Notes:

- The alarm mode is activated when alarm input signals are assigned to the same monitor through 420 ALARM EVENT or the Alarm Event (refer to p. 56 or p. 74) window.
- While alarm is activated, you cannot operate the functions related to the multiplexer board.

Alarm Input Group

Select the alarm input to be accepted. Multiple Selection is available.

Camera

This stands for that an alarm input is accepted via the CAMERA IN connectors or the RS-485 ports.

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

REC ONLY: Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

Note: You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

OFF: An alarm input is accepted neither via the CAMERA IN connectors nor the RS-485 ports.

The factory default setting is OFF.

Alarm Port

This stands for that an alarm input is accepted via the ALARM port (25-pin D-sub connector) at the rear panel.

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

REC ONLY: Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

Note: You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

OFF: An alarm input is not accepted via the ALARM port.

The factory default setting is ON.

Serial Port

This stands for that an alarm input is accepted via the SERIAL port.

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

REC ONLY: Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

Note: You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

OFF: An alarm input is not accepted via the SERIAL port.

The factory default setting is ON.

MUX MOTION DET ON: This stands for that the unit's motion detector is activated. When a camera detects the brightness-level change and transmit an alarm signal, the alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

ON: The alarm-associated sequence/spot image is displayed on a monitor, and alarm recording will start (if a recorder is connected to the unit).

REC ONLY: Only an alarm recording will start and monitors will keep displaying the current sequence/spot images.

Note: You cannot recover alarm-related operations from system controllers when REC ONLY is selected.

OFF: An alarm input is not accepted by the motion detector.

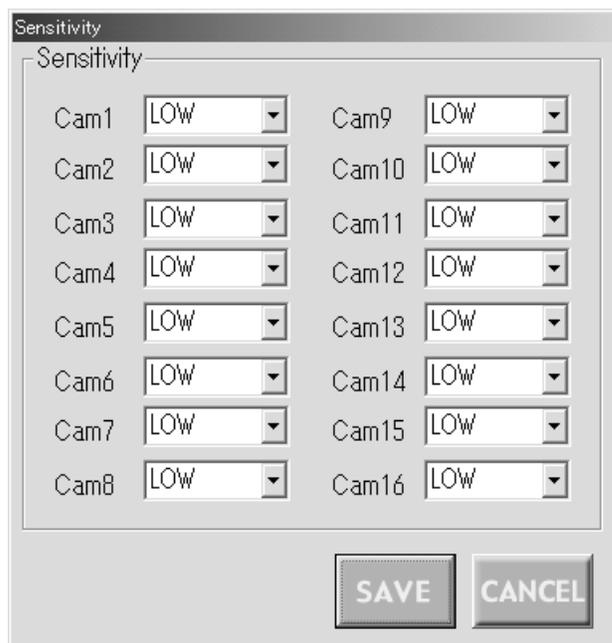
The factory default setting is OFF.

Note: MUX MOTION DET is configurable only when Yes is selected in the Recorder (refer to p. 66) window.

Sensitivity: When you click this button, the Sensitivity window will appear.

Sensitivity

When you press this button, the Sensitivity window will appear. In this window, you can configure the sensitivity level of the multiplexer motion detector on each camera channel.



OFF: The motion detector is not activated on the camera channel.

LOW: The sensitivity level is low.

MID: The sensitivity level is medium.

HIGH: The sensitivity level is high.

The factory default setting of all the channels is LOW.

• **Alarm Reset Time**

Select the time to reset the alarm input.
 The selectable time: OFF (not resetting the alarm), 10, 20, 30, 40, 50, 60, 120 or 180 (seconds)
 The factory default setting is 30 sec.

SAVE (Save Exit) button

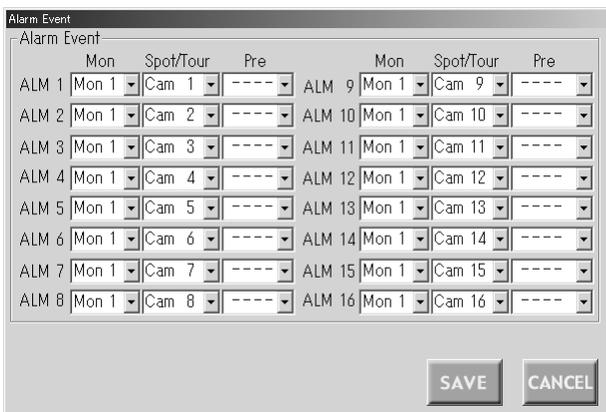
Saves the configuration and closes the Alarm Mode window.

CANCEL (Cancel Exit) button

Cancels the configuration and closes the Alarm Mode window.

■ **Alarm Event**

This window configures the details of operation parameters when an alarm signal is input: the monitor and mode to display the alarm image, and the preset position of the camera. Up to 16 alarm inputs are configurable.



● **How to Display**

To display this window, click on the  (Alarm Event) button in the main window (p. 65).

● **Parameters**

Mon (Monitor)

Select the monitor to display the alarm image.

Spot/Tour

Select the spot camera number or the tour sequence number.

Cam 1 to 16: To display a spot picture, select a camera number.

Tour 1 to 16: To execute a tour sequence, select a tour number.

Pre (Preset Position Number)

Select the preset position of the camera when selecting the spot camera number in Spot/Tour. Position 1 to 64 is selectable for Pre. When the camera is not equipped with the preset position function, select "--".

Notes:

- If having selected a tour sequence for a monitor, another tour number or spot camera will not be available when selecting the monitor for another alarm event. That will result in an error.
- In the factory default setting, Tour 1 to 4 is selectable. To select Tour 5 to 16, you need to configure the tour sequences in the Tour Sequence window. (Refer to p. 68.)

SAVE (Save Exit) button

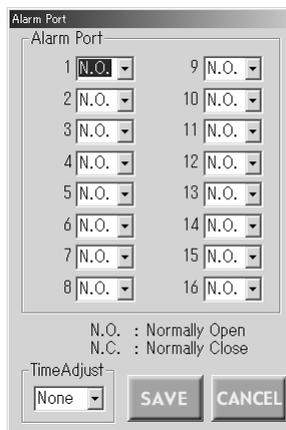
Saves the configuration and closes the Alarm Event window.

CANCEL (Cancel Exit) button

Cancels the configuration and closes the Alarm Event window.

■ **Alarm Port**

This window configures the parameters of alarm inputs.



● **How to Display**

To display this window, click on the  (Alarm Port) button in the main window (p. 65).

● **Parameters**

• **Alarm Port Group**

Select the desired alarm input parameter in each alarm port's drop-down menu.

N.O. : Normally Open

N.C. : Normally Close

• **Time Adjust Box**

Select the alarm port to assign to the time adjustment. When not assign any port to time adjustment, select None.

SAVE (Save Exit) button

Saves the configuration and closes the Alarm Input window.

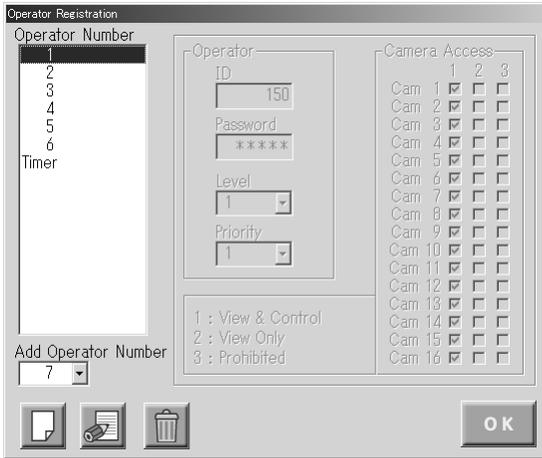
CANCEL (Cancel Exit) button

Cancels the configuration and closes the Alarm Input window.

■ Operator Registration

This window configures the parameters of each operator: the ID, password, level, priority and camera access.

Note: Before configuring this window, check on the restrict level of each operation in the Level Table window.



● How to Display

To display this window, click on the  (Operator Registration) button in the main window (p. 65).

● Parameters

• Operator Number

This box displays a list of registered operators.

1-6: These are operator numbers who are registered as the factory default setting. Operator Number 1 cannot be deleted.

Timer: This operator is used for the priority change of a timer event. When the timer event's priority is higher than that of an operator, the event is valid. When an operator's priority is higher than that of a timer event, the event is invalid. This operator cannot be deleted.

• Add Operator Number

This drop-down menu is used for the new operator number selection.

• Operator Group

This group configures each operator's password, level and priority.

ID: Enter an operator's ID. From 1 to 99999 are available.

Password: Enter a password. From 1 to 99999 are available.

Level: Select 1, 2 or 3.

Priority: Select the operator's priority from 1 (highest) to 16 (lowest).

• Camera Access Group

This group configures the camera operation coverage of each operator.

Click on each camera's checkboxes and determine the available operation.

1 (View & Control): The operator can display the camera image on the monitor and control panning/tilting.

2 (View Only): The operator can display the camera image on the monitor, but cannot control the panning/tilting.

3 (Prohibited): The operator can neither display the camera image on the monitor nor control the panning/tilting.

(Add) button

Adds a new operator to WJ-SX150 Administrator Console.

(Edit) button

The registered parameters become editable by clicking on this button after selecting the operator number.

(Delete) button

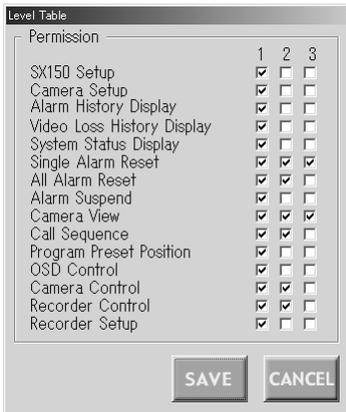
Deletes an operator from WJ-SX150 Administrator Console after you select the operator.

(OK) button

Saves the configuration and closes the Operator Registration window.

■ Level Table

This window configures the restrict level of each operation. The restrict level is classified in Level 1, 2, and 3.



● How to Display

To display this window, click on the  (Level Table) button in the main window (p. 65).

● Parameters

• Permission

Click on each checkbox to classify the following operations by three levels.

SX150 Setup: Setting up this matrix switcher system

Camera Setup: Setting up the cameras

Alarm History Display: Displaying the alarm history

Video Loss History Display: Displaying the video loss history

System Status Display: Displaying the system status

Single Alarm Reset: Resetting an alarm

All Alarm Reset: Resetting all the alarms

Alarm Suspend: Suspending an alarm

Camera View: Selecting a camera

Call Sequence: Activating a tour or group sequence

Program Preset Position: Registering a camera's pre-set position

OSD Control: Displaying SETUP MENU

Camera Control: Controlling a camera

Recorder Control: Controlling the recorder

Recorder Setup: Displaying the recorder's setup menu

(Save Exit) button:

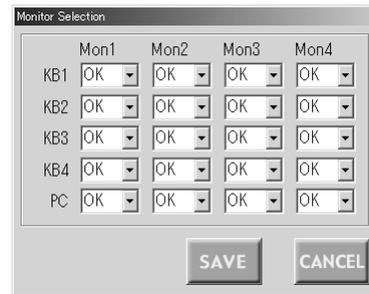
Saves the configuration and closes the Level Table window.

(EXIT) button

Cancels the configuration and closes the Level Table window.

■ Monitor Selection

This window determines whether a system controller or PC can select a monitor.



● How to Display

To display this window, click on the  (Monitor Selection) button in the main window (p. 65).

● Parameters

Select OK to permit each controller and the PC to control Monitor 1 to 4.

Select NG to restrict each controller and the PC to control Monitor 1 to 4.

(Save Exit) button

Saves the configuration and closes the Monitor Select window.

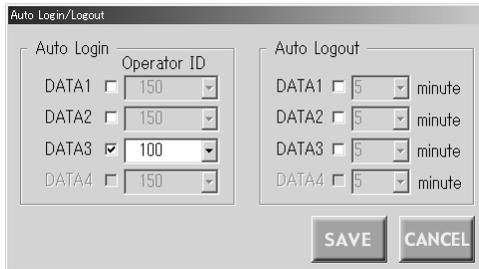
(Cancel Exit) button

Cancels the configuration and closes the Monitor Select window.

■ Auto Login/Logout (Auto Log-in/Log-out)

This window configures the auto log-in/log-out parameter of each data port.

An operator is selectable for auto log-in function.



The log-out time is selectable for auto log-out function.

● How to Display

To display this window, click on the  (Auto Login/Logout) button in the main window (p. 65).

● Parameters

• Auto Login Box

Click on the checkboxes DATA 1 to 4 to select an operator for auto log-in. Then, select an operator ID. It will be the log-in ID of the system controller connected to the data port.

• Auto Logout Box

Click on the checkbox of the data port connecting the system controller for auto log-out. Then, select the elapsed time for auto log-out.

(Save Exit) button

Saves the configuration and closes the Auto Login/Logout window.

(Cancel Exit) button

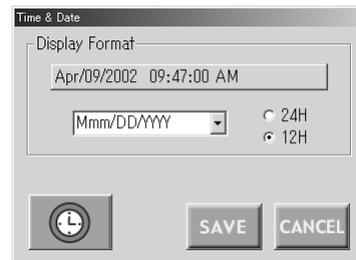
Cancels the configuration and closes the Auto Login/Logout window.

Notes:

- Both of auto log-in and auto log-out cannot be assigned to the same data port. Either of them is selectable.
- Data ports are usable for RS-485 camera connections. (Refer to p. 38.) However, when an RS-485 camera is connected to a data port, its port number is displayed in gray and auto log-in/log-out is not assignable. (Refer to p. 81 for details on data port setting.)
- When PSD is set for DATA 4 in the Data Port (refer to p. 81) window, its port number is displayed in gray and auto log-in/log-out is not assignable. (The factory default setting of the DATA 4 is PSD.)

■ Time & Date

This window configures the unit's clock display pattern. The unit's clock time is also adjustable.



This picture is the example for U. S. model.

Out of the U. S., the display pattern is Date/Month/Year.

● How to Display

To display this window, click on the  (Clock) button in the main window (p. 65).

● Parameters

• Display Format

The current date & time is displayed.

Click on the drop-down menu and select the display pattern format.

The date display is selectable from 5 patterns.

The time display is selectable from 2 patterns (12H or 24H).

The following are the display patterns:

DD/MM/YYYY...21/08/2001

MM/DD/YYYY...08/21/2001

DD/Mmm/YYYY...21/Aug/2001

YYYY/MM/DD...2001/08/21

Mmm/DD/YYYY...Aug/21/2001

The factory default setting is Mmm/DD/YYYY pattern.

(Out of the U. S., the factory default setting is

DD/MM/YYY.)

(Clock) button

Displays the Clock window.

(Save Exit) button

Saves the configuration and closes the Time & Date, window.

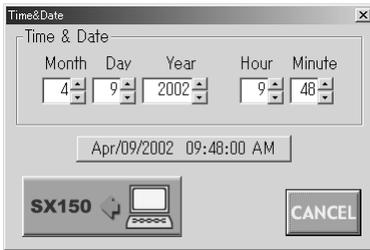
(Cancel Exit) button

Cancels the configuration and closes the Clock Disp window.

Note: The display pattern will be updated when the setting file has been put from the PC to the unit.

● Clock

This window configures the unit's clock. The pattern of the Time & Date box depends on the setting through the Time & Date window.



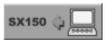
This picture is the example for U. S. model.

• How to display

To display this window, click on the  (Clock) button in the Time & Date window.

• Parameters

Time & Date Box: To adjust the clock, click on the ▼ or ▲ buttons of Year, Month, Day, Hour and/or Minute



(Put to SX150) button: Changes the unit's clock time into the one which has been configured in this window.

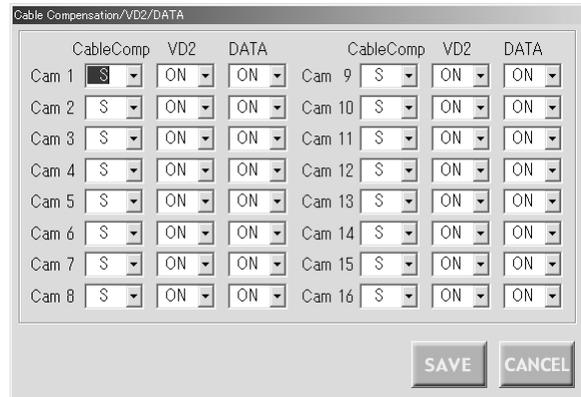


(Cancel Exit) button: Cancels the configuration and closes the Clock window.

Note: The clock display pattern is not updated by clicking the  (Put to SX150) button in this window. The setup file update will be necessary. (Refer to p. 67 Put a File to SX150.)

■ Cable Compensation/VD2/DATA

This window configures the following parameters of each camera: the cable length for transmission loss compensation and whether to send the VD2 timing pulse or control data with the camera output signals.



● How to Display

To display this window, click on the  (Cable Compensation/VD2) button in the main window (p. 65).

● Parameters

Cable Comp: Select the cable length for each camera.

S: Less than 400 m (1 300 ft)

M: 400 m (1 300 ft) to 700 m (2 300 ft)

L: 700 m (2 300 ft) to 900 m (3 000 ft)

VD2: To send the VD2 timing pulse with the camera output signal, select ON.

Not send the VD2 timing pulse with the camera output signal, select OFF.

DATA: To send the control data with the camera output signal, select ON.

Not send the control data with the camera output signal, select OFF.

■ Camera Title

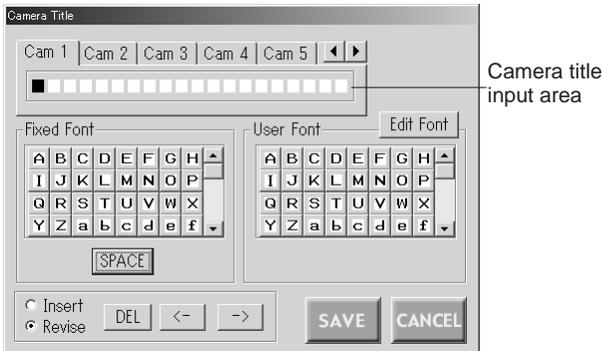
This window configures the title for each camera.

Up to 20 characters (camera title + alphanumeric characters) are available for the title.

WJ-SX150 Administrator Console has the following built-in characters:

ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
0 1 2 3 4 5 6 7 8 9 ! " # \$ % & ' () * + , - . / : ;
< - > ? _ Ä Ü Ö Æ Ñ Â Ø ä ü ö æ ñ ð Á Ç É Ì Ò Ù ß à á â ç è é ê ë ì í î ï ð ó ô ú ú

In addition, symbols, special characters and original characters are editable in the bitmap font.



● How to Display

To display this window, click on the  (Camera Title) button in the main window (p. 65).

● Parameters

• Fixed Font Box

The fixed-font characters are displayed here.

SPACE: To make a space in the text-box area, click on this button.

• User Font Box

The character displayed here is editable by users.

Edit Font: To display the Edit Font window, click on this button.

• Insert / Revise Radio button

To insert a character in the text-box area, click on the Insert button. To revise the character there, click on the Revise button.

(Save Exit) button

Saves the configuration and closes the Camera Title window.

Note: Be sure to click on this button after editing user font characters. Otherwise, the edited characters will be canceled.

(Cancel Exit) button

Cancels the configuration and closes the Camera Title window.

● Edit Camera Title

1. Click on the tab of the desired camera to edit its camera title. The cursor blinks at the first block in the text box.

Note: When the desired camera's tab does not appear, click on the buttons ◀ or ▶ beside the tabs.

2. Click on the <- or -> button to move the cursor to the desired position.

3. Click on the desired character button in the Fixed Font or User Font box. The character will be entered in the text box.

4. Repeat steps 2 and 3 to enter the camera title.

5. After the entry, click on the  (Save Exit) button. The camera title will be saved.

To Enter a Space in the Text Box

1. Click on the <- or -> button to move the cursor to the desired position.

2. Click on the SPACE button.

To Delete a Character in the Text Box

1. Click on the Revise button.

2. Click on the <- or -> button and move the cursor to the character for deletion.

3. Click on the DEL button.

The character will be deleted from the text box.

To Revise a Character in the Text Box

1. Click on the Revise button.

2. Click on the <- or -> button and move the cursor to the character for revision.

3. Click on the desired character.

The character will be entered in the text box.

To Insert a Character in the Text Box

1. Click on the Insert button.

2. Click on the <- or -> button and move the cursor to the block to enter a character.

3. Click on the SPACE button to enter a space.

4. Click on the Revise button.

5. Click on the desired character in the text box.

The character will be inserted in the text box.

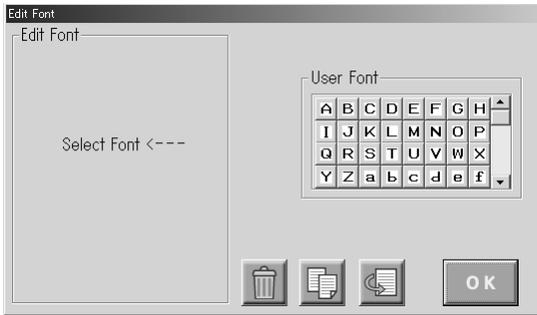
To Cancel the Entry

Click on the  (Cancel Exit) button.

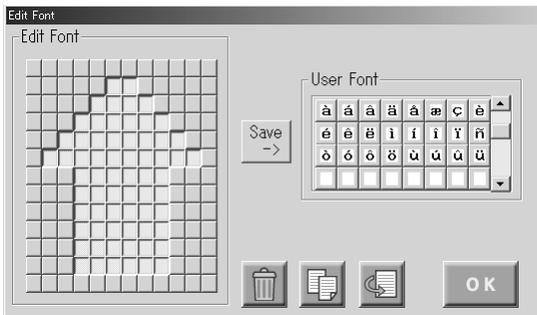
The entry will be canceled and the Camera Title window will close.

● Edit Font Window

The Window Soon after Opening



The Window during the Edit



Note: The new character has not been saved in the configuration data at this point. After closing the Edit Font window, be sure to return to the Camera Title window and click on the **SAVE** (Save Exit) button.

• To Copy a Character

1. Click on the desired character in the User Font box.
2. Click on the Copy button.
3. Click on the blank in the User Font box to copy the character.
4. Click the Paste button.

• To Delete a Character

1. Click on the desired character in the User Font box.
2. Click on the Delete button.
3. Click on the Save -> button.

• How to Display

To display this window, click on the Edit Font button in the Camera title window.

• Parameters

User Font Box: The registered user font characters are displayed here. Up to 320 characters (20 for each camera x 16) are registerable.

Edit Font Box: The selected user font characters are displayed here in 12 x 13 dots.

 **(Delete) button:** Deletes an user font character.

1. Click on the desired character in the User Font box.
2. Click on the Delete button.

 **(Copy) button** /  **(Past) button:** A user font character can be copied by clicking these buttons.

Save -> button: The edited or deleted character is registered in the User Font box.

 **(OK) button:** Closes the Edit Font window.

• To Edit a User Font Character

1. Click on the desired characters in the User Font box. When making a new character, click on a blank. The selected user font character are displayed here in 12 x 13 dots.
2. Click on  or  to make a character.  and  will appear alternately by clicking.  will change into black after the character is registered in the User Font box.
3. When finishing the edit, click on the Save -> button. The edited character will be registered in the User Font box.

■ Data Port

This window configures the parameters of each data port (RS485, DATA 1 to 4 and DATA HDR port): the protocol, the baud rate (communication speed), and the connected cameras.

Fixed Common Parameter
Data : 8bit Parity : None Stop : 1bit

● How to Display

To display this window, click on the  (Data Port) button in the main window (p. 65).

● Parameters

• RS-485 Port Group

Protocol: Select RS485 when an RS-485 camera is connected to the data port.

Select CU360C when the system controller is connected to the data port.

Select PSD when the system controller is connected to the DATA 4 port via the PS·Data protocol. PS·Data mode will appear in the window.

Note: The baud rate of DATA HDR is the same as that of PSD. When you select PSD for DATA 4, DATA HDR and its baud rate are displayed in gray and not configurable. When you select CU360C for DATA 4, DATA HDR and its baud rate are configurable.

Baud Rate: Select the desired baud rate (communication speed). 4800, 9600 or 19200 bps is selectable.

RS485 Camera Daisy (RS-485 Camera Daisy): Select the number(s) of the camera(s) connected to the RS-485 daisy chain.

Data 1 to 3 are connectable to either of cameras and system controllers.

When connecting cameras to these ports, select the connected camera number(s).

PS·Data mode: This stands for the PS·Data parameters of the DATA 4 port.

Logout Time: Select the desired operable time before logout. OFF, 10, 20, 30, 60, 90 or 120 sec is available.

The factory default setting is 30 sec.

Alarm Data: Select the desired time to accept an alarm input signal. OFF, 0, 1 or 5 sec is available.

The factory default setting is 1 sec.

Wait Time: Select the desired wait time to transmit an alarm output signal. OFF, 100msec, 200m sec, 400m sec or 1 sec is available.

The factory default setting is OFF.

Group Address: This parameter is only for confirmation. Leave as it is.

• Fixed Common Parameter Group

The data bit (8 bit), parity (none), and stop bit (1 bit) are displayed. These parameters are fixed.

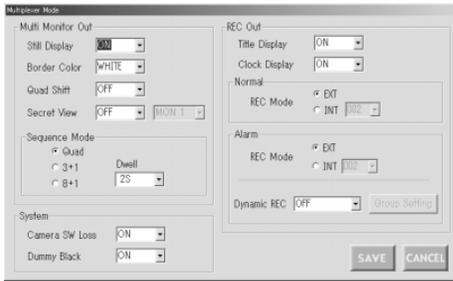
(Save Exit) button

Saves the configuration and closes the Data Port window.

(Cancel Exit) button

Cancels the configuration and closes the Data Port window.

■ Multiplexer Mode



● How to Display

Note: This window can be displayed only when “Yes” is selected in the Recorder window. (Refer to p. 66.)

● Parameters

To display this window, click on the  (Multiplexer Mode) button in the main window (p. 65.)

• Multi Monitor Out Group

Still Display: Select the desired setting by clicking on the drop-down menu.

ON: Still picture is available during the multiscreen display.

OFF: Still picture is not available during the multiscreen display.

The factory default setting is ON.

Border Color: Select the desired setting by clicking on the drop-down menu. This setting will determine the color of the border which separates each multi-screen segment.

WHITE: The border will be displayed in white.

GRAY: The border will be displayed in gray.

BLACK: The border will be displayed in black.

OFF: No border will be displayed.

The factory default setting is WHITE.

Quad Shift: Select the desired setting by clicking on the drop-down menu.

ON: Camera images are displayed in 4 multiscreen segments (quad) and switched as follows:

4A = Page 1 of the quad (Camera 1, 2, 3 and 4)

4B = Page 2 of the quad (Camera 5, 6, 7 and 8)

4C = Page 3 of the quad (Camera 9, 10, 11 and 12)

4D = Page 4 of the quad (Camera 13, 14, 15 and 16)

OFF: Quad is unavailable.

The factory default setting is OFF.

Secret View: Select the desired setting by clicking on the drop-down menu.

ON: The drop-down menu becomes also active so that you can select the desired monitor among MON 1 to 4. For example, when you select MON 1, other operators, whose priority is lower than you, cannot view the monitor (secret view).

OFF: Secret view function is unavailable.

The factory default setting is OFF.

Sequence Mode: Select the sequence type by clicking on the radio button.

Quad: Multiplexer sequence is activated. The monitor display will be changed as 4A → 4B → 4C → 4D.

3+1: Images are displayed in 4 multiscreens, and the images of Camera 4 to 16 are displayed in the sequence mode, at the right bottom of the monitor. The images of Camera 1 to 3 are fixed. (Refer to the left-side illustration in p. 19.)

8+1: Images are displayed in 9 multiscreens, and the images of Camera 9 to 16 are displayed in the sequence mode, at the right bottom of the monitor. The images of Camera 1 to 8 are fixed. (Refer to the right-side illustration in p. 19.)

The factory default setting is Quad.

Dwell: The dwell time of the selected sequence mode is selectable. 2S to 30S is available.

The factory default setting is 2S.

• REC OUT Group

Title Display: Select the desired setting by clicking on the drop-down menu.

ON: The camera title is displayed on the recorded image.

OFF: The camera title is not displayed on the recorded image.

The factory default setting is ON.

Clock Display: Select the desired setting by clicking on the drop-down menu.

ON: The date and time are displayed on the recorded image.

OFF: The date and time are not displayed on the recorded image.

The factory default setting is ON.

Normal Group

REC Mode: Select the desired setting by clicking on the radio button.

EXT: Select this to gen-lock the unit during the normal recording.

INT: Select this if the asynchronous unit is connected to the unit. When it is activated, the drop-down menu becomes also active so that you can select the desired normal recording rate. 002, 004 to 255 (field) are selectable.

The factory default setting is EXT.

Alarm Group

REC Mode: Select the desired setting by clicking on the radio button.

EXT: Select this to gen-lock the unit during the alarm recording.

INT: Select this if the asynchronous unit is connected to the unit. When it is activated, the drop-down menu becomes also active so that you can select the desired normal recording rate. 002, 004 to 128 (field) are selectable.

The factory default setting is EXT.

DYNAMIC REC: Select the desired setting by clicking on the drop-down menu.

ALM-PRI: Select this to give recording priority to the camera channel with the alarm input.

ALM-ONLY: Select this to record the images from the alarm-associated camera channel.

GROUP: Select this to give recording priority to a group of up to 4 camera channels associated to the alarm input. When you select this, the Group Setting button becomes active. By pressing the button, the Mux Alarm Group window will be displayed so that you can configure the ALM 1 to 16 parameters. (Refer to Mux Alarm Group.)

OFF: Select this to deactivate the alarm priority mode.

The factory default setting is OFF.

• System Group

Camera SW Loss: Select the desired setting by clicking on the drop-down menu.

ON: "CAM SW LOSS" will blink on the associated monitor when loss of the camera switching pulse is detected.

OFF: "CAM SW LOSS will not appear on the monitor.

The factory default setting is ON.

Dummy Black: Select the desired setting by clicking on the drop-down menu.

ON: The black image will be displayed for a camera channel that is not connected to the camera.

OFF: The camera channel will be skipped in the sequence/spot mode.

The factory default setting is ON.

SAVE (Save Exit) button

Saves the configuration and closes the Multiplexer Mode window.

CANCEL (Cancel Exit) button

Cancels the configuration and closes the Multiplexer Mode window.

● Mux Alarm Group

	Cam	Cam	Cam	Cam
ALM 1	1	--	--	--
ALM 2	2	--	--	--
ALM 3	3	--	--	--
ALM 4	4	--	--	--
ALM 5	5	--	--	--
ALM 6	6	--	--	--
ALM 7	7	--	--	--
ALM 8	8	--	--	--

This is a submenu of the Multiplexer window. In this window, up to 4 cameras are given recording priority for each alarm input.

- Click a drop-down menu to assign the camera numbers (1 to 16) to each alarm input (ALM 1 to 16). The factory default setting is same as the illustration.
- To configure ALM 9 to 16, click on the ALM 9 – 16 tab.

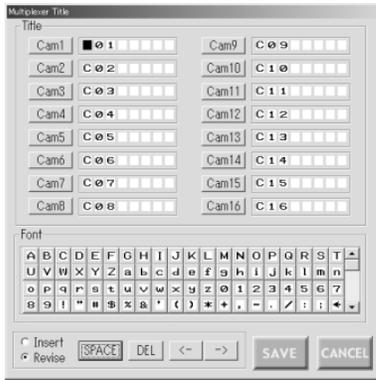
SAVE (Save Exit) button

Saves the configuration and closes the FS Board Alarm Group window.

CANCEL (Cancel Exit) button

Cancels the configuration and closes the FS Board Alarm Group window.

● Multiplexer Title



● How to Display

To display this window, click on the  (Multiplexer Title) button in the main window (p. 65.)

● How to Display

Note: This window can be displayed only when "Yes" is selected in the Recorder window. (Refer to p. 66.)

● Parameters

The factory default settings are same as the illustration. (The text box covered with the cursor is "C".)

To edit the desired camera's title, click on the associated button (Cam 1 to Cam 16).

The subsequent editing procedure is the same as Camera Title. (Refer to p.79.)

Notes:

The characters available here are the following:

ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
0 1 2 3 4 5 6 7 8 9 ! " # \$ % & ' () * + , - . : ; = Æ ? o Ä Ü Ö Æ Ñ Ñ Ø ä ü ö æ ñ ð

- Up to 8 alphanumeric characters are available for the multiplexer board camera title.
- You cannot edit a user font character.

(Save Exit) button

Saves the configuration and closes the Multiplexer Board Camera Title window.

(Cancel Exit) button

Cancels the configuration and closes the Multiplexer Board Camera Title window.

■ Select Setup Data File

The setup file is selectable by pressing this button.

For example, this function will be used when making a new setup file with the factory default setting or configuring an existing setup file.

Refer to the operating instructions of Windows® for details of how to copy a data.

● How to Display

To display this window, click on the  (File Open) button in the main window (p. 65).

● Parameters

The location, name and type of the setup file appear in this window.

File Name Input Area: Displays the selected file's name. A new file (a setup file with the factory default setting) will be made when entering a new name.

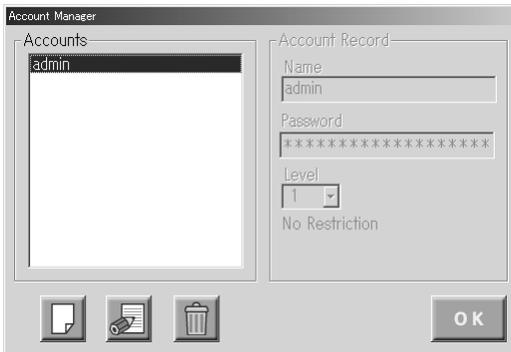
Open button: Opens the selected file.

Cancel button: Cancels the operation and closes the Select Setup Data File dialog box.

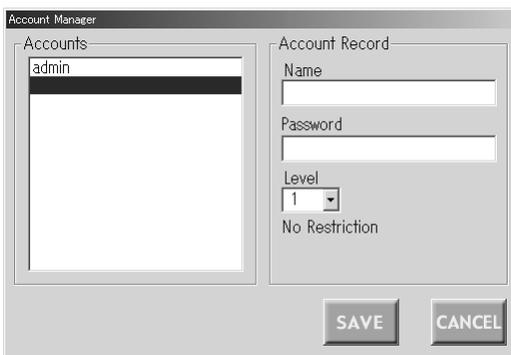
Account Manager

This window configures the parameters of the operators who can control WJ-SX150 Administrator Console: the registration, edit and deletion of an operator.

The window soon after opening



The window during the edit



How to Display

To display this window, click on the  (Account Manager) button in the main window (p. 65).

Note: Register at least one operator with level 1. If there is no level 1 operator, the configuration of WJ-SX150 Administrator Console will become impossible.

Parameters

Accounts Group

The registered operator names appears. To display the operator information in the Account Record group, click on the name.

You can configure up to 16 account records.

Account Record Group

Name: The operator name is displayed.

Password: The password is displayed as "*****". The entered password is displayed here during the edit.

Level: Select the operator level.

(OK) button

Closes the Account Manager window.

(Add Account) button

To register a new operator, click on this button. The Registration window will appear.

 (EDIT) button: To configure the operator information, click on this button.

(DELETE) button

To delete the operator selected in the Accounts group, click on this button.

(Save Exit) button

Saves the configuration and closes the Account Manager window.

(Cancel Exit) button

Cancels the configuration and closes the Account Manager window.

Edit Account Manager

Add a Registration Operator

1. Click on the  button.
2. Enter the name in the Name box and the password in the Password box.
Name: Up to 20 alphanumeric characters
Password: Up to 20 alphanumeric characters
3. Click on the ▼ button to select the level.
4. Click on the  (Save exit) button.

The configuration will be saved and the Registration window will close.

To cancel the configuration, click on the  (Cancel exit) button.

Note: You can register up to 16 accounts (operators).

Edit a Registration Operator

1. Click on the registration operator's name in the Accounts group.
2. Click on the  (EDIT) button.
3. Edit the desired parameters.
4. Click on the  (Save exit) button.

The configuration will be saved and the Registration window will close.

To cancel the configuration, click on the  (Cancel exit) button.

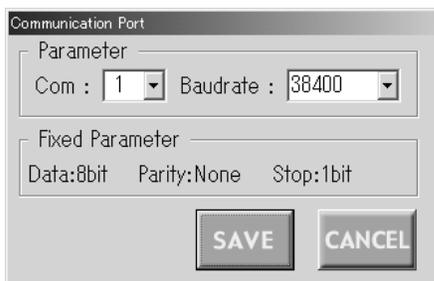
Delete a Registration Operator

1. Click on the registration operator's name in the Accounts group.
2. Click on the  (Delete) button.
3. Click on the  (Save exit) button.

Note: If deleting all level 1 operators, the configuration of WJ-SX150 Administrator Console will become impossible.

■ Communication Port

This window configures the PC's usable communication port number and its baud rate (communication speed).



● How to Display

To display this window, click on the  (Communication port) button in the main window (p. 65).

● Parameters

• Parameter Group

Com: Select the PC's communication port for the connection to the unit.

Baud Rate: Select the desired baud rate (communication speed). 4800, 9600, 19200 or 38400 bps is selectable.

The factory default setting is 38400 bps.

• Fixed Parameter Group

The data bit (8 bit), parity (none), and stop bit (1 bit) are displayed.

Note: These parameters are fixed.

(Save Exit) button

Saves the configuration and closes the Communication Port window.

(Cancel Exit) button

Cancel the configuration and closes the Communication Port window.

OPERATING PROCEDURES (TERMINAL MODE)

LOG-IN AND LOG-OUT

Before starting the following procedures, all system components must be turned on.

The following procedures are applicable when the system controller is connected to the unit.

■ Log-in

This operation is skipped when the auto log-in is set to ON. (Refer to p. 89.)

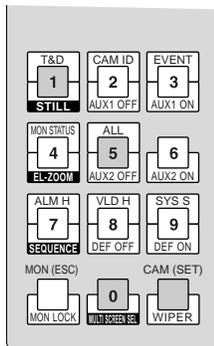
1. Turn on the power switches of all system components.
The OPERATE indicator will light up.
2. To turn on the power of the system controller, connect the AC adapter to the AC outlet.
The LINK indicator lights up and "NO USER" appears on the LED display of the system controller.



3. To select your registered operator ID number (1 to 16, up to 2 digits), press the numeric buttons, then press the CAM (SET) button.

The underline appears on the LED display of the controller.

The factory default setting is 150.



4. To select your registered password (up to 5 digits), press the numeric buttons, then press the CAM (SET) button.

The factory default setting is 150.

If the operator ID and password are correct, "READY" will appear on the LED display.



Note: If an operator ID or password error occurs, the PROHIBITED indicator on the controller will blink and "NO ACC" will blink on the LED display for about 3 seconds. Then "NO USER" appears on the LED display. Return to step 3 and select your operator ID.



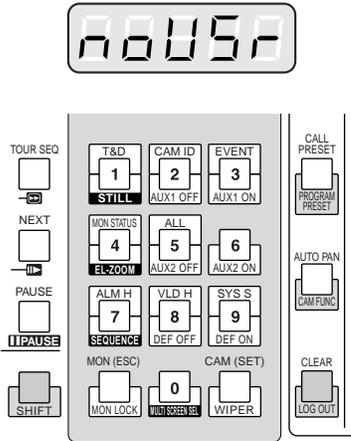
Note: If the auto log-in is set to ON, any operator can login automatically. After the controller is turned on, "AUTO" appears on the LED display for approximately 2 seconds, then "READY" automatically appears.

■ Log-out

This operation is skipped when the auto log-out is set to ON.

This function is used when an operator leaves the controller or no longer requires access to the system.

1. To logout from the system press the CLEAR button while holding down the SHIFT button.
"NO USER" appears on the LED display of the controller.



Notes:

- If you want to save the power consumption, disconnect the PC plug from the controller, and remove the AC adapter from the AC outlet.
- If the auto log-out is set to ON, any operator can logout automatically if no operation takes place for a specific time. "NO USER" automatically appears on the LED display.
- The time to logout is configurable through WJ-SX150 Administrator Console. (Refer to p. 77 Auto Login/Logout.)

■ Auto Log-in

If the auto log-in is set to ON, any operator can login automatically. After the controller is turned on, "AUTO" appears on the LED display for approximately 2 seconds, then "READY" automatically appears.

Auto log-in is configurable through WJ-SX150 Administrator Console. (Refer to p. 77 Auto Login/Logout.)



■ Auto Log-out

If the auto log-out is set to ON and no operation takes place for a specific time, any operator can logout automatically. "NO USER" automatically appears on the LED display.



Auto log-out and the time to logout are configurable through WJ-SX150 Administrator Console. (Refer to p. 77 Auto Login/ Logout.)

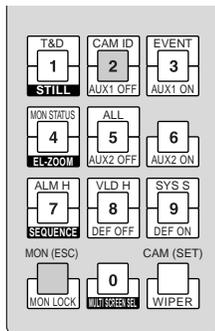
MONITOR SELECTION AND CAMERA SELECTION

After the log-in procedure, the following operations are available to control the system.

The operation begins with selecting a monitor, then the selected camera appears the active monitor.

■ Monitor Selection

1. To select the desired monitor number (1 to 4), press the numeric button.
2. Press the MON (ESC) button to execute the selection. The MONITOR indicator on the controller will light up and the selected monitor number will appear on the LED display of the controller.



3. If the selected monitor number is not valid, the PROHIBITED indicator lights up and the number on the LED display will blink for approximately 3 seconds. Return to step 1 and select a new monitor number.

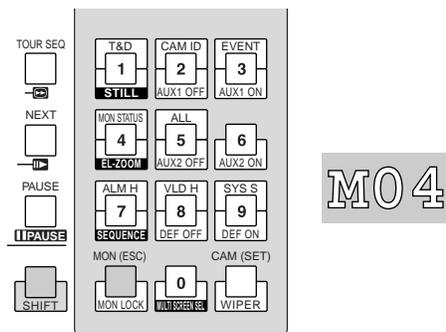
Note: The PROHIBITED indicator will blink if an operator with higher priority is controlling the monitor. Control of the same monitor is denied to an operator with lower priority.

■ Priority Lock

● Applying Priority Lock

1. Select the desired monitor. (Refer to Monitor Selection).
2. Press the MON (ESC) button while holding down the SHIFT button to toggle the priority lock mode on and off on the active monitor. If the priority lock mode is selected, the monitor number will inversely appear on the active monitor as shown in the figure.

Note: This function will prevent operators with lower priority from gaining control of a monitor. However, higher or equal priority operators may still gain control of the monitor.



● Releasing Priority Lock

1. Select the desired monitor. (Refer to Monitor Selection).
2. Press the MON (ESC) button while holding down the SHIFT button to release the priority lock mode. The monitor number returns to the normal display on the active monitor.

■ Camera Selection

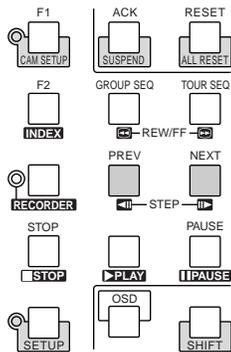
1. Select the desired monitor. (Refer to p. 90 Monitor Selection.)
2. Press the numeric buttons to select the desired camera number (1 to 16).
3. Press the CAM (SET) button.

The selected camera's image will appear on the active monitor. The CAMERA indicator will light up and the selected camera number will appear on the LED display on the controller.



Note: If you select a wrong number, press the CLEAR button to clear the input.

4. If the selected camera number is not valid, the PROHIBITED indicator and the number on the LED display will blink for about 3 seconds.
Return to step 2 and select a new camera number.
5. To replace the currently selected camera with the next higher-numbered camera, press the NEXT button.
6. To replace the currently selected camera with the next lower-numbered camera, press the PREV button.



Note: The PROHIBITED indicator will light up, if the camera is selected by an operator with higher priority. Control of the same camera is denied to an operator with lower priority.

CAMERA CONTROL

Buttons and control for cameras or camera site accessories are located on the right side of the front panel of the system controller.

Included are zoom control, focus control, iris control, preset and pan/tilt controls.

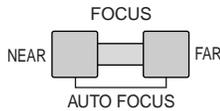
Normally, combination cameras equipped with the specific feature or a WV-RC100 or WV-RC150 Receiver are required to utilize these functions.

Note: Refer to the cameras' operating instructions whether to confirm that each function is available.

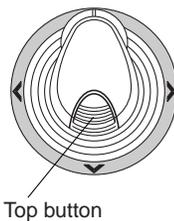
■ Lens Control

This function is available when specified lens, with motorized zoom/ focus functions, is mounted on the camera, and the lens selection (DC/VIDEO) on the camera is set to DC.

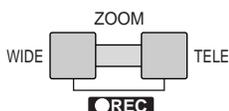
1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the FOCUS NEAR/FAR buttons while watching the monitor. The lens focus is adjusted to obtain a sharply focused image.
To set the lens focus automatically, press these buttons simultaneously.



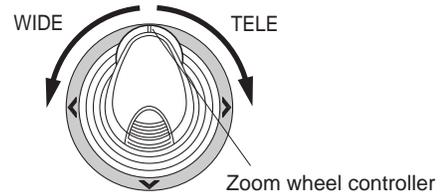
Pressing the top button of WV-CU360CJ can also set the lens focus automatically.



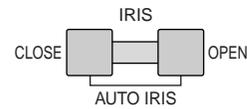
3. Press the ZOOM WIDE/TELE buttons while watching the monitor. The lens iris is adjusted to obtain the desired image.
Press the TELE button to bring an object optically closer. Press the WIDE button to widen the scene optically.



Moving the zoom wheel controller of WV-CU360CJ can also adjust the lens zoom.



4. Press the IRIS CLOSE/OPEN buttons to close/open the lens iris. The lens iris is adjusted by these buttons to obtain the proper image exposure.

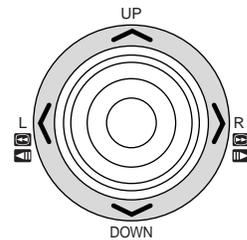


To reset to the factory default setting, press these buttons simultaneously.

■ Pan/Tilt Control

● Manual Operation

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Move the joystick to move the pan/tilt head towards the desired direction.



● Auto Panning

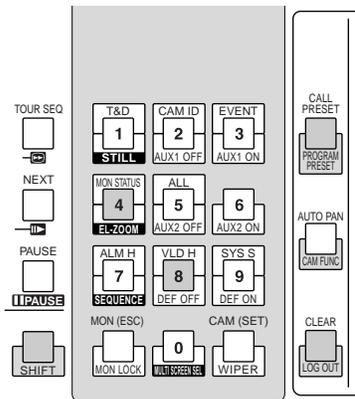
1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. To activate the auto panning function of the selected camera, press the AUTO PAN button.



3. To cancel the auto panning function, move the joystick.

■ Program Preset Position

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. To move the camera to the position to be preset, move the joystick and press the lens control buttons.
3. To select the desired preset position number, press the numeric buttons.
4. When you have selected a wrong number, press the CLEAR button to clear the numeric input.
4. Press the CALL PRESET button while holding down the SHIFT button to save a preset position of the selected camera.

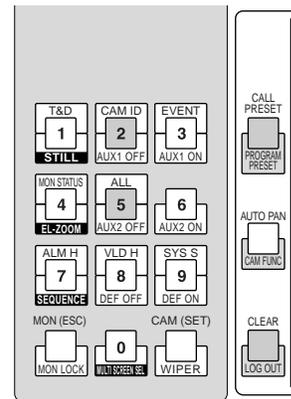


Notes:

- If the entered position number has stored the previous preset position, it will be overwritten by the new one.
- SETUP MENU and WJ-SX150 Administrator Console can configure each operator's pan/tilt control. (Refer to p. 62 OPERATOR REGISTRATION or p. 75 Operator Registration.)

■ Call Preset Position

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. To select the desired preset position number, press the numeric buttons.
4. When you have selected a wrong number, press the CLEAR button to clear the numeric input.
3. Press the CALL PRESET button to move to the preset position of the selected camera on the active monitor.

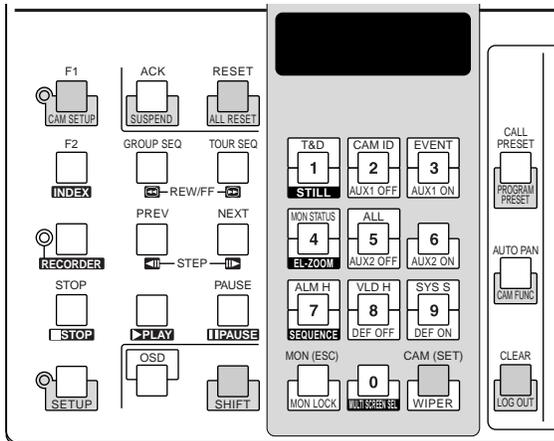


Note: To use the above function, you must set the preset position number for the camera.

CAMERA FUNCTION CONTROL

■ Camera Setup

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the F1 button while holding down the SHIFT button.
The CAM SETUP indicator on the controller will light up and the camera's SETUP MENU will appear on the active monitor.



3. To select the desired item in the menu, move the joystick to ▼ or ▲. To select the desired parameter (or mode) in the menu, move the joystick to ◀ or ▶.
4. To execute the currently highlighted selection and to enter a submenu of SETUP MENU, press the CAM (SET) button.
5. To leave from the currently selected menu and to return to the previous page of the menu, press the MON (ESC) button.
6. Move the cursor to SPECIAL on the camera's setup menu, and press numeric buttons 4 and 6 simultaneously for 2 seconds or more to display the special menu.
7. Move the cursor to CAMERA RESET on the camera's setup menu, and press buttons 4, 5 and 6 simultaneously to reset all the functions to the defaults.

Notes:

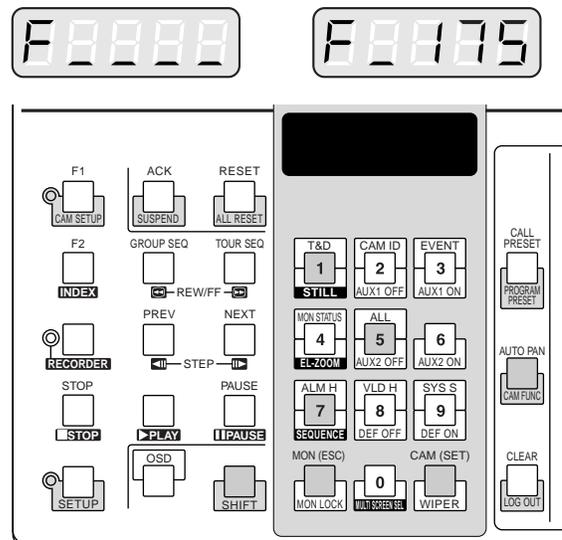
- Refer to the operating instructions of the selected camera for details.
- Move the joystick while holding down the SHIFT button to move the camera smoothly for presetting the positions in the camera's SETUP MENU.

8. To close the camera's SETUP MENU, press the F1 button while holding down the SHIFT button.
The CAM SETUP indicator goes off.

■ Camera Function (Shortcut Function)

The following function is available only when specified cameras with the camera function feature are used.
This function enables executing camera functions via a shortcut.

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the AUTO PAN button while holding down the SHIFT button.
"F_ _ _" will appear on the LED display of the controller as shown in the figure.



3. Press the numeric buttons to select an assigned function number, then press the CAM (SET) button.
For example, enter 175 for AGC ON.
The selected function will be executed on the active monitor.

Notes:

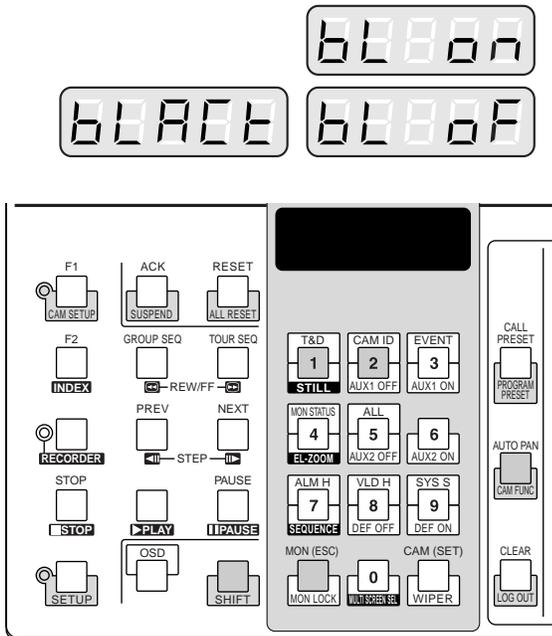
- When you select a wrong number, press the CLEAR button to clear the numeric input.
- Refer to the cameras' operating instructions for details on available shortcuts.

4. To exit from the mode, press the MON (ESC) button then press the AUTO PAN button while pressing the SHIFT button.

■ Changing to Black and White Images

This function gets the clear camera images on the monitor while shooting the objects under low light conditions.

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the AUTO PAN button two times while holding down the SHIFT button.
"BLACK (black)" will appear on the LED display of the controller as shown in the figure.



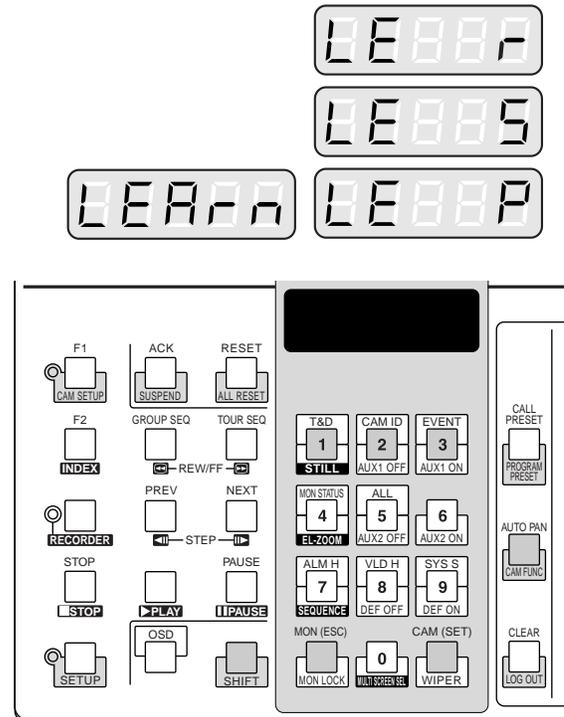
3. Press the button 1 to change the image from the color mode to the black and white mode on the active monitor.
"BL ON (BLACK ON)" appears on the LED display to indicate the selected mode.
4. Press the button 2 to change the black and white image to the color image on the active monitor.
"BL OF (BLACK OFF)" appears on the LED display to indicate the selected mode.
5. Press the MON (ESC) button to exit from the mode.

Note: When the black and white parameter is set to AUTO in the camera's SETUP MENU, this function is disabled.

■ Patrol Learn and Play

A routine of manual operations can be stored for a specific time and later reproduced repetitively.

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the AUTO PAN button three times while holding down the SHIFT button.
"LEARN" will appear on the LED display of the controller as shown in the figure.

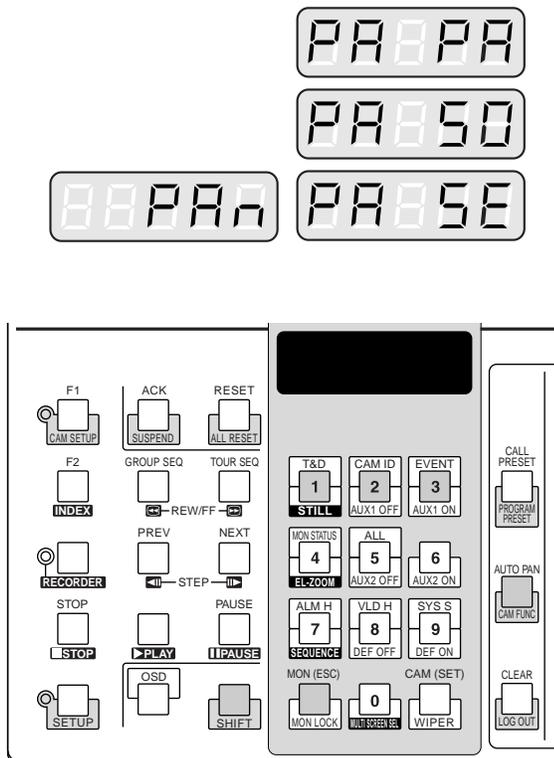


3. To save the patrol sequence, follow the procedure below.
 - ① Press the button 2, then press the CAM (SET) button.
"LE R" appears on the LED display.
 - ② Operate the camera manually.
 - ③ Press the button 3.
The operation data is saved and "LE S" appears on the LED display.
4. To reproduce the operation data, follow the procedure below.
 - ① Press the button 1.
"LE P" appears on the LED display.
 - ② Press the button 3.
The reproduction is ended.
5. To exit from the mode, press the MON (ESC) button.

■ Camera Panning Function

There are three panning modes available as follows: auto pan, sort mode and sequence mode. Refer to p. 16 Camera-related Functions for details on each mode.

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the AUTO PAN button four times while holding down the SHIFT button.
"PAN" will appear on the LED display of the controller as shown in the figure.



3. Press the assigned numeric button shown below to activate the panning function of the selected camera.
The LED display indicates the selected mode as follows.

- 1: Activates AUTO PAN "PA PA".
- 2: Activates SORT PAN "PA SO".
- 3: Activates SEQUENCE PAN "PA SE".

Note: The AUTO MODE parameter previously set in the camera's SETUP MENU will be automatically replaced to the activated function parameter.

4. To exit from the mode, press the MON (ESC) button, then press the AUTO PAN button while holding down the SHIFT button.

CAMERA SITE ACCESSORIES CONTROL

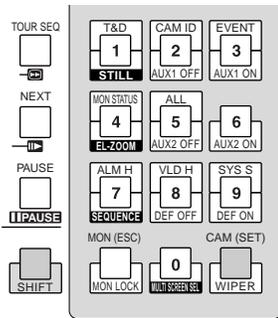
Receiver Control

The following functions are available only when the receivers are included in the system and the specified camera housing is installed.

Camera Housing Control

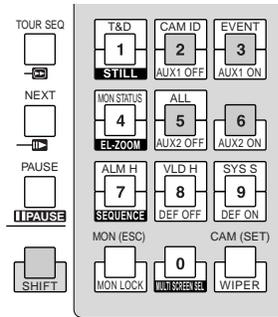
Wiper Control

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the CAM (SET) button while holding down the SHIFT button to turn on the housing wiper of the camera until buttons are released.



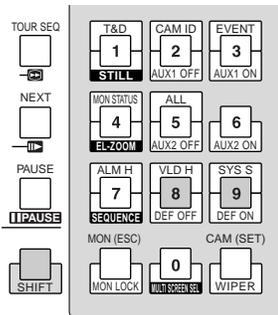
Auxiliary Control

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the button 3 while holding down the SHIFT button to turn on the user's auxiliary switch 1 of the receiver. Press the button 2 while holding down the SHIFT button to turn off the user's auxiliary switch 1 of the receiver.
3. Press the button 6 while holding down the SHIFT button to turn on the user's auxiliary switch 2 of the receiver. Press the button 5 while holding down the SHIFT button to turn off the user's auxiliary switch 2 of the receiver.



Defroster Control

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the button 9 while holding down the SHIFT button to turn on the housing defroster of the camera.
3. To turn off the defroster, press the button 8 while holding down the SHIFT button.

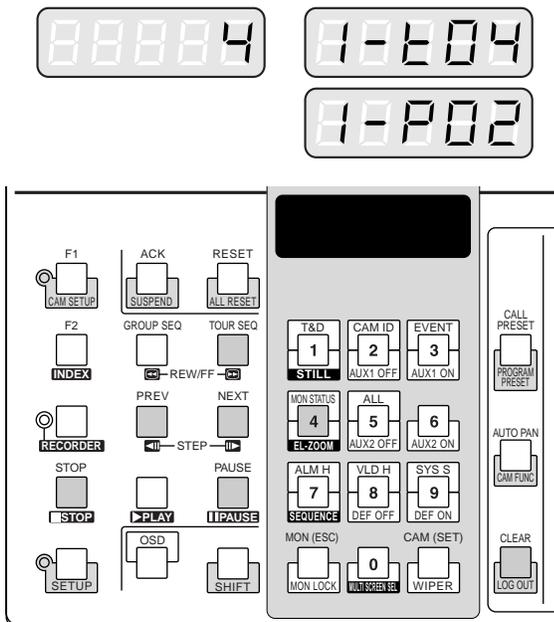


RUNNING SEQUENCE

■ Tour Sequence

The following functions are available if a tour sequence has been previously configured through SETUP MENU or WJ-SX150 Administrator Console. Any tour sequence can be assigned to any monitors.

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. To select the desired tour sequence number, press the numeric buttons.
3. When you have selected a wrong number, press the CLEAR button to clear the numeric input.
4. Press the TOUR SEQ button to run the tour sequence in the forward direction on the active monitor.



5. Press the PAUSE button to pause a tour sequence on the active monitor.
The "P" sign (indicating the pause status) is displayed at the tour sequence number on the active monitor, and a camera number currently selected appears on the LED display.
6. Press the PAUSE button to restart a tour sequence forward from the next step that was previously paused by pressing the PAUSE button.
7. Press the NEXT button to move the sequence one frame to the next step from the step that was previously paused by pressing the PAUSE button.

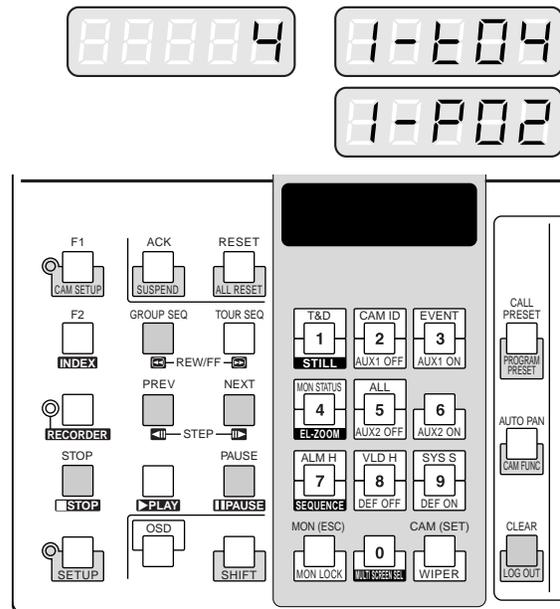
8. Press the PREV button to move the sequence one frame to the previous step from the step that was previously paused by pressing the PAUSE button.
9. Press the STOP button to stop a tour sequence on the active monitor and return to spot monitoring.

■ Group Sequence

The following function is available only if a group sequence has been previously established in WJ-SX150 Administrator Console.

As described earlier, a group sequence determines the assignment of monitors and cameras. Therefore, monitor selection is not required.

1. Press the numeric buttons to select a desired group sequence number.
2. When you have selected a wrong number, press the CLEAR button to clear the numeric input.
3. Press the GROUP SEQ button to run a group sequence forward on the assigned monitors.



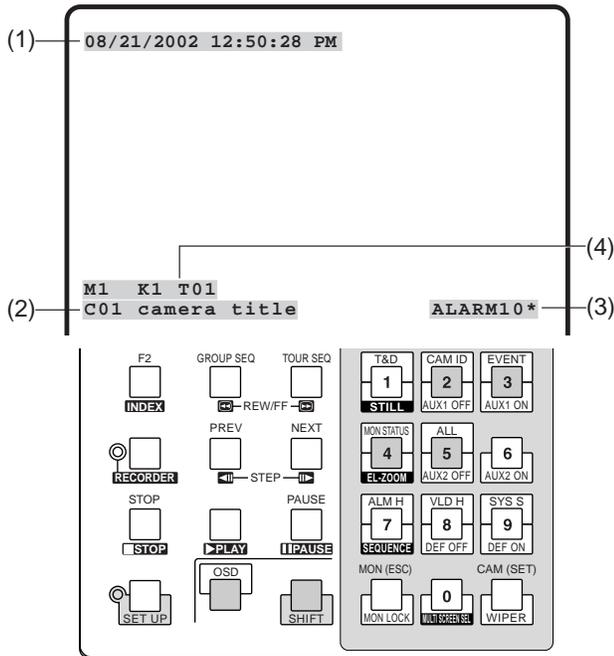
4. Press the PAUSE, NEXT or PREV button to operate the group sequence. Refer to steps 5 to 8 of Tour Sequence in this page for how to use these buttons.
5. To stop the sequence, select one of the monitors that are being run on the selected group sequence, then press the STOP button.

MONITOR DISPLAY CONTROL

■ On-screen Display (OSD) Control

The procedure described below lets you determine the display parameters, such as camera title, clock and status, on and off on the active monitor screen.

Before controlling each item, monitor selection is necessary. (Refer to p. 90 Monitor Selection.)



● Displaying the Clock

Toggle the button 1 while holding down the OSD button.

(1) will appear/disappear on/from the active monitor.

● Displaying the Camera Title

Toggle the button 2 while holding down the OSD button.

(2) will appear/disappear on/from the active monitor.

● Displaying the Event

Toggle the button 3 while holding down the OSD button.

(3) will appear/disappear on/from the active monitor.

● Displaying the Monitor Status*

Toggle the button 4 while holding down the OSD button.

(4)* will appear/disappear on/from the active monitor.

* Monitor number, controller number and monitor mode

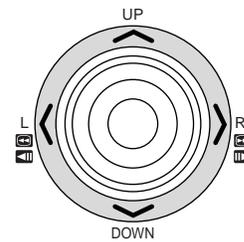
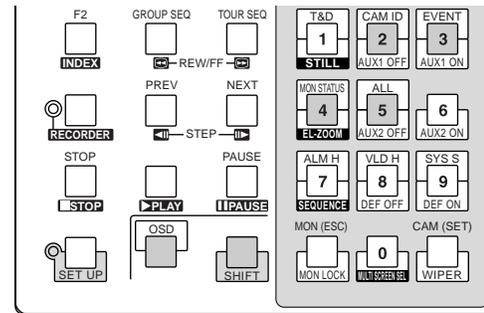
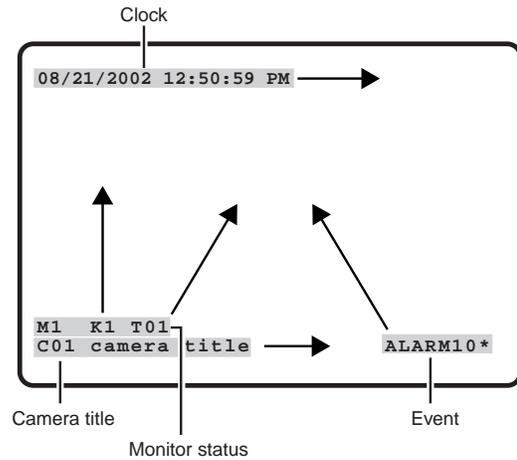
● Displaying All the Items

Toggle the button 5 while holding down the OSD button.

(1), (2), (3) and (4) will appear/disappear on/from the active monitor.

■ On-screen Display (OSD) Position Control

The procedure described below lets you determine the display positions, such as camera title, clock and status, on the active monitor screen.



● Moving the Clock Display

Move the joystick while holding down the OSD, SHIFT and 1 buttons.

(1) will move to the desired direction.

● Moving the Camera Title Display

Move the joystick while holding down the OSD, SHIFT and 2 buttons.

(2) will move to the desired direction.

● Moving the Event Display

Move the joystick while holding down the OSD, SHIFT and 3 buttons. (3) will move to the desired direction.

● Moving the Monitor Status*

Move the joystick while holding down the OSD, SHIFT and 4 buttons. (4) will move to the desired direction.

* Monitor number, controller number and monitor mode

● Moving All the Items

Move the joystick while holding down the OSD, SHIFT and 5 buttons. (1), (2), (3), and (4) will move to the desired direction.

MODE: Lists the display mode on the monitors.

SPOT: Spot mode

Tnn: Tour Sequence mode (nn is the tour sequence number.)

SET: WJ-SX150 Setup mode

ALARM: Alarm Active mode

ACK: Alarm ACK mode

VLD H: VLD History Table

ALM H: Alarm History Table

SYS S: System Status Table

KB: Lists the system controller number or PC.

OPE: Lists the operator number

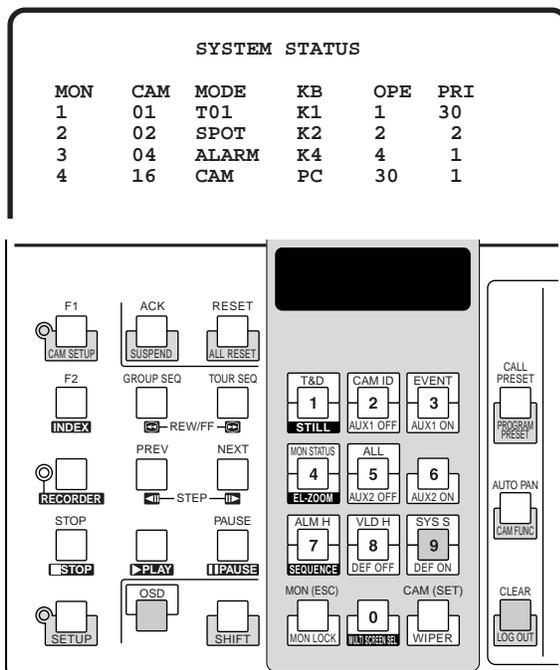
PRI: Lists the priority number

3. To exit from the mode, press the CLEAR button.

■ System Status Table

The table shows the current system status.

1. Select the desired monitor. (Refer to p. 90 Monitor Selection.)
2. Press the button 9 while holding down the OSD button. "OSD" will appear on the LED display, and the SYSTEM STATUS table will appear on the active monitor as shown in the figure.



The columns in the table indicate the states as shown in the figure.

MON: Monitor number

CAM: Camera number

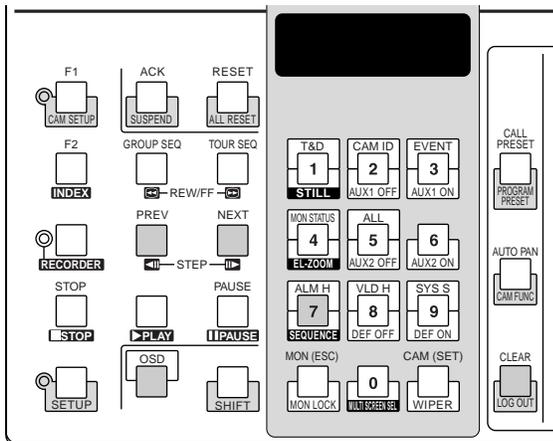
No number indicates no camera is selected.

Alarm History Table

There are 100 alarm records stored in chronological order in 10 pages of tables.

1. Select the desired monitor. (Refer to p. 90 Monitor Selection.)
2. Press the button 7 while holding down the OSD button. "OSD" will appear on the LED display, and the ALARM HISTORY table will appear on the active monitor as shown in the figure.

ALARM HISTORY 1 of 2				
NO	YYYY/MM/DD	HH:MM:SS	ALARM	EVENT
016	2001/08/21	18:59:08	03	ALARM
015	2001/08/21	18:58:08	03	ACK
014	2001/08/21	18:57:08	03	RESET
013	2001/08/21	18:55:08	07	ALARM
012	2001/08/21	18:54:08	07	ACK
011	2001/08/21	18:53:08	07	RESET
010	2001/08/21	18:53:00	09	ALARM
009	2001/08/21	18:52:08	09	RESET
008	2001/08/21	18:51:08	06	ALARM
007	2001/08/21	18:50:08	06	ACK

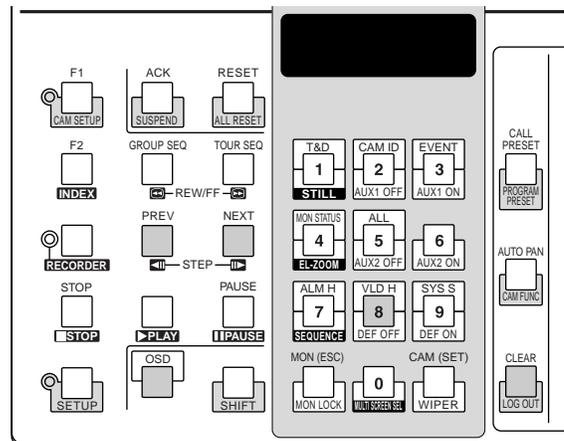


Video Loss History Table

There are 100 video loss detection records stored in chronological order in 10 pages of table.

1. Select the desired monitor. (Refer to p. 90 Monitor Selection.)
2. Press the button 8 while holding down the OSD button. "OSD" will appear on the LED display, and the VIDEO LOSS HISTORY table will appear on the active monitor as shown in the figure below.

VIDEO LOSS HISTORY 1 of 2				
NO	YYYY/MM/DD	HH:MM:SS	CH	EVENT
012	2001/08/21	18:59:08	03	VIDEO RECOVER
011	2001/08/21	18:58:08	14	VIDEO RECOVER
010	2001/08/21	18:57:08	09	VIDEO LOSS
009	2001/08/21	18:55:08	07	VIDEO LOSS
008	2001/08/21	18:54:08	08	VIDEO LOSS
007	2001/08/21	18:53:08	16	VIDEO LOSS
006	2001/08/21	18:53:00	09	VIDEO LOSS
005	2001/08/21	18:52:08	14	VIDEO LOSS
004	2001/08/21	18:51:08	06	VIDEO LOSS
003	2001/08/21	18:50:08	01	VIDEO RECOVER



The columns in the table indicate the states as follows:

- DATE:** Lists the date and time when the alarm state changes.
- ALARM:** Lists the alarm number (01 - 16).
- EVENT:** Lists the event when the alarm state changes.

3. Press the NEXT button to select the next page of the history, and press the PREV button to back up to the previous page.
4. To exit from the mode, press the CLEAR button.

The columns in the table indicate the states as follows:

- DATE:** Lists the date and time when the video loss state changes.
- CH:** Lists logical camera number that is connected to the system.
- EVENT:** Lists the event when the video loss state changes.

ALARM CONTROL

■ Alarm Mode

When alarm (sensor) is accepted, the matrix switcher's operation mode changes to the alarm mode. Then, the system operates as follows:

- The camera image (alarm image) appears on the monitor.

In the factory default setting, the alarm inputs 1 to 16 are associated with the same-numbered camera input connectors. All the video output signals are sent to Monitor 1. For example, when the alarm (sensor) connected to the alarm input 1 becomes active, the camera input connector 1's image appears on Monitor 1.

- "ALARMnn" appears on the monitor.

The display indicates the image is input through the alarm nn (nn is the alarm number).

When more than one alarm signal input has been accepted, "ALARMnn*" appears on the monitor.

ALARM01

- Alarm output signals are supplied from Alarm Output 1 to 4 (#10, 11, 23 and 24) of the ALARM port (25-pin D-sub connector) at the rear panel. Alarm Output 1 to 4 is associated with MONITOR OUT 1 to 4. For example, when an alarm input signal is activated on MONITOR OUT 1, the unit supplies Alarm Output 1 to Monitor 1.
- The monitor and alarm number will appear on the LED display. At the same time, the alarm indicator will blink, the monitor indicator will light up, and the camera indicator will go out.



There are two operation mode when more than one alarm signal has been accepted by the unit that is assigned to the same monitor.

- **Sequence mode:** An alarm operation is replaced by another one after the dwell time ends.
- **Hold mode:** An initial alarm operation is continued even after another alarm input is accepted.

Notes:

- The association of the alarm inputs with cameras and monitors are changeable in SETUP MENU or WJ-SX150 Administrator Console. (Refer to p. 56 or p. 74.)
- Alarm input will be automatically reset in 30 seconds. The auto-recovery time is configurable through SETUP MENU or WJ-SX150 Administrator Console.

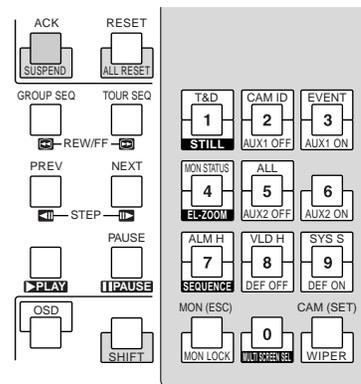
■ Operating during an Alarm Mode

While an alarm mode is active, the following are available from the system controller:

- Operating the camera with the alarm input (ACK)
- Resetting the alarm (RESET/ALL RESET)
- Suspending the alarm (ALM SUSPENDED)

■ Operation of an Alarm-related Camera (ACK)

You can operate the camera with the alarm input as follows:



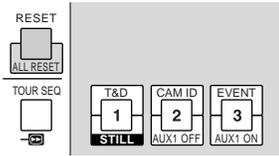
ACK

1. Select a monitor which displays "ALARM".
2. Press the ACK button.
"ACK" will appear on the monitor with an alarm input. The camera with an alarm input will become operable.
3. Operate camera with the system controller.
Pan/Tilt, zoom, focus, and iris are available. When selecting another monitor, "ACK" will disappear from the display. The matrix switcher system will return to the alarm mode.

■ Resetting the Alarm Inputs

There are two alarm reset functions:

- Alarm reset (resetting the alarm inputs according to the input order)
- Alarm all reset (resetting all the alarm inputs)

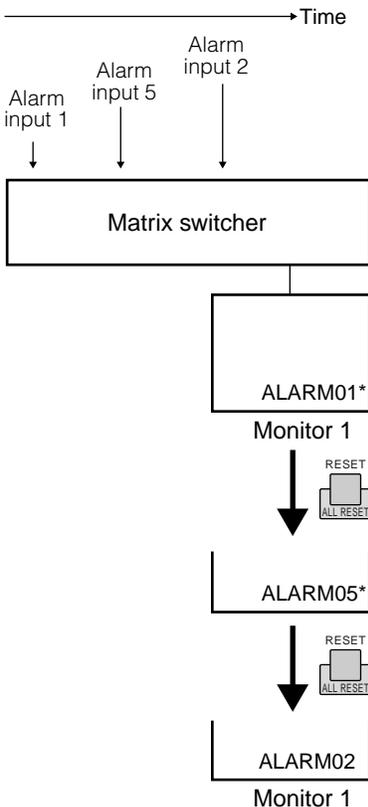


● Alarm Reset

1. Select a monitor which displays "ALARM".
2. When more than one alarm signal has been input, the second earliest alarm image appears on the monitor, after the current alarm image is reset.
3. To reset all the alarms, repeat steps 1 and 2. The monitor, the LED display and the indicator will change as follows:

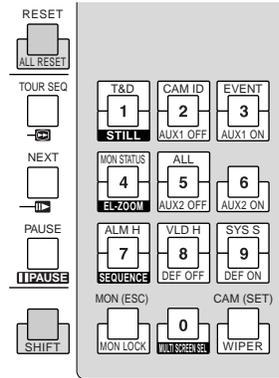
"ALARMnn" will disappear from the monitor.
 The LED display will return to the state before the alarm input.
 The alarm indicator will go out.
 The CAM indicator will return to the state before the alarm input.

• Description about alarm reset



Note: When more than one alarm is input and they are associated with the same monitor, they will be reset one by one.

● Alarm All Reset

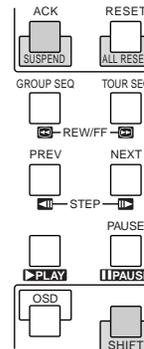


1. Press the RESET button while holding down the SHIFT button.
2. The monitor, the LED display and the indicator will change as follows:

"ALARMnn" will disappear from the monitor.
 The LED display will return to the state before the alarm input.
 The alarm indicator will go out.
 The CAM indicator will return to the state before the alarm input.

■ Suspending the Alarm Inputs

Use this function when you do not want to be disturbed by an alarm input, for example, during the setup procedures.



ALM SUSPENDED

1. Press the ACK/SUSPEND button while holding down the SHIFT button.
 "ALM SUSPENDED" will appear on the monitor.
2. To cancel alarm suspension, press the ACK/SUSPEND button while holding down the SHIFT button again.
 "ALM SUSPENDED" will disappear from the monitor.

Notes:

- An alarm continues to operate even after it is suspended.
- If you suspend an alarm while an alarm image is displayed, "ALM SUSPENDED" will not appear on the monitor. Reset the alarm, and then suspend it again.

MULTIPLEXER OPERATIONS

Multiplexer board WJ-SXB151 is an optional board. It enables multiscreen display, electronic zooming, still picture and multiscreen sequence.

It also enables the operation of Digital Disk Recorder WJ-HD100 Series or time-lapse VCR, when connected to them.

Note: Before the use, it is necessary to install the Multiplexer board in the matrix switcher and configure the system through SETUP MENU and WJ-SX150 Administrator Console. [Refer to p. 34 Installing the Multiplexer Board, p.52 WJ-SX150 SETUP MENU (OSD), and p. 64 WJ-SX150 ADMINISTRATOR CONSOLE.]

■ Monitoring the Camera Picture

● Multiscreen Segment Switching

Refer to p. 117 Multiscreen Segment Switching for details.

● Multiscreen Sequence

Camera images are switched automatically in a sequence mode.

The sequence mode (QUAD, 3+1, 8+1) is configurable through WJ-SX150 Administrator Console.

(Refer to p. 82 Sequence Mode of Multiplexer Mode for details.)

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
The monitor number and camera number will appear on the LED display.
2. Press the RECORDER button. (Refer to p. 116 Recorder Mode.) The system will enter the recorder mode.
3. Press the button 7 while holding down the SHIFT button.
A sequence of multiscreen pictures is displayed according to the WJ-SX150 Administrator Console's configuration.
4. To cancel the sequence, press the button 0 while holding down the SHIFT button.

Note: The sequence mode can also be cancelled by pressing a numeric button (corresponding one to the monitor number), then the CAM (SET) button.

● Still Playback Spot Picture

The spot picture is changed into the still picture.

1. Select the desired monitor and camera number. (Refer to p. 90 Monitor Selection and Camera Selection.)
The monitor number and camera number will appear on the LED display.
2. Press the RECORDER button. (Refer to p. 116 Recorder Mode.) The system will enter the recording mode.
3. Press the PLAY button. (Refer to p. 117 Normal Playback.) The system will enter the playback mode.
4. Select a camera channel by pressing a numeric button and then pressing the CAM (SET) button. The selected camera image will be displayed in a spot picture.
5. Press the button 1 while holding the SHIFT button. The selected camera image will change into the still picture.
6. To cancel the still picture, press the button 1 while holding down the SHIFT button again.
Note: Still picture is not available while zooming is activated.

● Still Multiscreen Picture

Still pictures can also be displayed in a multiscreen.

1. Select the desired monitor and camera number. (Refer to p. 90 Monitor Selection and Camera Selection.)
The monitor number and camera number will appear on the LED display.
2. Press the RECORDER button. (Refer to p. 116 Recorder Mode.) The system will enter the recorder mode.
3. Press the numeric button corresponding to the camera number.
4. Press the button 1 while holding down the SHIFT button.
The selected camera image will change into the still picture.
"STILL" and the camera title alternately blinks on the monitor.
5. To cancel the still picture, press the button 1 while holding down the SHIFT button again.

Notes:

- "STILL" does not appear when the still display is set to OFF.
- When you skip Step 3 and do Step 4, all the channels displayed in the multiscreen segments will be changed into the still pictures.

● Electronic Zooming (EL-ZOOM)

Playback spot pictures can be electrically zoomed.

1. Select the desired monitor. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
2. Press the RECORDER button. (Refer to p. 116 Recorder Mode.) The system will enter the recorder mode.
3. Press the PLAY button. (Refer to p. 117 Normal Playback.) The system will enter the playback mode.
4. Select a camera channel by pressing a numeric button and then pressing the CAM (SET) button. The selected camera image will be displayed in a playback spot picture.
5. Press the button 4 while holding down the SHIFT button. “+” signs will appear on the image.
6. To move the “+” signs within the picture, move the joystick.
7. Press the button 4 while holding down the SHIFT button. The area surrounded by the “+” signs will be zoomed up.
8. To move the zoom area, move the joystick.
9. To cancel the zooming, press the button 4 while holding down the SHIFT button again.

Note: Still picture is not available while zooming is activated.

OPERATING PROCEDURES (PS-DATA)

WHEN USING A PS-DATA SYSTEM CONTROLLER

This manual describes the operating procedures which are specifically related to WJ-SX150.

For the basic operating procedures such as log-in/log-out, camera selection, and camera control, etc., refer to the system controller's operating instructions.

The following are different from the terminal mode when you use the system controller via the PS-Data protocol.

- Camera selection, camera control, camera site accessories control are in accordance with the PS-Data System operating procedures. Refer to the system controller's operating instructions.
- You cannot reset an alarm one by one per monitor. However, you can reset all the alarms at a time (ALL RESET).
- You cannot acknowledge an alarm.
- You cannot use the auto log-in function of the unit. To use this function, use a terminal-mode system controller.
- You cannot use the auto log-out function of the unit.
- You cannot move the clock, camera title, event, and/or monitor status display with a PS-Data controller. Use a terminal-mode system controller.
- Operators using the PS-Data system controller have the highest priority to all those using the terminal-mode system controllers.
- PS-Data doesn't support user-management, and you cannot configure the PS-Data operator registration neither through SETUP MENU nor WJ-SX150 Administrator Console.

Notes:

- When you select a monitor with a PS-Data system controller, you might enter its number as you do in the terminal mode. However, the matrix switcher regards a monitor as a unit, you need to select it by the unit number. (Refer to p. 109.)
- This unit is counted as 4 PS-Data units. Confirm the total number of the PS-Data units in your system. (Up to 16 PS-Data units are available.)

MONITOR CONTROL

Refer to the system controller's operating instructions before you login the system. After the log-in procedure, the following operations are available to control the system. The operation begins with selecting a monitor, then the selected camera appears the active monitor.

■ Monitor Selection

Unit addresses are given to each monitor.

Rotary SW	Mon 1	Mon 2	Mon 3	Mon 4
1	1	2	3	4

The following is how to select a monitor.

1. Press the numeric button(s) to select the desired monitor's unit address.
2. Press the UNIT button.
The selected monitor will be activated.

■ Priority Lock

You can apply or release priority lock by entering the function code. Monitor display is the same as those of terminal mode. (Refer to p. xx for the illustrations.)

1. Select the desired monitor. (Refer to Monitor Selection).
2. Press the SHIFT button, and enter 101 by pressing the numeric buttons.
3. Press the FUNCTION button. The function will be executed.
If the priority lock mode is selected, the monitor number will inversely appear on the active monitor.
4. To release the priority lock, do steps 2 and 3 again.

Note: This function will prevent operators in the terminal mode from gaining control of a monitor. However, operators via the PS-Data protocol can still gain control.

RUNNING SEQUENCE

■ Tour Sequence

The following functions are available if a tour sequence has been previously configured through SETUP MENU or WJ-SX150 Administrator Console. Any tour sequence can be assigned to any monitors.

1. Select the desired monitor. (Refer to p. 109 Monitor Selection.)
2. To select the desired tour sequence number, press the numeric buttons.
3. Press the SEQ button to run the tour sequence in the forward direction on the active monitor.
4. Press the SEQ PAUSE button to pause a tour sequence on the active monitor.
A series of camera picture appear in pause on the monitor screen for the specified dwell time.
5. Press the SEQ PAUSE button again to restart a tour sequence forward from the next step that was previously paused by pressing the SEQ PAUSE button.
6. Press the SHIFT button, and then press the + button to move the sequence one frame to the next step from the step that was previously paused by pressing the PAUSE button.
Press the SHIFT button, and then press the - button to move the sequence one frame to the previous step from the step that was previously paused by pressing the PAUSE button.
7. Select a camera (refer to the system controller's operating instructions) to stop the sequence. The monitor will return to the spot mode.

■ Group Sequence

The following function is available only if a group sequence has been previously established in WJ-SX150 Administrator Console. The group sequence has ID numbers. Group 1 is 17, Group 2 is 18, Group 3 is 19, and Group 4 is 20.

As described earlier, a group sequence determines the assignment of monitors and cameras. Therefore, monitor selection is not required.

1. Press the numeric buttons to select a desired group sequence ID number, then press the SEQ button.
2. Press the SEQ button to run a group sequence forward on the assigned monitors.
5. Press the SEQ PAUSE button again to restart a tour sequence forward from the next step that was previously paused by pressing the SEQ PAUSE button.
6. Press the SHIFT button, and then press the + button to move the sequence one frame to the next step from the step that was previously paused by pressing the PAUSE button.
Press the SHIFT button, and then press the - button to move the sequence one frame to the previous step from the step that was previously paused by pressing the PAUSE button.
7. Select a camera (refer to the system controller's operating instructions) to stop the sequence. The monitor will return to the spot mode.

MONITOR DISPLAY CONTROL

The procedure described below lets you determine on-screen display (OSD) items, such as camera title, clock and status, on and off on the active monitor screen.

Before controlling each item, monitor selection is necessary. (Refer to p. 109 Monitor Selection.)

1. Press the SHIFT button, and then press the numeric buttons corresponding to the function code.
(Refer to the table.)
2. Press the FUNCTION button. The function will be executed.

Function	Code	Controller Status	Note
Displaying the clock	104		Pressing again will hide the display.
Displaying the camera title	105		Pressing again will hide the display.
Displaying the event	106		Pressing again will hide the display.
Displaying the monitor status	107		Pressing again will hide the display.
Displaying all the items	19		Pressing again will hide the display.
Displaying System Status	102	"OSD" appears on the LED.	Pressing again will return to the normal display.
Displaying Video Loss History	103	"OSD" appears on the LED.	Pressing again will return to the normal display.

Notes:

- Alarm History Table doesn't have a function code. When displaying the table, press the ALM RECALL button instead of the steps 1 and 2 above. "OSD" will appear on the LED display, and the ALARM HISTORY table will appear on the active monitor.
- You cannot control OSD display position.

ALARM CONTROL

■ Alarm Mode

When alarm (sensor) is accepted, the matrix switcher's operation mode changes into the alarm mode. Then, the system operates as follows:

- The camera image (alarm image) appears on the monitor.

In the factory default setting, the alarm inputs 1 to 16 are associated with the same-numbered camera input connectors. All the video output signals are sent to Monitor 1. For example, when the alarm (sensor) connected to the alarm input 1 becomes active, the camera input connector 1's image appears on Monitor 1.

- "ALARMnn" appears on the monitor.

The display indicates the image is input through the alarm nn (nn is the alarm number).

When more than one alarm signal input has been accepted, "ALARMnn*" appears on the monitor.

- The alarm indicator will blink.
- Alarm output signals are supplied from Alarm Output 1 to 4 (#10, 11, 23 and 24) of the ALARM port (25-pin D-sub connector) at the rear panel. Alarm Output 1 to 4 is associated with MONITOR OUT 1 to 4. For example, when an alarm input signal is activated on MONITOR OUT 1, the unit supplies Alarm Output 1 to Monitor 1.
- The monitor and alarm number will appear on the LED display. At the same time, the alarm indicator will blink, the monitor indicator will light up, and the camera indicator will go out.

Notes:

- The association of the alarm inputs with cameras and monitors are changeable in SETUP MENU or WJ-SX150 Administrator Console. (Refer to p. 56 or p. 74.)
- Alarm input will be automatically reset in 30 seconds. The auto-recovery time is configurable through SETUP MENU or WJ-SX150 Administrator Console.

■ Operation during an Alarm Mode

While an alarm mode is active, you can do the following:

- Resetting all the alarm inputs (ALL RESET)
- Suspending all the alarm inputs (ALM SUSPENDED)

■ Resetting All the Alarm Inputs

You can reset all the alarm input signals at a time.

1. Select a monitor which displays "ALARM".
(Refer to the figure on p. 102.)
2. Press the SHIFT button, and then press the ALL RESET button.
All the alarms will be reset.
Then, the LED display and indicators will return to the state before the alarm input.

Note: You cannot reset the alarm input signals one by one.

■ Suspending All the Alarm Inputs

Use this function when you do not want to be disturbed by an alarm input, for example, during the setup procedures.

1. To suspend all the alarm input signals, press the SHIFT button., and then press the SUSPEND button.
The indicator beside the button will light up and "ALM SUSPENDED" will appear on the monitor.
(Refer to the figure on p. 103.)
2. To cancel alarm suspension, do Step 1 again.

Notes:

- The alarm suspension is applied to all system units, not to a selected one.
- An alarm which was input before the suspension will continue to operate.

MULTIPLEXER OPERATIONS (PS - Data)

This section will describe what you should take notice when using a PS-Data system controller. The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them.

■ Controlling the Unit with a PS-Data System Controller

1. Before operating the recorder, it is necessary to enter the recorder mode. (Refer to p. 124 or p. 125.)
2. Enter the desired function code (refer to the diagram) and press the FUNCTION button.

EXPANDED FUNCTION

WJ-HD500 SERIES CONTROL (TERMINAL MODE)

Matrix switcher can control Digital Disk Recorder WJ-HD500 Series. The following is the procedure of WJ-HD500 Series SETUP MENU.

Notes:

- The following operating procedures are for the terminal mode. If you are using a PS-Data system controller, refer to p. 124.
- When a Multiplexer board is installed in the unit, you can neither connect nor control a WJ-HD500 Series recorder. You need to remove the board from the unit.

■ Displaying WJ-HD500 Series SETUP MENU

To display WJ-HD500 Series SETUP MENU, follow the procedure below.

1. Confirm that WJ-HD500 Series is correctly and securely connected.
2. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
The monitor number and camera number will appear on the LED display.
3. Press the RECORDER button.
The system will enter the recorder mode and the selected monitor will change into multiscreen display. Then, the selected monitor number and "-H00" will appear on the LED display

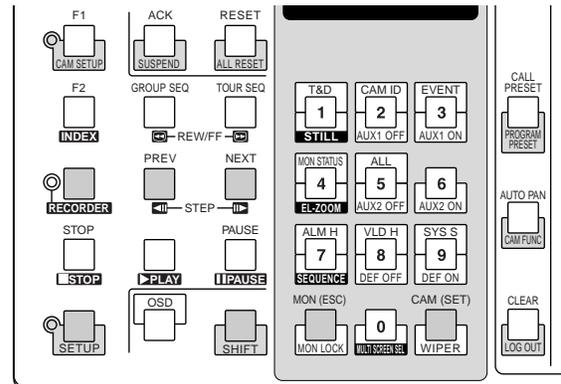
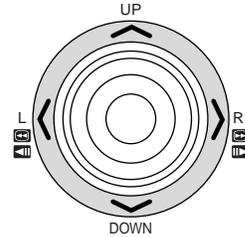


4. Press the SETUP button while holding down the SHIFT button on the system controller.
WJ-HD500 Series SETUP MENU will appear on the active monitor and the system controller's SETUP indicator will light up.

The following functions and buttons are valid in SETUP MENU.

- Joystick to UP (▲):** Moves the cursor up.
- Joystick to DOWN (▼):** Moves the cursor down.
- Joystick to L (◀):** Moves the cursor to the left.
- Joystick to R (▶):** Moves the cursor to the right.
- CAM (SET) button:** Executes the selections and displays a submenu.

- NEXT button:** Increments a parameter.
- PREV button:** Decrements a parameter.
- MON (ESC) button:** Returns to SETUP MENU or the previous menu.



5. To end the setting and return to the normal view, press the SETUP button while holding down the SHIFT button when SETUP MENU is displayed. The system controller's SETUP indicator will go out.

■ Controlling Digital Disk Recorder WJ-HD500 Series

The following are the operating procedures of WJ-HD500 Series via system controller.

Note: Refer to the operating instructions of Digital Disk Recorder WJ-HD500 Series for details.

● Recorder Mode

Before operating the recorder, it is necessary to enter the recorder mode.

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
The monitor number and camera number will appear on the LED display.
2. Press the RECORDER button to enter the recorder mode.

- The indicator beside the RECORDER button will light up, and the images from the recorder are displayed on the active monitor in multiscreen segments.
- The CAMERA indicator will go out and the monitor number with "-H00" will appear on the LED display.



00: Multiscreen display
01 to 16: Spot display (camera number)

3. To exit from the recorder mode, select the camera. (Refer to p. 91 Camera Selection.) The indicator beside the button will go out. The monitor number and camera number will appear on the LED display again.

You can also exit from the recorder mode by pressing the RECORDER button during the recorder mode.

Note: Only one operator can enter the recorder mode.

● Multiscreen Segment Switching

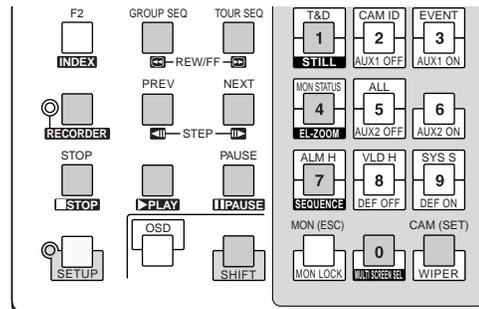
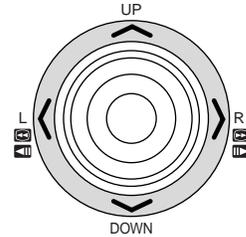
Multiscreen segment patterns are configurable through WJ-HD500 SETUP.
(Refer to the recorder's operating instructions.)

1. Enter the recorder mode (Refer to p. 116 Recorder.)
2. Press the RECORDER button again. Every time you press the button, the multiscreen segment patterns are switched. (The following is the factory default setting.)
4A (Page 1 of the quad → Camera 1, 2, 3, and 4) → 4B (Page 2 - Camera 5, 6, 7 and 8) → 4C (Page 3 - Camera 9, 10, 11 and 12) → 4D (Page 4 - Camera 13, 14, 15 and 16) → 7 (segments) → 9 → 10 → 13 → 16 → 4A
3. To return to the spot display, exit from the recorder mode.

Note: Multiscreen segment patterns are not configurable through WJ-SX150 Administrator Console.

● Normal Playback

1. Enter the recorder mode (Refer to p. 116 Recorder Mode.)
2. To start the playback, press the PLAY button. The system will enter the playback mode. Then, the most recent recorded image will be played back.



- To pause the playback, press the PAUSE button.
- To stop the playback, press the STOP button.
- To resume the playback, press the PLAY button.
- To move forward/backward search during the playback, move the joystick rightward/leftward, or press REW/FF button.
- **Joystick to R (▶)/FF (⏩):** Search forward
- **Joystick to L (◀)/REW (⏮):** Search backward
- To move forward/backward field advance during the pause, move the joystick rightward/leftward, or press REW/FF button.
- **Joystick to R (▶)/STEP (⏪):** Forward field advance
- **Joystick to L (◀)/STEP (⏩):** Backward field advance
- To display the spot picture, press the numeric button corresponding to the desired camera number, then press the CAM (SET) button. Then, the active monitor number with "-H** (** is the camera number)" will appear on the LED display.

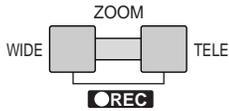


- To resume the multiscreen display, press the button 0 while holding down the SHIFT button.
- To change the number of multiscreen segments, press the button 0 while holding down the SHIFT button again during the multiscreen display.

3. To stop the playback, press the STOP button. The monitor display will return to the multiscreen display.

● Manual Recording

1. Enter the recorder mode (Refer to p. 116 Recorder Mode.)
2. To start recording, press the WIDE and TELE buttons simultaneously.
The digital disk recorder will start recording.
3. To stop the recording, press the STOP button while holding down the SHIFT button.



Note: Refer to WJ-HD500 Series Operating Instructions for details and other recording modes.

● Search Playback

You can search playback images using the Record List or Thumbnail Display. Every time you press the INDEX button, the display will change as follows.

Live image → Record List → Thumbnail Display → Live image

You can operate the Record List or Thumbnail Display by referring to the recorder's operating instructions. In addition, the following operations from the system controllers are also available.

Joystick to UP (▲): Moves the cursor up.

Joystick to DOWN (▼): Moves the cursor down.

Joystick to L (◀): Moves the cursor to the left.

Joystick to R (▶): Moves the cursor to the right.

CAM(SET) button: Displays the search editing area./Starts the search after you enter the search condition.

MON(ESC)button: Cancels the search editing area and returns to the Record List or Thumbnail Display.

NEXT button: Increments a parameter.

PREV button: Decrements a parameter.

PLAY button: Starts the playback of a record pointed by the cursor.

Note: The PLAY button is deactivated in the search editing area.

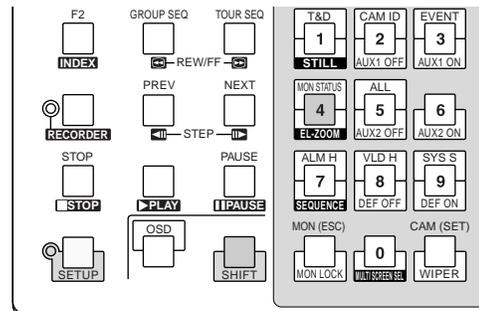
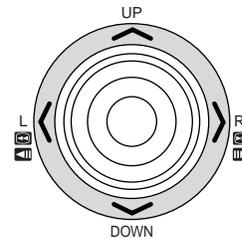
● Electronic Zooming (EL-ZOOM)

Playback images can be electrically zoomed besides a camera's optical zooming.

1. Enter the recorder mode (Refer to p. 116 Recorder Mode.)
2. Press the PLAY button.
3. Press the numeric button corresponding on the desired camera number to display the spot picture.
4. Press the CAM (SET) button.
The selected camera's picture is displayed in the spot mode.



5. Each time the button 4 and the SHIFT button are pressed, the zooming range are changeable as follows:
2x → 4x → 8x → 1x → 2x



6. To return the zooming range to x 1, press the button 4 while holding down the SHIFT button again.
7. To return to the multiscreen display, press the button 0 while holding down the SHIFT button.

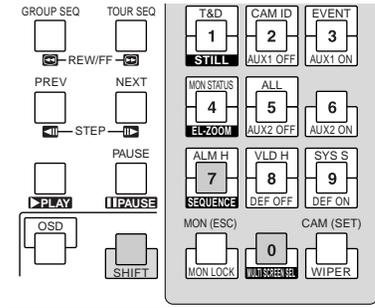
Notes:

- You can move the zoomed area on the monitor with the joystick after Step 4.
- You can also display the still picture after step 4.

● Multiscreen Sequence

Digital disk recorder starts a sequence according to the setting of WJ-HD500 Series.

1. Enter the recorder mode (Refer to p. 116 Recorder Mode.)
2. Press the button 7 while holding down the SHIFT button.



3. To cancel the sequence, press the button 0 while holding down the SHIFT button.
The display will change into the multiscreen display.

● Other Operations

SHIFT + ZOOM WIDE buttons: Selects a group to be

SHIFT + ZOOM TELE buttons: Changes the display mode of the Record List between the alarm search ON and OFF.

ON: Displays only the Alarm and Emergency Record List of the selected group.

OFF: Displays all the record lists for the selected group.

WJ-HD100 SERIES CONTROL (TERMINAL MODE)

Digital Disk Recorder WJ-HD100 Series are operable with the system controller, while connecting to the matrix switcher.

Note: Before the use, it is necessary to install the multiplexer board in the matrix switcher, connect the matrix switcher to the digital disk recorder, and configure the system through WJ-SX150 Administrator Console, OSD SETUP MENU, and WJ-HD100 Series SETUP MENU. [Refer to p. 34 Installing the Multiplexer Board, p.44 Connection with Digital Disk Recorder WJ-HD100 Series, p. 52 WJ-SX150 SETUP MENU (OSD), p. 64 WJ-SX150 ADMINISTRATOR CONSOLE, and Displaying WJ-HD100 Series SETUP MENU in this page.]

The following is the procedure of WJ-HD100 Series SETUP MENU.

The following functions and buttons are valid in SETUP MENU.

Joystick to R (▶): Decrements a parameter

Joystick to L (◀): Increments a parameter

■ Displaying WJ-HD100 Series SETUP MENU

The operations are the same as WJ-HD500 Series. Refer to p.116 Displaying WJ-HD500 Series SETUP MENU.

■ Controlling Digital Disk Recorder WJ-HD100 Series

The following are the operating procedures of WJ-HD100 Series via the system controller.

● Multiscreen Segment Switching

The operating procedure is the same as WJ-HD500 Series. (Refer to p118)

Note: 7-, 10-, or 13-segment multiscreen display is unavailable.

● Manual Recording

The operations are the same as WJ-HD500 Series. Refer to p. xx.

● Normal Playback

Monitor display can be divided into 4, 9, or 16 multiscreen segments to display camera images.

1. Select the desired monitor and camera. (Refer to p. 90 Monitor Selection and p. 91 Camera Selection.)
The monitor number and camera number will appear on the LED display.

2. Press the RECORDER button on the system controller.
The system will enter the recorder mode and the RECORDER indicator beside the button will light up.

2. To start the playback, press the PLAY button.

3. To pause the playback, press the PAUSE button.

4. To resume the playback, press the PLAY button.

5. To stop the playback, press the STOP button.

Note: Refer to WJ-HD100 Series Operating Instructions for details and other playback modes.

● Forward or Backward Search

The recorded images can be searched at variable speeds. This function is available during the playback or playback pause. (Refer to Normal Playback in the previous page.) Move the joystick rightward or leftward to search images.

Joystick to R(▶): Search forward

Joystick to L(◀): Search backward

The joystick inclination can control the forward/backward search speed.

● Forward or Backward Field Advance

The recorded images can be searched field by field. During the pause, move the joystick rightward or leftward to advance an image field by field.

Joystick to R(▶): Forward field advance

Joystick to L(◀): Backward field advance

● Search Playback

You can search playback images using the ALARM RECALL table or the SEARCH table.

Every time you press the INDEX button, the display will change as follows.

Live image → ALARM RECALL table → Date-and-time entry form → Live image

The operations are the same as WJ-HD500 Series. Refer to p. 118 Search Playback.

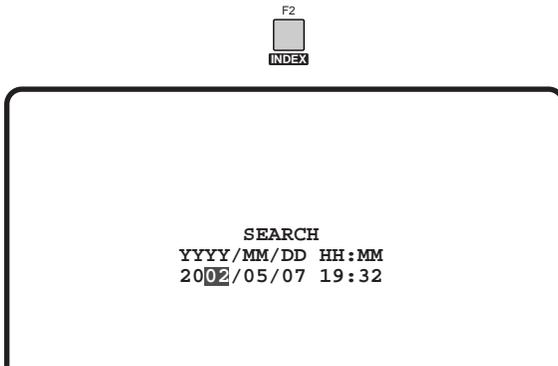
• **ALARM RECALL table**

The recorder's alarm history will be displayed on the ALARM RECALL table.

Move the cursor with the joystick to the desired alarm number, and then press the PLAY button. The associated image will be played back.

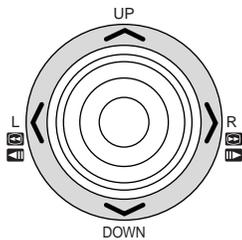
ALARM RECALL 1 OF 10				
NO	DATE	TIME	ALM	
99	JUN 9.00	00:00:00	* T	
98	JUN 1.00	02:34:56	T	
97	JUN 1.00	01:10:01	* V	
96	MAY31.00	23:34:45	V	
95	MAY30.00	02:00:20	* T	
94	MAY14.00	05:30:31	* T	
93	MAY 7.00	23:00:59	T	
92	MAY 6.00	22:05:50	V	
91	APR14.00	23:00:59	* T	
90	APR14.00	16:06:34	* V	

• **Date-and-time entry form**



Note: To cancel the entry form, press the CLEAR button.

1. Press the numeric buttons to enter the date and time written down in step 2. The cursor can be adjusted by moving the joystick rightward or leftward.



2. Press the PLAY button. After the search through the date and time, the recorded image will be played.
3. To return to the multiscreen display, press the STOP button.

TIME-LAPSE VCR CONTROL [PANASONIC MODELS] (TERMINAL MODE)

A time-lapse VCR (Panasonic Models) is operable with the system controller, while connecting to the matrix switcher.

Note: Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the time-lapse VCR, and configure the system through WJ-SX150 Administrator Console, OSD SETUP MENU, and time-lapse VCR's SETUP MENU. [Refer to p. 34 Installing the Multiplexer Board, p. 45 Connection with the Time-lapse VCR (Panasonic Models), p. 52 WJ-SX150 SETUP MENU (OSD), and p. 64 WJ-SX150 ADMINISTRATOR CONSOLE.]

The following is the procedure of a Panasonic model time-lapse VCR.

■ Controlling the Time-lapse VCR

The following are the operating procedures of the time-lapse VCR via System Controller WV-CU360C/CJ.

● To Operate Multiscreen Display

The operations are the same as WJ-HD500 Series. Refer to p.xx Multiscreen Display.

● Manual Recording

The operations are the same as WJ-HD500 Series. Refer to p.xx Manual Recording.

● Normal Playback

The operations are the same as WJ-HD500 Series. Refer to p.xx Normal Playback.

● Fast-forward

1. Press the FF button to fast-forward the tape during the stop.
2. To stop fast-forwarding, press the STOP button.

Note: Pressing the FF button during fast-forward will start playback.

● Rewind

1. During the stop, press the REW button to rewind the tape.
2. Press the STOP button to stop rewinding.

Note: Pressing the PLAY button during rewind will start playback.

● Forward or Backward Search

The recorded images can be searched at variable speeds. This function is available during the playback or playback pause. (Refer to p. 117 Normal Playback.)

Move the joystick rightward or leftward to search images.

Joystick to R (▶)/FF (⏮): Search forward

Joystick to L (◀)/REW (⏮): Search backward

The joystick inclination can control the forward/backward search speed.

During the search noise may appear on the image.

● Forward or Backward Field Advance

The recorded images can be searched field by field.

During the pause, move the joystick rightward or leftward to advance an image field by field.

Joystick to R (▶)/STEP (⏮): Forward field advance

Joystick to L (◀)/STEP (⏮): Backward field advance

Note: Index is unvaivable for time-lapse VCR.

TIME-LAPSE VCR CONTROL [NON-PANASONIC MODELS] (TERMINAL MODE)

A time-lapse VCR is operable with the system controller, while connecting to the matrix switcher.

Notes:

- Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the digital disk recorder, and configure the system through WJ-SX150 Administrator Console, OSD SETUP MENU, and time-lapse VCR's SETUP MENU. [Refer to p. 34 Installing the Multiplexer Board, p. 46 Connection with the Time-lapse VCR (Non-Panasonic Models), p. 52 WJ-SX150 SETUP MENU (OSD), and p. 64 WJ-SX150 ADMINISTRATOR CONSOLE.]
- You cannot display the setup menu of a time-lapse VCR.
- You cannot control non-Panasonic time-lapse VCRs from PS-Data system controllers.

The following is the procedure of a non-Panasonic model time-lapse VCR.

■ Controlling the Time-lapse VCR

● To Operate the Multiscreen Display

The operations are the same as WJ-HD500 Series. Refer to p. 117 Multiscreen Segment Switching.

● Manual Recording

Refer to the time-lapse VCR's operating instructions for how to operate.

● Normal Playback

1. Enter the recorder mode. (Refer to p. 116 Recorder Mode.)
2. Do the playback procedure using the buttons on the front panel. (Refer to the time-lapse VCR's operating instructions for how to operate.)
3. Press the PLAY button. The playback image will appear on the monitor.
4. To display the spot picture, press the numeric buttons corresponding to the desired camera number, then press the CAM [SET] button. Then, the active monitor number with "-H**" (** is the camera number) will appear on the LED display. (Refer to p. 117 Normal Playback for the illustration.)

● Fast-forward

Refer to the time-lapse VCR's operating instructions for how to operate.

● Rewind

1. During the stop, press the REW button to rewind the tape.
2. Press the STOP button to stop rewinding.

Note: Pressing the PLAY button during rewind will start playback.

WJ-HD500 SERIES CONTROL (PS-DATA)

This section will describe what you should take notice when using a PS-Data system controller. The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them. Refer the descriptions of terminal mode for illustrations.

■ Controlling the Recorder with a PS-Data System Controller

● Recorder Mode

Before operating the recorder, it is necessary to enter the recorder mode.

1. Select the desired monitor. (Refer to p. 109 Monitor Selection.)
2. Enter "111" by pressing the numeric button.
"111" will appear on the LED display.
3. Press the CAM button.
The recorder image will be displayed on the selected monitor, and you will enter the recorder mode.
4. Enter the desired function code, and then press the FUNCTION button. (Refer to the diagram.)

Function	Code	Note
Forward field advance	1	
Backward field advance	2	
Pause	4	
Playback	5	
Recording	6	Equal to the REC button of the recorder
Stop recording and playback	8	
Stop playback	9	Exclusive use to stop playback
Stop recording	10	Exclusive use to stop recording
Search forward	11	
Search backward	12	
Displaying a recorder's OSD	19	Pressing again will hide the display.

5. To select a camera channel, press the numeric button(s), then CAM button. The system will exit from the recorder mode, and the selected camera image will be displayed on the monitor.

Notes:

- Only one operator can enter the recording mode.
- The images from the recorder, which are displayed on the monitor, is conformed to the recorder setting.

WJ-HD100 SERIES CONTROL (PS-DATA)

This section will describe what you should take notice when using a PS-Data system controller. The same descriptions as the system controller's operating instructions are not mentioned here. Refer to them. Refer the descriptions of terminal mode for illustrations.

■ Controlling the Recorder with a PS-Data System Controller

● Recorder Mode

Before operating the recorder, it is necessary to enter the recorder mode.

1. Select the desired monitor. (Refer to p. 109 Monitor Selection.)
2. Enter "111" by pressing the numeric button.
"111" will appear on the LED display.
3. Press the CAM button.
The recorder image will be displayed on the selected monitor, and you will enter the recorder mode.
4. Enter the desired function code, and then press the FUNCTION button. (Refer to the diagram.)

Function	Code	Note
Forward field advance	1	
Backward field advance	2	
To the last field	3	
Pause	4	
Playback	5	
Recording	6	Equal to the REC button of the recorder
To the first field	7	
Stop recording and playback	8	
Stop playback	9	Exclusive use to stop playback
Stop recording	10	Exclusive use to stop recording
Search forward	11	
Search backward	12	

5. To select a camera channel, press the numeric button(s), then CAM button. The system will exit from the recorder mode, and the selected camera image will be displayed on the monitor.

Notes:

- Only one operator can enter the recording mode.
- The images from the recorder, which are displayed on the monitor, is conformed to the recorder setting.

TIME-LAPSE VCR CONTROL (PS-DATA)

This section will describe what you should take notice when using a PS-Data system controller. The same descriptions as those of digital disk recorders are not mentioned here. Refer to p.xx for details.

Notes:

- Before the use, it is necessary to install the Multiplexer board in the matrix switcher, connect the matrix switcher to the time-lapse VCR, and configure the system through WJ-SX150 Administrator Console, OSD SETUP MENU, and time-lapse VCR's SETUP MENU. [Refer to p. 34 Installing the Multiplexer Board, p. 45 Connection with the Time-lapse VCR (Panasonic Models), p. 52 WJ-SX150 SETUP MENU (OSD), and p. 64 WJ-SX150 ADMINISTRATOR CONSOLE.]
- The time-lapse VCR's SETUP MENU cannot be displayed from a system controller.

■ Controlling the Time-lapse VCR with a PS-Data System Controller

Function	Code
Forward field advance	1
Backward field advance	2
Pause	4
Playback	5
Recording	6
Stop recording/playback	8

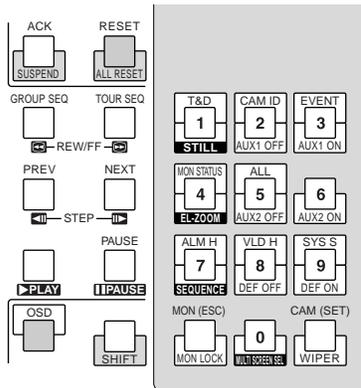
MONITOR DISPLAY WHEN A VIDEO LOSS OCCURS

Video Loss Display

- When video loss of CAMERA IN nn (nn is a number) is detected, "LOSS CH nn" will blink on the monitor.
- When more than one LOSS CH have occurred, "LOSS CH nn*" will appear on the monitor.

LOSS CH01
LOSS CH01*

- When the input loss is recovered, "LOSS CH nn" will disappear from the monitor.
- When you press the RESET button while pressing the "OSD" button, "LOSS CH nn" will disappear from the monitor.



Camera Switching Pulse Loss Display

- When loss of the camera switching pulse is detected, "SW LOSS" will blink on the monitor.

SW LOSS

- When the camera switching pulse is recovered, "SW LOSS" will disappear from the monitor.

TROUBLESHOOTING

Check to see the following before request for repair.

If a trouble cannot be removed even after checking and trying remedy, contact your dealer.

Problem	Check item	Remedy
Matrix switcher does not power up.	The power cord may be disconnected either from the unit's power socket or the AC outlet.	Connect the power cord between the unit's power socket and the AC outlet.
System controller(s) do (does) not log in.	The unit's power cord may be disconnected from the AC outlet.	Connect the power cord to the AC outlet.
	The cable connection(s) may be wrong between the unit and the system controller(s).	Confirm the cable connections. (Refer to p. 40.)
	The mode selection switch setting of the system controller may be wrong.	Confirm the mode selection switch setting. (Refer to p. 24.)
	Data port setting may be wrong.	Open the Data Port window of WJ-SX150 Administrator Console (refer to p. 81.) to select CU360 for the data port. If 485 CAM is selected for the port, the log-in will be invalid.
	Your ID, user number or password may be wrong.	Refer to your Operator Registration worksheet. Or open the Operator Registration window (refer to p. 75) and reconfigure your ID, user number and password.
Monitor is not selectable.	The monitor selection setting may be wrong.	Open the Monitor Selection window (refer to p. 76) and confirm the setting. If NG is assigned to your controller for the monitor, the selection will be invalid.
Camera image is not displayed even after selecting the camera.	The camera's power cord connection may be wrong.	Confirm the power cord connection. (Refer to the camera's operating instructions.)
	The cable connections may be wrong between the unit and the camera.	Confirm the connections (pp. 37 to 39). If the connections and camera type are not correspondent, the camera image will not appear.
	The lens cover may not have been removed from the camera.	Remove the lens cover from the camera.
	The monitor's brightness or contrast setting may not be proper.	Adjust the setting. (Refer to the monitor's operating instructions.)

Problem	Check item	Remedy
The camera image is dim.	Dust may be sticking on the camera lens.	Remove the dust from the camera lens.
	The camera's lens focus may not be proper.	Press the FOCUS NEAR/ FAR buttons to adjust the lens focus. If the camera supports auto focus, press these buttons simultaneously. The lens focus can be adjusted automatically.
	The camera's cable compensation setting may not be proper.	Open 710 COMPENSATION/VD2/DATA (refer to p. 60) or the Cable Compensation/VD2 window (refer to p. 78) to confirm the setting.
The camera is not operable.	The camera may not have been selected.	Select the camera again. (Refer to p. 91.)
	The camera may not support the function you try to execute.	Confirm whether the camera supports the function. (Refer to the camera's operating instructions.)
	The camera's cable setting may wrong.	Open 710 COMPENSATION/VD2/DATA (refer to p. 60) or the Cable Compensation/VD2/DATA (refer to p. 78) window to confirm the setting. If the camera's DATA is set to OFF, the RS-485 cameras will not be operable.
	The data port setting may wrong.	Open the Data Port window (refer to p. 81) and confirm the setting.
	When the BUSY indicator is lighting on the system controller, a higher-priority operator has selected the camera.	<ul style="list-style-type: none"> • Select another camera. • Wait until a higher-priority operator finishes controlling the camera.
	While the PROHIBITED indicator is lighting on the system controller, you are prohibited to control the camera.	Open the Operator Registration window (refer to p. 75) and reconfigure the setting.
OSD items (Clock, Camera title, Monitor status, Event) overlap one another.		<ul style="list-style-type: none"> • Turn off an overlapping item. (Refer to p. 99.) • Move OSD items. (Refer to p. 99.) • Change the area title display position through the camera's setup menu. (Refer to the camera's operating instructions.)
Tour/group sequence is not activated.	The tour/group sequence setting may be wrong.	Open 300 SEQUENCE (refer to p. 55), the Tour Sequence (refer to p. 68) or Group Sequence (p. 69) window and reconfigure the setting.
	The setting has not been put from the PC to the unit.	Put the configuration data to the unit again after the configuration. (Refer to p. 67 Put a File to SX150.)
	When the PROHIBITED indicator is lighting on the system controller, you are prohibited to control the camera.	Open 800 OPERATOR REGISTRATION (refer to p. 62) or the Operator Registration window (refer to p. 75) and reconfigure the setting.

Problem	Check item	Remedy
The alarm mode is not activated.	The alarm mode is set to OFF.	Set the alarm mode to SEQUENCE or HOLD in SETUP MENU or WJ-SX150 Administrator Console. SETUP MENU: Refer to p. 52. Administrator Console: Refer to p. 64.
	The port for an alarm input is set to OFF.	Set the alarm port to ON in SETUP MENU or WJ-SX150 Administrator Console. SETUP MENU: Refer to p. 52 Administrator Console: Refer to p. 64.
	When "ALM SUSPENDED" is displayed on the monitor, the alarm is suspended.	Press the ACK/SUSPEND button while holding down the SHIFT button to cancel the alarm suspension.
	SETUP MENU may be open.	Press the SETUP button while holding down the SHIFT button to close SETUP MENU.
ACK or RESET is not activated.	You may not have selected the alarm-related monitor.	Select the monitor again. (Refer to p. 90.)
	The system controller is not authorized to select the monitor.	Confirm the Monitor Selection window in WJ-SX150 Administrator Console and reconfigure the setting if necessary. (Refer to p. 76.)
	You are not authorized to reset an alarm.	Confirm the Level Table window in WJ-SX150 Administrator Console and reconfigure the setting if necessary. (Refer to p. 76.)
	While the PROHIBITED indicator is lighting on the system controller, you are prohibited to control the monitor.	Open the Level Table (refer to p. 76) or Monitor Selection window (refer to p. 76) and reconfigure the setting if necessary.
Timer event is not activated.	A higher-priority operator may have selected the event-related monitor.	Select another monitor.
SETUP MENU does not open.	When the PROHIBITED indicator is lighting on the system controller, you are prohibited to open SETUP MENU.	Open the Level Table window (refer to p. 76) and reconfigure the setting.
The system does not enter the recording mode.	The recorder connection may be wrong.	Connect the recommended recorder to the unit.
	The connected recorder may not conform to the unit.	Confirm the recorder connection (refer to pp. 41 to 46.)
	You are not authorized to operate the recorder.	Open the Level Table window (refer to p. 76) and reconfigure the setting.

APPENDIX

COMMUNICATION PROTOCOL

The following pages detail the elements for communication between the unit and the PC.

When operating the PC, make sure to conform the serial port's communication speed to that of the unit.

The unit's communication speed is configurable by changing COM. SPEED in SETUP MENU. Data, parity and stop bits have been set as follows:

Item	Parameter
Data length	8bit(fixed)
Parity bit	NONE(fixed)
Stop bit	1bit(fixed)
Hardware flow control (ER/DR/RS/CS)	Not supported yet
Software flow control (Xon/Xoff)	Not supported yet
Wait Time	Not supported yet

1. Transmission Command

The PC sends messages to the recorder in the following format. Also refer to the command table.

Code	[STX] [Transmission Command] : [p1] : [p2] : : [pn] [ETX]
ASCII	(02H) ()----- () (03H)

[p] stands for parameter. Parameters are omitted when the command does not need to specify them.

2. Response Command

The unit returns messages to the PC with the following formats.

(1) Reception Command

When the reception was completed successfully, the unit sends back the "ACK code 06H" to the PC, and then the response command.

Code	[STX] [Response Command] : [p1] : [p2] : : [pn] [ETX]
ASCII	(02H) ()----- () (03H)

Parameters are omitted when the command format includes neither data nor status to send back.

(2) Reception Error

The unit sends back "NAK code 15H", followed by the parameters. The unit then resets the reception buffer and enters the waiting mode for the next message. Parameter "e" identifies the error status.

Code	[NAK] [e]
ASCII	(15H)

1: Parity error (31H)

4: Overrun error (34H)

2: Overflow error (32H)

5: Timeout error (35H)

3: Framing error (33H)

(3) Parameter Error

The unit returns "ACK code 06H", if the transmission code was not processed properly, followed by an error code.

Code	[STX] [Response Command] : [E] [R] [n1] [n2] [n3] [ETX]
ASCII	(02H) ()----- (45H) (52H) 03H

[n] stands for an error code number. (Refer to p. 141.)

Note: The unit returns [ACK] or [NAK] to the PC within 20 ms after the reception of [ETX] in a transmission.

■ Command Table

Basic Operation

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Log-in	CMD:Wnnnnn-ppppp	ANS:WOK (When OK) ANS:WNG (When NG)	nnnnn= Operator number ppppp= Password
Log-out	CMD:H00LG	ANS:H00LG	
Monitor Selection	CMD:HmmMS	ANS:HmmMS	mm=Monitor No.
Camera Selection	CMD:HmmCSc CMD:HmmCS+1 CMD:HmmCS-1	ANS:HmmCSc ANS:HmmCS+1 ANS:HmmCS-1	mm=Monitor No. cc=Camera No. +1=To the next camera (Next) -1=To the previous camera (Prev)
Starting tour sequence	CMD:HmmSTnn	ANS:HmmSTnn	mm=Monitor No. nn=Tour sequence No. nn=00 Recorder sequence ON when the recorder is selected.
Starting group sequence	CMD:HmmSGn	ANS:HmmSGn	mm=Monitor No. n=Group sequence No.
Pausing sequence (PAUSE)	CMD:HmmSP	ANS:HmmSPn	mm=Monitor No. n=0 (SEQUENCE), 1 (PAUSE)
Stopping sequence (STOP)	CMD:HmmSO	ANS:HmmSO	mm=Monitor No.
Sequence increment (NEXT)	CMD:HmmSI	ANS:HmmSI	mm=Monitor No. Available only during sequence pause
Sequence decrement (PREV)	CMD:HmmSD	ANS:HmmSD	mm=Monitor No. Available only during sequence pause
Priority lock	CMD:HmmPR	ANS:HmmPRn	Transmission command toggles priority lock ON or OFF. mm=Monitor No. n=0 (OFF) n=1 (ON)
OSD display ON / OFF or Moving OSD display position	CMD:Hmms(o)	ANS:HmmALn	Transmission command toggles OSD display ON or OFF. Use (o) parameter when moving OSD display position. mm=Monitor No. ss=AL All OSD items ON/OFF ss=TM Time & date ON/OFF ss=TL Camera title ON/OFF ss=TE Event ON/OFF ss=TO Monitor status ON/OFF o=U Moving upward o=D Moving downward o=L Moving leftward o=R Moving rightward n=0 Displayed n=1 Not displayed
History or status display ON/OFF	CMD: Hmms	ANS: Hmmsn	mm=Monitor No. ss=DA Alarm history ON/OFF ss=DV Video loss history ON/OFF ss=DS System status ON/OFF n=0 Displayed n=1 Not displayed

Alarm Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Alarm input	OAIcc	No response	cc=Alarm No.
Alarm ACK (Each monitor)	CMD:HmmAK	ANS:HmmAK	mm=Monitor No.
Alarm reset (Each monitor)	CMD:HmmAR	ANS:HmmAR	mm=Monitor No.
Alarm all reset	CMD:H00AR	ANS:H00AR	
Alarm suspension	MAD	MADn	Transmission command toggles alarm suspension ON or OFF. n=0 OFF n=1 ON

Setup Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Display SETUP MENU	CMD:HmmSS	ANS:HmmSS	mm=Monitor No.
Return to normal view*	CMD:HmmSE	ANS:HmmSE	mm=Monitor No. *Available only in SETUP MENU
Move the cursor leftward	CMD:AmmJL	—	mm=Monitor No.
Move the cursor rightward	CMD:AmmJR	—	mm=Monitor No.
Move the cursor upward	CMD:AmmJU	—	mm=Monitor No.
Move the cursor downward	CMD:AmmJD	—	mm=Monitor No.
Enter "0"	CMD:AmmT0	—	mm=Monitor No.
Enter "1"	CMD:AmmT1	—	mm=Monitor No.
Enter "2"	CMD:AmmT2	—	mm=Monitor No.
Enter "3"	CMD:AmmT3	—	mm=Monitor No.
Enter "4"	CMD:AmmT4	—	mm=Monitor No.
Enter "5"	CMD:AmmT5	—	mm=Monitor No.
Enter "6"	CMD:AmmT6	—	mm=Monitor No.
Enter "7"	CMD:AmmT7	—	mm=Monitor No.
Enter "8"	CMD:AmmT8	—	mm=Monitor No.
Enter "9"	CMD:AmmT9	—	mm=Monitor No.
SET	CMD:AmmST	—	mm=Monitor No.
ESC	CMD:AmmES	—	mm=Monitor No.
INC	CMD:AmmIN	—	mm=Monitor No.
DEC	CMD:AmmDE	—	mm=Monitor No.
NEXT	CMD:AmmNX	—	mm=Monitor No. Available in SETUP MENU, Alarm History and Video Loss History
PRE	CMD:AmmPR	—	mm=Monitor No. Available in SETUP MENU, Alarm History and Video Loss History

Camera Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
PAN/TILT	CMD:CmmPTccxyy	—	mm=Monitor No. cc=Camera No. • Panning speed xx=00 STOP xx=01 to 40(HEX) + direction panning (Max is 40 and min is 01) xx=81 to C0(HEX) - direction panning (Max is C0 and min is 81) • Tilting speed yy=00 STOP yy=01 to 40(HEX) + direction tilting (Max is 40 and min is 01) yy=81 to C0(HEX) - direction tilting (Max is C0 and min is 81)
Zoom	CMD:CmmZMccn	—	mm=Monitor No. cc=Camera No. n=0 STOP n=1 TELE n=2 WIDE
Focus	CMD:CmmFCcn	—	mm=Monitor No. cc=Camera No. n=0 STOP 1 NEAR 2 FAR 3 AUTO FOCUS
Iris	CMD:CmmIRccn	—	mm=Monitor No. cc=Camera No. n=0 STOP n=1 OPEN n=2 CLOSE n=3 AUTO IRIS

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Camera's SETUP MENU	CMD:CmmCMccn	—	mm=Monitor No. cc=Camera No. n=0 OFF n=1 ON The following commands are available in SETUP MENU: CMD:AmmJL (Move the cursor leftward) CMD:AmmJR (Move the cursor rightward) CMD:AmmJU (Move the cursor upward) CMD:AmmJD (Move the cursor downward) CMD:AmmST (SET) CMD:AmmES (ESC) CMD:AmmIN (RESET) CMD:AmmDE (ALL RESET)
Call Preset Position	CMD:CmmPMccnn	—	mm=Monitor No. cc=Camera No. nn=01 to 64 Preset position No. nn=00 Home position
Program Preset Position	CMD:CmmPScnn	—	mm=Monitor No. cc=Camera No. nn=01 to 64 Preset position No.
Color/BW	CMD:CmmBWccn	—	mm=Monitor No. cc=Camera No. n=0 OFF (Color) n=1 ON (BW)
Patrol	CMD:CmmPAccn	—	mm=Monitor No. cc=Camera No. n=0 STOP n=1 PLAY n=2 LEARN
Camera Function	CMD:CmmCFcnnn	—	mm=Monitor No. cc=Camera No. nnn=Camera function No. (001 to 256)
Auto Panning	CMD:CmmAPccn	—	mm=Monitor No. cc=Camera No. n=0 AUTO PAN n=1 AUTO SORT n=2 AUTO SEQ
Wiper	CMD:CmmWPccn	—	mm=Monitor No. cc=Camera No. n=0 OFF n=1 ON
Defroster	CMD:CmmDFccn	—	mm=Monitor No. cc=Camera No. n=0 OFF n=1 ON
AUX1	CMD:CmmA1ccn	—	mm=Monitor No. cc=Camera No. n=0 OFF n=1 ON
AUX2	CMD:CmmA2ccn	—	mm=Monitor No. cc=Camera No. n=0 OFF n=1 ON

Recorder Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Recorder button	CMD:HmmRS	ANS:HmmRS	Playback images of HD500 Series appear on the monitor. (Recorder mode) To cancel the recorder mode, enter the STOP command, then Camera Selection command. (Refer to p. 107).
Multiscreen segment switching	CMD:RmmML	ANS:RmmML	mm=Monitor No.
Electronic Zoom	CMD:RmmZM	ANS:RmmZMn	Transmission command toggles zoom. mm=Monitor No. n=0 Zoom OFF n=1 + mark display ON n=2 Two-fold zoom n=4 x4Live image/Playback image n=8 x8Live image/Playback image
Live/Playback image	CMD:RmmVS	ANS:RmmVSn	Necessary when using a non-Panasonic recorder with the Multiplexer board. Transmission command changes the monitor display between live and playback image. n=0 Live image n=1 Playback image
Play	CMD:RmmPL	ANS:RmmPL	mm=Monitor No.
Pause	CMD:RmmPA	ANS:RmmPA	mm=Monitor No.
Stop	CMD:RmmSPn	ANS:RmmSPn	mm=Monitor No. n=0 Stop playback n=1 Stop recording

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Still display	CMD:RmmSTcc	ANS:RmmSTccn	Available only with the Multiplexer Transmission command toggles still display ON or OFF. mm=Monitor No. cc=Camera No. (cc=00 when toggling multiscreen still ON or OFF) n=0 OFF n=1 ON
FF	CMD:RmmFF	ANS:RmmFF	mm=Monitor No.
REW	CMD:RmmRW	ANS:RmmRW	mm=Monitor No.
Forward field advance	CMD:RmmFA	ANS:RmmFA	mm=Monitor No.
Backward field advance	CMD:RmmRA	ANS:RmmRA	mm=Monitor No.
Record	CMD:RmmRC	ANS:RmmRC	mm=Monitor No.
Index	CMD:RmmSC	ANS:RmmSC	mm=Monitor No. Transmission command changes the monitor display between index and live image. Setup control commands (refer to p. 134) are available while the index is displayed.
Search editing area	CMD:RmmTMn	ANS:RmmTMn	Available only for Record List and Thumbnail Display of WJ-HD500 Series Transmission command toggles search editing area ON/OFF, or starts search. mm=Monitor No. n=0 OFF n=1 ON n=2 Search start
Group select	CMD:RmmTG	ANS:RmmTG	Available only for Record List and Thumbnail Display of WJ-HD500 Series Transmission command selects group to be displayed. mm=Monitor No.
Alarm search	CMD:RmmAS	ANS:RmmAS	Available only for Record List and Thumbnail Display of WJ-HD500 Series Transmission command toggles alarm search ON or OFF. mm=Monitor No. n=0 OFF n=1 ON

Inquiry

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Model No	QID	qid:WJ-SX150	Matrix switcher's model No.
Software version	QRV	qrv:*.** qrv:*/**/*.**	*.**=Matrix switcher's software version */**/*.**: Matrix switcher's software version/Multiplexer board's version
Alarm history	QAD	qad:nnn:YYYYMMDD hhmmss:cc:ee:s	nnn=alarm-event total number (000 to 100) *=Event of alarm n (n is a number). Display pattern: YYYYMMDDhhmmss:cc:ee:s YYYY=Year MM=Month DD=Day hh=Hour mm= Month ss=Second cc=Alarm number (associated with the camera number: 00 when the alarm is suspended) ee= Event 00=ALARM 01=ACK 02=RESET s=Daylight saving time (summer time) 0=OFF 1=ON
Video loss history	QVD	qvd:nnn: YYYYMMDD hhmmss:cc:ee:s	nnn=video-loss total number (000 to 100) *=Event of video loss n (n is a number). Display pattern: YYYYMMDDhhmmss:cc:ee:s YYYY=Year MM=Month DD=Day hh=Hour mm= Month ss=Second cc=Video loss number (associated with the camera number: 00 in case of camera switching pulse loss/recovery) ee= Event 00=Video loss 01=Video loss recovery 02=Camera switching loss 03=Camera switching recovery s=Daylight saving time (summer time) 0=OFF 1=ON

Miscellaneous Control

Item	Transmission Command (ASCII)	Response (ASCII)	Parameter (ASCII)
Alarm display	-	ALM:cc:a:yyyymmdd:hhmm ss:b	a=Event 0=ALARM 1=ACK 2=RESET yyyy=Year mm=Month dd=Day hh=Hour ss=Second b=Daylight saving time (summer time) 0=OFF 1=ON

■ Error Code List

● Matrix switcher and external devices

Error code(ASCII)	Error type	Meaning
ER000	No error	There is no error.
ER001	No associated command	There is no associated command.
ER002	Parameter invalid	The parameter's number, digit and range are invalid.
ER003	Receiver buffer's overflow	The receiver buffer has reached overflow capacity.

● Matrix switcher and external devices

Error code(ASCII)	Error type	Meaning
ER301	Command invalid	Invalid operation mode caused the command error.
ER302	Parameter invalid	The parameter's number, digit and range are valid, but the operation mode is invalid.
ER303	Gateway reception overflow	Reception buffer overflow has occurred on the other device during the gateway communication.
ER305	Gateway timeout error	Timeout error has occurred during the gateway communication.
ER309	Internal error	The internal processing error has happened.

Example: The command is valid but it cannot be executed.

- (1) The unit receives the zoom command while selecting a camera without electronic zoom function.

Transmission Command (ASCII) [STX] CMD:R01ZM [ETX]

Transmission Command (ASCII) [STX] ANS:R01ZM:ER301 [ETX]

WORKSHEETS

Gathering information for the initial configuration and recording on the following worksheets are recommended. Then, if settings need to be modified or updated later because of a change in surveillance needs or changes made in the system's components, those worksheets can be used to track revisions to your system.

You should keep all revised worksheets. Be sure to date them, in preparation for new entry or troubleshooting. Regardless of the system size, the worksheets can track past, current, and future configurations.

■ Instruction

Each worksheet's title is the same as that of WJ-SX150 Administrator Console.

For example, the "Operator Registration" worksheet supports the "Operator Registration" window.

The worksheets' rows, columns, and fields are arranged to match WJ-SX150 Administrator Console configuration requirements.

1. Reproduce the worksheets. You may need dozens of copies.
2. Reproduce instructions for the configuration windows . You can attach the portions of instructions to the worksheets.

To keep record of the initial configuration of the system, date the "Data Completed" line on the top left of each sheet.

■ Team Work

Worksheets are arranged alphabetically on the following pages, to make them easy to find.

For a team approach to information collection, decide how to distribute worksheets/tasks among several individuals.

■ Checklist

It is recommended that the worksheets be completed in the following sequence:

Date completed: __/__/__

● Recorder

Built in multiplexer board	Yes/No
Recorder Control	OFF/HD100/HD200/HD500/VCR
Unit Address	
EXT IN	Genlock off/on

● Tour Sequence

Tour __ / 16

Step	Camera	Preset position	Dwell time	Remark
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Tour __ / 16

Step	Camera	Preset position	Dwell time	Remark
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Step	Camera	Preset position	Dwell time	Remark
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

● **Group Sequence**

Group	Monitor 1	Monitor 2	Monitor 3	Monitor 4
1				
2				
3				
4				

● **Timer Event**

Schdule Mode	Daily		Every	Hour		Minute	
	Weekly		Every	Sunday			
				Monday			
				Tuesday			
				Wednesday			
				Thursday			
				Friday			
				Saturday			
Monthly		Every	Day#				
Action	Tour Sequence		Monitor#			Tour#	
	Spot Camera		Camera#			Preset Position#	

● **Camera Auto Cleaning**

Schdule Mode	Daily		Every	Hour		Minute	
	Weekly		Every	Sunday			
				Monday			
				Tuesday			
				Wednesday			
				Thursday			
				Friday			
				Saturday			
Monthly		Every	Day#				
Auto Cleaning Camera	Cam #1		Cam #5		Cam #9		Cam #13
	Cam #2		Cam #6		Cam #10		Cam #14
	Cam #3		Cam #7		Cam #11		Cam #15
	Cam #4		Cam #8		Cam #12		Cam #16

● **Daylight Saving Time**

	Start	End

	Start	End

● Alarm Mode

Alarm Mode	Dwell
OFF	
Sequence Mode	sec.
Hold Mode	

Alarm Input	
Camera Site Alarm	OFF / ON / REC only
Alarm Port	OFF / ON / REC only
Serial Port	OFF / ON / REC only
Mux Motion Det	OFF / ON / REC only

Auto Reset Time	sec.
-----------------	------

● Alarm Event

ALM#	Monitor#	Camera# / Tour sequence#	Preset position#
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

● Alarm Port

Alarm #	Alarm Port
1	N.O./N.C./Time
2	N.O./N.C./Time
3	N.O./N.C./Time
4	N.O./N.C./Time
5	N.O./N.C./Time
6	N.O./N.C./Time
7	N.O./N.C./Time
8	N.O./N.C./Time
9	N.O./N.C./Time
10	N.O./N.C./Time
11	N.O./N.C./Time
12	N.O./N.C./Time
13	N.O./N.C./Time
14	N.O./N.C./Time
15	N.O./N.C./Time
16	N.O./N.C./Time

● Operator Registration

Operator#	ID	Password	Level	Priority	Camera Access															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timer	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1			1	1																
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				

Camera Access

1: View & Control 2: View Only 3: Prohibited

● Level Table

Control	Level 1	Level 2	Level 3
SX150 Setup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Setup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alarm History Display	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video Loss History Display	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
System Status Display	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Single Alarm Reset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All Alarm Reset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alarm Suspend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera View	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Call Sequence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Program Preset Position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OSD Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recorder Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recorder Setup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

● Monitor Selection

	Monitor 1	Monitor 2	Monitor 3	Monitor 4
Controller 1(KB1)	OK / NG	OK / NG	OK / NG	OK / NG
Controller 2(KB2)	OK / NG	OK / NG	OK / NG	OK / NG
Controller 3(KB3)	OK / NG	OK / NG	OK / NG	OK / NG
Controller 4(KB4)	OK / NG	OK / NG	OK / NG	OK / NG
PC	OK / NG	OK / NG	OK / NG	OK / NG

● **Auto Log-in/Log-out**

Auto Log-in		Auto Log-out		Minute(s)
DATA 1		DATA 1		
DATA 2		DATA 2		
DATA 3		DATA 3		
DATA 4		DATA 4		

● **Cable Compensation/VD2**

Camera #	Cable Compensation	VD2	DATA
Cam 1	S / M / L	ON / OFF	ON / OFF
Cam 2	S / M / L	ON / OFF	ON / OFF
Cam 3	S / M / L	ON / OFF	ON / OFF
Cam 4	S / M / L	ON / OFF	ON / OFF
Cam 5	S / M / L	ON / OFF	ON / OFF
Cam 6	S / M / L	ON / OFF	ON / OFF
Cam 7	S / M / L	ON / OFF	ON / OFF
Cam 8	S / M / L	ON / OFF	ON / OFF
Cam 9	S / M / L	ON / OFF	ON / OFF
Cam 10	S / M / L	ON / OFF	ON / OFF
Cam 11	S / M / L	ON / OFF	ON / OFF
Cam 12	S / M / L	ON / OFF	ON / OFF
Cam 13	S / M / L	ON / OFF	ON / OFF
Cam 14	S / M / L	ON / OFF	ON / OFF
Cam 15	S / M / L	ON / OFF	ON / OFF
Cam 16	S / M / L	ON / OFF	ON / OFF

● **Camera Title**

	Camera ID (Up to 20 characters)
Cam 1	
Cam 2	
Cam 3	
Cam 4	
Cam 5	
Cam 6	
Cam 7	
Cam 8	
Cam 9	
Cam 10	
Cam 11	
Cam 12	
Cam 13	
Cam 14	
Cam 15	
Cam 16	

● Data Port

RS485 Port	Protocol	Baud Rate	RS485	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
RS485	485 CAM	bps	Camera Daisy																	
DATA 1	485 CAM/CU360C	bps																		
DATA 2	485 CAM/CU360C	bps																		
DATA 3	485 CAM/CU360C	bps																		
DATA 4	CU360C/PS-Data	bps																		

PS-Data mode (for DATA 4)	
Logout Time	sec.
Alarm Data	sec.
Wait Time	
Group Address	

● Multiplexer

Multi Monitor Out			
	Still Display		
	Border Color		
	Quad Shift		
	Secret View		
	Sequence Mode	Quad / 3+1 / 8+1	s

REC Out (Normal)			
	REC MODE	EXT	
		INT	Fields
	Title Display		
	Clock Display		

REC Out (Alarm)				
REC MODE				EXT
				INT
Dynamic REC	OFF / ALM-PRI / ALM-ONLY / GROUP			
GROUP				
	Cam	Cam	Cam	Cam
ALM 1				
ALM 2				
ALM 3				
ALM 4				
ALM 5				
ALM 6				
ALM 7				
ALM 8				
ALM 9				
ALM 10				
ALM 11				
ALM 12				
ALM 13				
ALM 14				
ALM 15				
ALM 16				

System		
	Camera SW Loss	
	Dummy Black	

Multiplexer Board Camera Title	
Cam1	
Cam2	
Cam3	
Cam4	
Cam5	
Cam6	
Cam7	
Cam8	
Cam9	
Cam10	
Cam11	
Cam12	
Cam13	
Cam14	
Cam15	
Cam16	

SPECIFICATIONS

Power Source:	120 V AC, 60 Hz
Power Consumption:	60 W
Camera Input (1 to 16):	1.0 V[p-p]/75 Ω composite video signal 0.5 V[p-p]/75 Ω data signal and 2.5 V[p-p]/75 Ω vertical timing pulse multiplexed
Camera Output (1 to 16):	1.0 V[p-p]/75 Ω composite video signal
Monitor Output (1 to 4):	1.0 V[p-p]/75 Ω composite video signal
External Input:	1.0 V[p-p]/75 Ω composite video signal
External Output:	1.0 V[p-p]/75 Ω composite video signal
RS-485 (Camera) Port:	RS-485 6-conductor modular jack
Data Port:	RS-485 6-conductor modular jack
Alarm Port:	25-pin D-sub connector
Serial Port:	9-pin D-sub connector
Camera Switching Input:	RCA pin jack
Ambient Operating Temperature:	-10 °C to +50 °C (14 °F to 122 °F)
Ambient Operating Humidity:	Less than 90 %
Dimensions:	420 mm (W) X 88 mm (H) X 350 mm (D) [16-9/16" (W) X 3-7/16" (H) X 13-3/4" (D)]
Weight:	6 kg (13.2 lbs.)

STANDARD ACCESSORIES

Rack Mounting Bracket	2 pcs.
Screws (M4 x 10)	4 pcs.
Power Cable	1 pc.
CD-ROM	1 pc.

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