

INSTRUCTION MANUAL

VSP-8500

System Controller



GB

About this manual

- Before installing and using this unit, please read this manual carefully. Be sure to keep it handy for later reference.
- This manual gives basic connections and operating instructions.

Contents

Introduction

Precautions (For UL)	2
Safety Cautions.....	3
Main features.....	7
Accessories.....	7

Preparations

Part names	8
Communication circuit and connection units	10
Communication settings.....	12
A Controlling a Sanyo camera using a Sanyo DVR	13
B Controlling a Sanyo camera using a Sanyo DVR and directly controlling a camera	15
C Directly controlling a Sanyo camera	17
D Directly controlling a competitor's camera	19
E Controlling Videotec Matrix SM328S	21

Menu settings.....	23
1 Language settings.....	24
2 Protocol settings	24
3 Device assignment settings	25
A DVR assignment and communication line settings.....	25
B Camera assignment and communication line settings.....	26
4 Address settings of this unit	27
5 Password settings.....	28
A Password registration when power is turned on	28
B Password registration on the menu screen.....	29
C Password registration to key lock the operating buttons	29
■ Key lock and cancel method.....	30
■ Cancel the various passwords.....	30

6 Other function settings	30
A Automatically switching the camera image connected to the DVR to the DVR's main monitor when calling the address configured to the camera	31
B Displaying the communications error message on the menu display	31
C Sounding the warning buzzer when there is an input error.....	32
D Configuring and adjusting the J stick	32
E Adjusting the contrast of the menu display	33
F Functionality test of the operating buttons	33
7 Initial settings	34

Operation

Operating the hard disk digital recorder	35
■ Address settings	35
■ DVR channel switching	36
■ Automatic switching of the image in the monitor.....	36
■ DVR menu settings	36
■ Operations from this unit using DVR operating buttons	37
■ Operations using SHIFT button combinations	38
■ Operations using SET button combinations.....	39
Camera operation	40
■ Accessing a connected camera	40
■ Operating the camera from this unit using the J stick and camera operating buttons	41
■ Operates the pan, sequence and tour operations of the PTZ camera	43

Others

Specifications	44
■ Outer Dimensions	44
Appendix	45
■ Communication table	45
■ Special code table.....	46
• ERNITEC SATURN	46
• MARK MERCER	47
• PELCO	49
• SENSORMATIC.....	51
■ Sanyo camera AUX command table.....	52
■ Camera key command table.....	53

Precautions (For UL)



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: Changes or modifications not expressly approved by the manufacturer may void the user's authority to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generated, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For the customers in Canada

This class B digital apparatus complies with Canadian ICES-003.

SERVICE

This unit is a precision instruments and if treated with care, will provide years of satisfactory performance. However, in the event of a problem, the owner is advised not to attempt to make repairs or open the cabinet. Servicing should always be referred to your dealer or Sanyo Authorized Service Center.

Safety Cautions

Main Unit

WARNING

■ Never use when unit emits smoke, unusual noises, or unusual smells.

Using under these abnormal conditions can cause fires and electric shock.

Immediately unplug the AC adapter power plug from the outlet, confirm that the smoke stops, and then request repairs from the installer or the purchasing source.

Never attempt to repair the unit on your own, as this is dangerous.

■ Never disassemble or modify

- Touching the internal parts is dangerous, and can cause fires and electric shock.
- Request internal inspection, adjustment, and repairs from the installer or the location of purchase.

■ Never get unit wet

- This unit is not waterproof or dustproof. Do not install where exposed to rain, excessive humidity, or excessive dust. This can cause fires and electric shock.
Do not install in a bath or shower room.
- In the event that water enters the unit interior, unplug the AC adapter power plug from the outlet, and contact the installer or location of purchase. Continued use can cause fires, electric shock, and unit breakdowns.

■ Do not use during thunderstorms

Do not use this during thunderstorms. In particular, never touch the AC adapter or connection cables. This can cause electric shock.

■ Do not install in unstable location

- The unit may fall or topple, causing injuries or unit breakdowns.
- In the event that the unit is dropped or the cabinet is broken, unplug the AC adapter power plug from the outlet, and contact the installer or location of purchase.
Continued use can cause fires or electric shock.

■ Do not use in locations with explosion risk

Do not use in locations where flammable gas or explosive gas may exist in the atmosphere. This can cause ignition and explosion.

Fogging (Condensation)

Drops of water form on the outside of a glass containing very cold water. Similarly, droplets can form on the interior of this unit. This is called fogging, or condensation. Using the unit during fogging can cause a unit breakdown.

Be careful of fogging when the environment temperature changes suddenly, such as when heating the room quickly.

Fogging does not occur while electrical current is present.

When fogging could occur...

Turn OFF the unit power, and leave the unit in its installed position for one to two hours before use.

Provided AC Adapter

CAUTION

■ Transport with care

Unplug the AC adapter power plug from the outlet, confirm that connection cables are disconnected, and transport carefully to avoid dropping the unit or subjecting it to severe shock.

■ Cautions for care or long-term disuse

Unplug the AC adapter power plug from the outlet. Caring for the unit with the AC adapter connected can cause electric shock.

■ Cleaning the interior

For cleaning the interior, consult the installer or the location of purchase. When dust has accumulated inside the unit over time without cleaning, this can cause fires or unit breakdowns.

■ Installation location

This unit is comprised of precision electronic parts. Never install in the locations described below, as this can cause operation errors and unit breakdowns.

- In direct sunlight
- In extreme humidity or where humidity fluctuates wildly
- Where water could be splashed
- Near heating/cooling equipment or humidifiers.
- Where cold air from air conditioners contact the unit directly
- Where dust is extreme
- Near a spark source
- Near magnetic objects
- Near explosive materials
- Where subject to vibration

DANGER

■ Only use with 100 to 240V power source voltage.

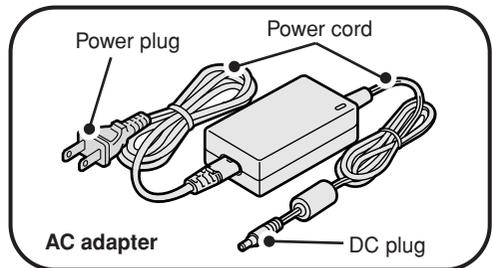
This can cause fires and electric shock.

■ Never disassemble or modify

- Touching the internal parts is dangerous, and can cause fires and electric shock.
- Never use as a DC power source unit.

■ Never get unit wet

- Never submerge in water or get unit wet. This can cause fires and electric shock.
- Do not use in a bath or shower room.
- In the event that water enters the unit interior, unplug the power plug from the outlet, and contact the installer or location of purchase. Continued use can cause fires, electric shock, and unit breakdowns.



Provided AC Adapter

WARNING

■ Use only the provided AC adapter

Use the provided AC adapter. Using a different AC adapter can cause fires or electric shock, due to differences in power cord current capacity.

■ Never touch the AC adapter with wet hands

This can cause electric shock.

■ Power cord

Never bundle up the power cord during use. This can cause overheating, fires and electric shock.

■ When using an extension cord

Be careful that the total power consumption of the connected equipment does not exceed the rated power of the extension cord.

Exceeding the rated power can cause fires.

■ Power plug

Never use while abnormality is not corrected.

The following situations can cause fires or electric shock.

- Never allow dust to accumulate on power plug or in outlet insertion holes. Dust and dirt on either contact portion can cause an electric short or overheating. Wipe off with a dry cloth.
- When using an outlet where humidity is high or condensation forms easily, or an outlet in a kitchen or dusty environment, unplug the power plug regularly and wipe off the dust and dirt adhering to the plug.
- Never pull the power cord to unplug the power plug.
Always hold the power plug when unplugging.
- Never leave the power plug plugged into the outlet while the DC plug is disconnected from the power source input terminal on this unit. This can cause electric shock when touching with wet hands, or when an infant places the power plug in his/her mouth.
- Never use an outlet if the power plug is fully seated but is still loose in the outlet. This can cause fires due to overheating.
- Never use the power plug when it is damaged. When the plug has poor contact, consult the installer or the location of purchase.

CAUTION

■ Do not connect to other equipment

The provided AC adapter and power cable are exclusively for use with this unit. Connecting to other equipment can cause fires or electric shock.

■ Power cord

Damaging the power cord in the following manner can cause fires or electric shock.

When the power cord is damaged, consult the installer or the location of purchase.

- Never place a heavy object on the power cord, or expose to heating equipment, heated surfaces (front surface of heaters), or direct sunlight.
- Do not stress the power cord with the weight of the AC adapter unit.
- Never bundle up the power cord during use.
- Never bend, modify, or staple the power cord.

■ Power cord connection

Route the power cord and connecting cables with care. Tripping over power cords can cause injuries due to falls or falling equipment.

■ Connect power plug securely to outlet

Using with an incomplete connection can cause fires due to overheating.

■ Do not place in unstable location

Place the unit in a stable location.

Placing the unit in an unstable location can cause injuries or unit breakdowns, due to falling or toppling equipment.

Always Observe These Rules for Proper Use

■ Caring for the Unit

- 1 Unplug the power plug from the outlet.
- 2 Gently wipe away any contamination, using a soft cloth.

When heavily soiled...

- 3 Immerse a cloth in neutral detergent thinned with water, wring it well, and wipe the unit. Finish with a dry cloth.

■ Cautions

- Never use benzene or paint thinner to clean the unit. The unit could discolor, or paint could be removed.
- When using chemically treated cloths, note the cautions on the package.
- Do not expose the unit to volatile chemicals such as pesticides. Do not leave the unit in contact with rubber or plastic products for long periods. The unit could discolor, or paint could be removed.

■ When not using for long periods

Unplug the power plug from the outlet.

However, this could damage the functions. Connect the power and operate the unit occasionally.

Main features

- Operate the pan, tilt, and zoom using the joystick
- Different languages (English, Italian, French, German, Spanish and Japanese) can be selected.
- Extensively control the high-speed dome camera and receiver
- The RS485 (VIDEO/TELEMETRY) communication line can be connected.
- There are three security settings.

Password settings when starting:

The password input display appears when the power is turned on.

Password settings:

The password input display appears when configuring the various devices.

Key lock settings

Trademark

Brands and product names described in this document are trademarks or registered trademarks of their respective companies.

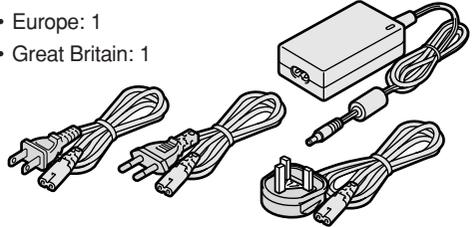
Licensed Under U.S. Patent No. 4974088

Accessories

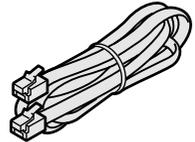
Check that all accessories are included.

AC adapter/power cord x 3

- North America: 1
- Europe: 1
- Great Britain: 1

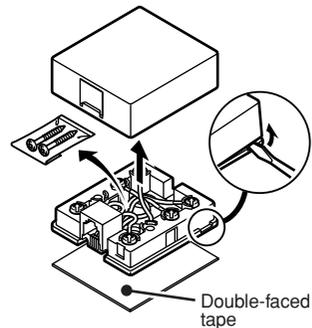


Modular cable x 6
(Cross type: 150cm)



- Communication conversion connectors x 6
- Screws x 2
- Double-faced tape x 1

(How to disassemble)

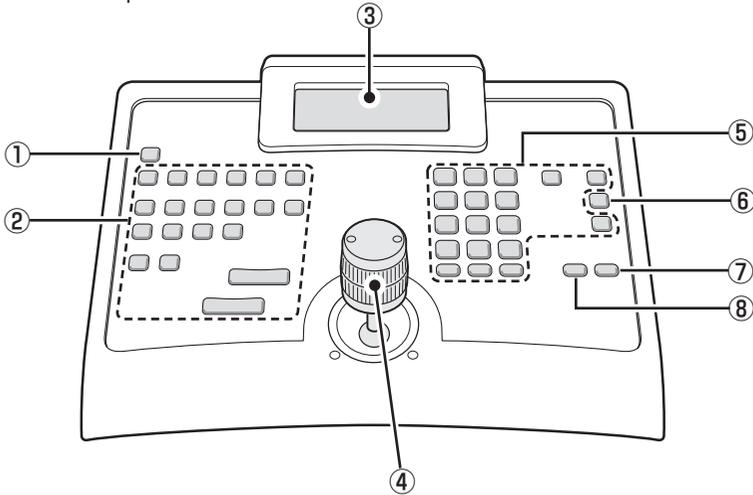


Part names

Front

This unit does not have a power switch.

The power is turned on or off by plugging or unplugging in the DC plug of the AC adapter.



① ESC button (Escape)

This is used to return to the previous menu after configuring the menu or to return to the initial display.

② Camera operating button (P41)

③ Menu display

- When the power of the unit is turned on, the initial display appears after the version information is displayed.
- A message, i.e. “Line V Com. Error”, appears at the bottom of the initial display when there is an input error, i.e. numeric button. In addition, a “Buzzer” can also be configured to indicate an input error. (P32)

(Version information)

SANYO VSP-8500
System Controller

(Initial screen)

DVR 5
CH ???
CAM No. ???

④ Joystick (J stick)

This controls the pan, tilt, and zoom operations of the camera. The joystick is also used to select items displayed in the menu.

- Left/Right: Pan
- Forward/Back: Tilt
- Turn: Zoom

⑤ DVR operating button (P37)

DVR: Hard disk digital recorder

⑥ Channel/Camera button

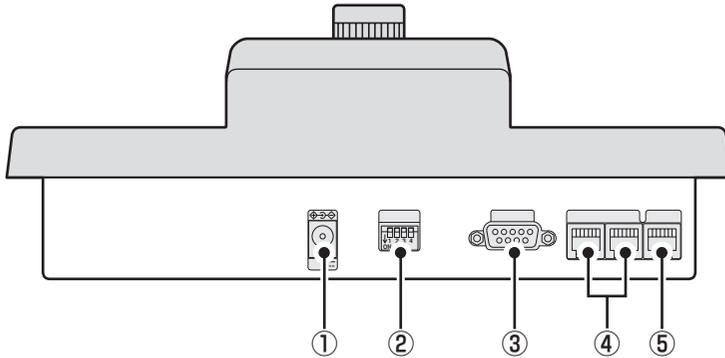
⑦ ENTER button

This button is used to enter the menu settings.

⑧ CLEAR button

This button is used to correct any input errors, i.e. passwords.

Rear

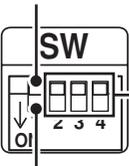


① Power terminal (DC 12V)

Connect the DC terminal to the AC adapter provided.

② Dip switch (SW)

Use these settings when using this unit as a system controller. (OFF)



These switches are used to set each terminal setting ON or OFF. (Terminal switch)

These settings are used when upgrading the system on this unit using a PC.

③ PC connection terminal (COM: RS-232C)

This terminal is used to connect to a PC.

④ Camera communication terminal (TELEMETRY A/B)

Use the modular cable, accessory or sold separately, and the communication conversion connector, included, to connect to this terminal.

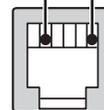
- **Terminal A:** Connects to the camera cable.
- **Terminal B:** Connects to the camera cable.

⑤ Video communication terminal (VIDEO)

Use the modular cable, included or sold separately, and the communication conversion connector, included, to connect the video device, i.e. DVR, to this unit.

④/⑤ : RS485 (RJ-11) terminal

Signal B — Signal A



Communication circuit and connection units

A hard disk digital recorder can be connected to the video communication terminal (VIDEO) or multiple PTZ or zoom cameras can be connected to the camera communication terminal (TELEMETRY A/B) at the back of this unit.

Address and terminal settings must be configured after connecting each device. Refer to the Instruction Manual regarding the settings of the connection devices.

■ Connection units

- Maximum number of connection units for this unit: 5 (Address 0-4)
- Maximum number of connections between this unit and the video communication terminal: 99 (Address 1-99, Hard disk digital recorder 1-98)
- Maximum number of connections between this unit and the camera communication terminal: 255 (SSP address 1-127)
- Maximum number of total system connections: 256 units

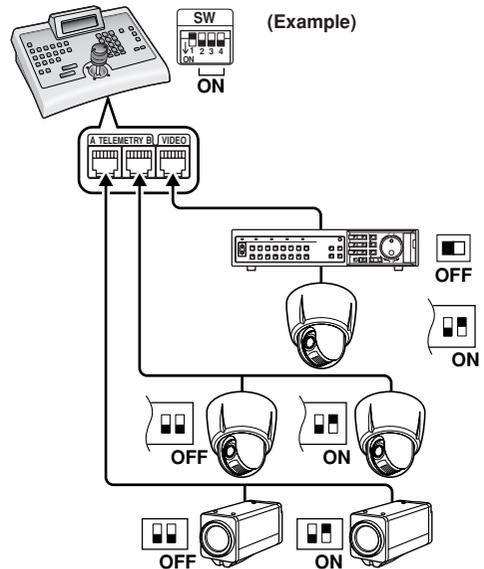
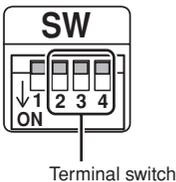
■ Terminal settings

When multiple devices are connected by a loop to the video communication terminal and to the camera communication terminals A/B of this unit, data is not properly transmitted as data is reflected at both ends of the connected devices, affecting other data.

For proper communication, the terminal switch at each end of the connected devices must be **ON** and the terminal switches of all the devices connected by a loop within both ends must be **OFF**.

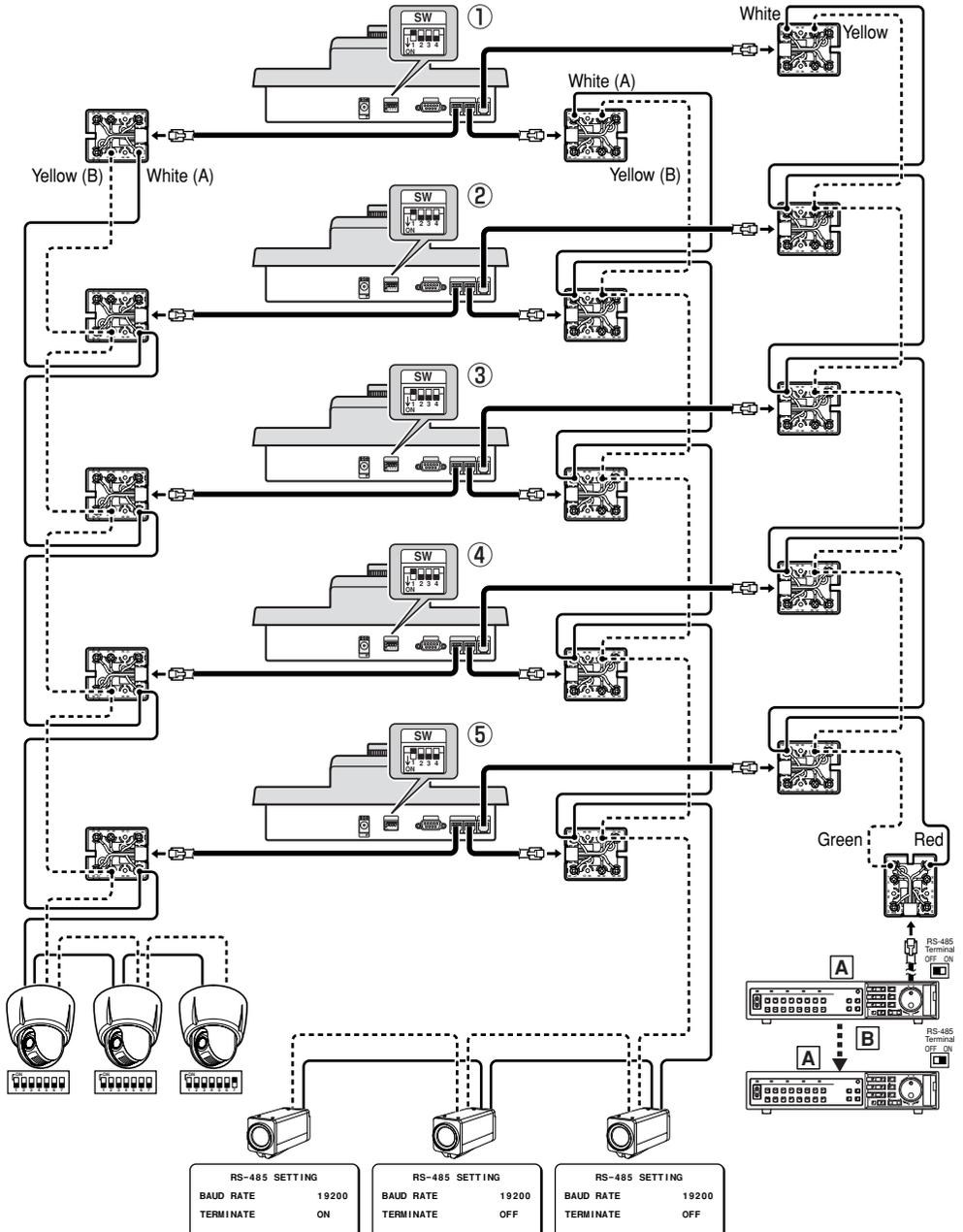
Dip switches (SW) 2 to 4 on the rear panel are the terminal setting switches.

- SW1: For selecting normal operation
- SW2: For terminate setting on camera communication terminal A
- SW3: For terminate setting on camera communication terminal B
- SW4: For terminate setting for video communication terminal



Communication circuit and connection units (Continued)

Example



Communication settings

Ensure that the power to all the device is turned off before connecting.
Refer to the various pages for details.

A Controlling a Sanyo camera using a Sanyo DVR (P13)

☞ Using the video communication terminal

B Controlling a Sanyo camera using a Sanyo DVR and directly controlling a camera (P15)

☞ Using the video communication terminal and the camera communication terminal B

C Directly controlling a Sanyo camera (P17)

☞ Using the camera communication terminal A

D Directly controlling a competitor's camera (P19)

☞ Using the camera communication terminal A

E Controlling Videotec Matrix SM328S (P21)

☞ Using the video communication terminal

Communication settings (Continued)

A Controlling a Sanyo camera using a Sanyo DVR

1 Connect the connection method **1 2 3** and configure the settings (P14)

2 Press the MENU button.
MAIN MENU displays.

3 Select "Lines Setup" using the J stick (down) and press the ENTER button.
LINES SETUP displays.

```
MAIN MENU
Language: English
▶Lines Setup
✓ Lines Assignment
```

```
LINES SETUP
▶Line V
Line A
Line B
```

4 Select "Line V" using the J stick and press the ENTER button.
LINE V displays.

```
LINE V
▶Protocol:Sanyo SSP
Baudrate:19200
```

Set the Baudrate as necessary.

5 Select "Sanyo SSP" as the protocol using the J stick (right) and press the ESC button.
LINES SETUP displays.

```
LINES SETUP
Line V
▶Line A
Line B
```

6 Select "Line A" using the J stick (down) and press the ENTER button.
LINE A displays.

```
LINE A
▶Protocol:Video
Baudrate:---
```

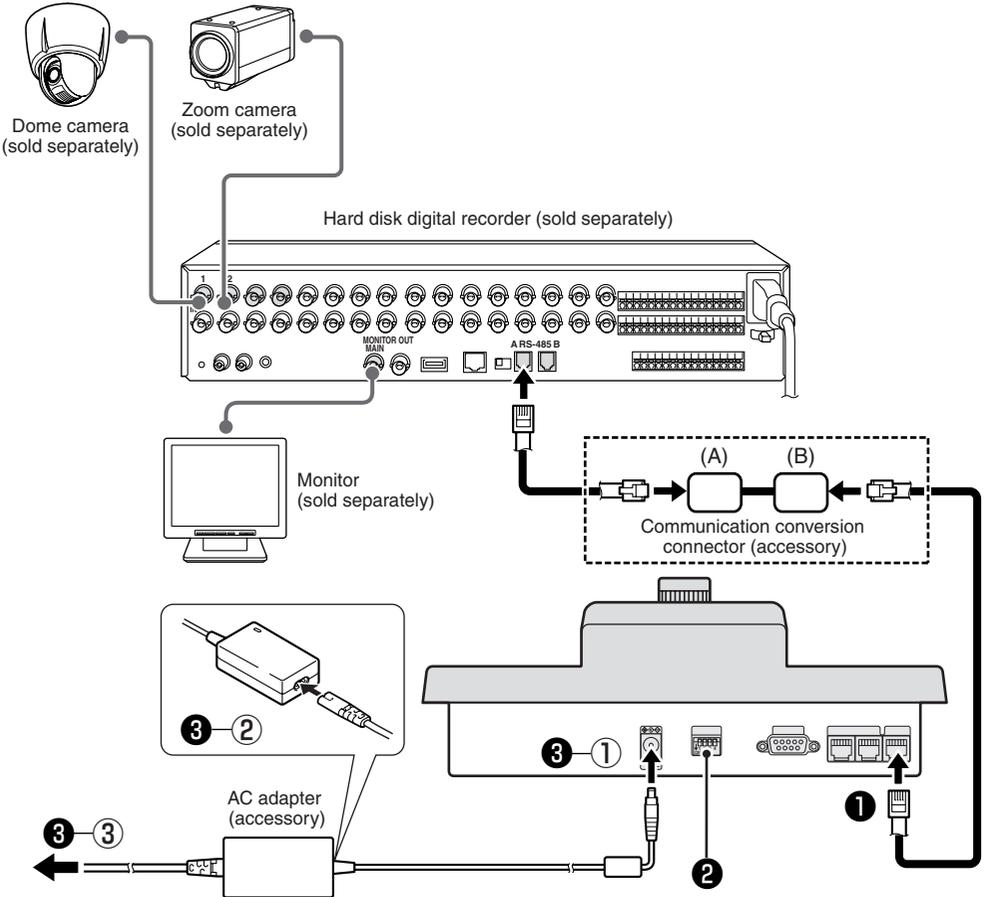
7 Select "Video" as the protocol using the J stick (right) and repeatedly press the ESC button.
Initial display appears.

```
LINE A
▶Protocol:Video
Baudrate:---
```

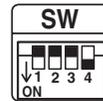
```
DVR      1
CH       ???
CAM No.  ???
```

8 Operate the DVR.
Refer to P37 for details.

Connection method

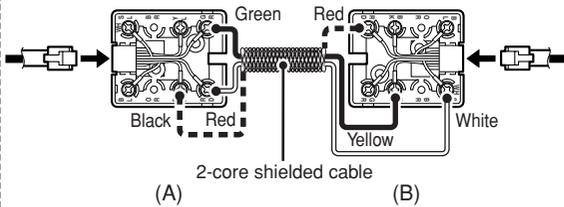


Terminal settings



- SW1: OFF (fixed)
- SW2: OFF (Camera A)
- SW3: OFF (Camera B)
- SW4: ON (Video)

Connecting the communication conversion connectors



Communication settings (Continued)

B Controlling a Sanyo camera using a Sanyo DVR and directly controlling a camera

- 1** Connect the connection method **① ② ③** and configure the settings (P16)

- 2** Press the MENU button.
MAIN MENU displays.

- 3** Select "Lines Setup" using the J stick (down) and press the ENTER button.
LINES SETUP displays.

```
MAIN MENU
Language: English
▶Line Setup
✓ Lines Assignment
```

```
LINES SETUP
▶Line V
Line A
Line B
```

- 4** Select "Line V" using the J stick and press the ENTER button.
LINE V displays.

```
LINE V
▶Protocol: Sanyo SSP
Baudrate: 19200
```

Set the Baudrate as necessary.

- 5** Select "Sanyo SSP" as the protocol using the J stick (right) and press the ESC button.
LINES SETUP displays.

```
LINES SETUP
Line V
▶Line A
Line B
```

- 6** Select "Line A" using the J stick (down) and press the ENTER button.
LINE A displays.

```
LINE A
▶Protocol: Video
Baudrate: ---
```

- 7** Select "Video" as the protocol using the J stick and press the ESC button.
LINES SETUP screen displays.

```
LINES SETUP
Line V
Line A
▶Line B
```

- 8** Select "Line B" using the J stick (down) and press the ENTER button.
LINE B screen displays.

```
LINE B
▶Protocol: Sanyo SSP
Baudrate: 19200
```

- 9** Select "Example: Sanyo SSP" as the protocol using the J stick (right) and repeatedly press the ESC button.
Initial display appears.

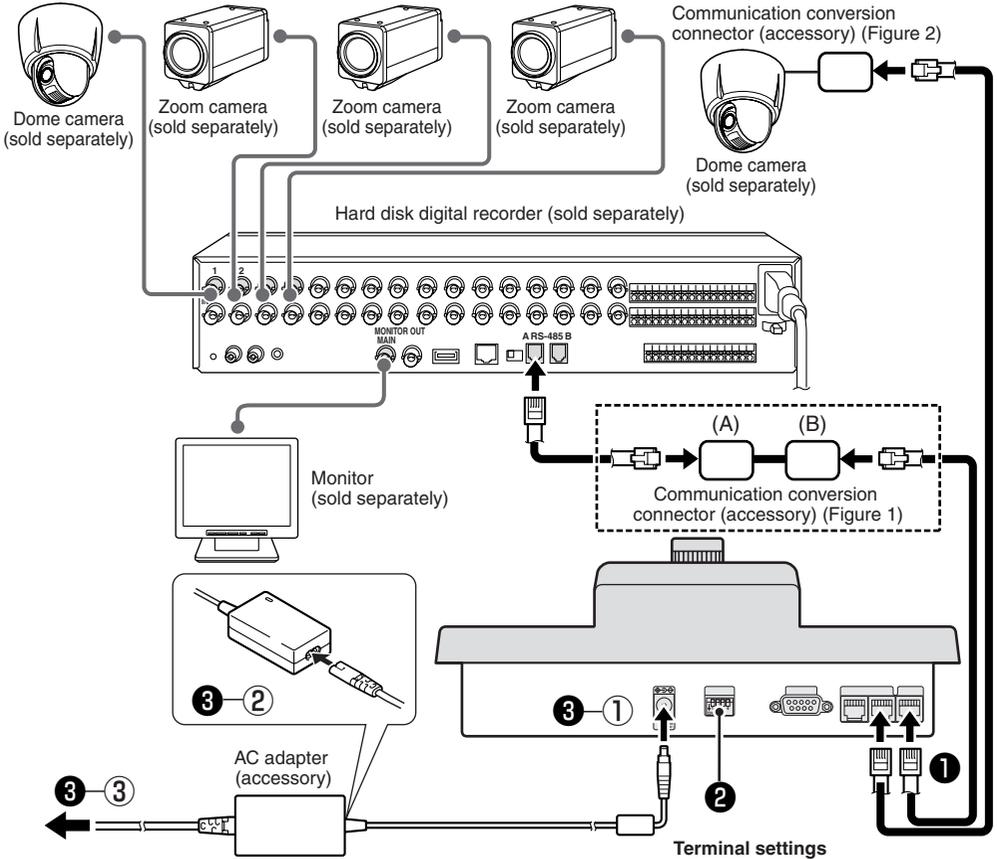
```
LINE B
▶Protocol: Sanyo SSP
Baudrate: 19200
```

```
DVR      1
CH       ???
CAM No.  ???
```

- Select the corresponding protocol when operating other cameras.

- 10** Operate the DVR.
Refer to P37 for details.

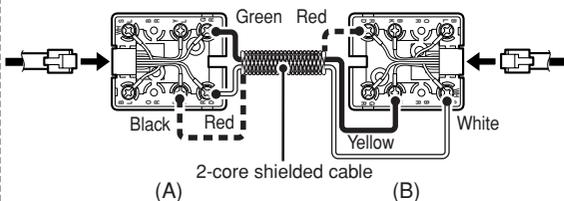
Connection method



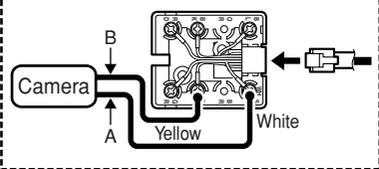
Terminal settings

SW	
SW1	OFF (fixed)
SW2	OFF (Camera A)
SW3	ON (Camera B)
SW4	ON (Video)

Connecting the communication conversion connectors (Figure 1)



Connecting the communication conversion connectors (Figure 2)



Communication settings (Continued)

C Directly controlling a Sanyo camera

1 Connect the connection method **1 2 3** and configure the settings (P18)

2 Press the MENU button.
MAIN MENU displays.

3 Select “Lines Setup” using the J stick (down) and press the ENTER button.
LINES SETUP displays.

```
MAIN MENU
Language: English
▶Lines Setup
✓ Lines Assignment
```

```
LINES SETUP
▶Line V
Line A
Line B
```

4 Select “Line V” using the J stick and press the ENTER button.
LINE V displays.

```
LINE V
▶Protocol:Sanyo SSP
Baudrate:19200
```

Set the Baudrate as necessary.

5 Change the protocol to “---” from “Sanyo SSP” using the J stick (right) and press the ESC button.
LINES SETUP displays.

```
LINE V
▶Protocol:---
Baudrate:---
```

```
LINES SETUP
Line V
▶Line A
Line B
```

6 Select “Line A” using the J stick (down) and press the ENTER button.
LINE A displays.

```
LINE A
▶Protocol:Video
Baudrate:---
```

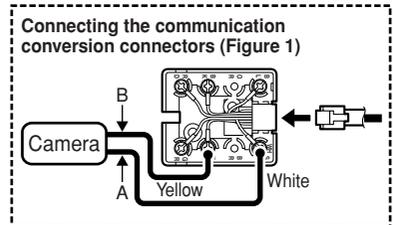
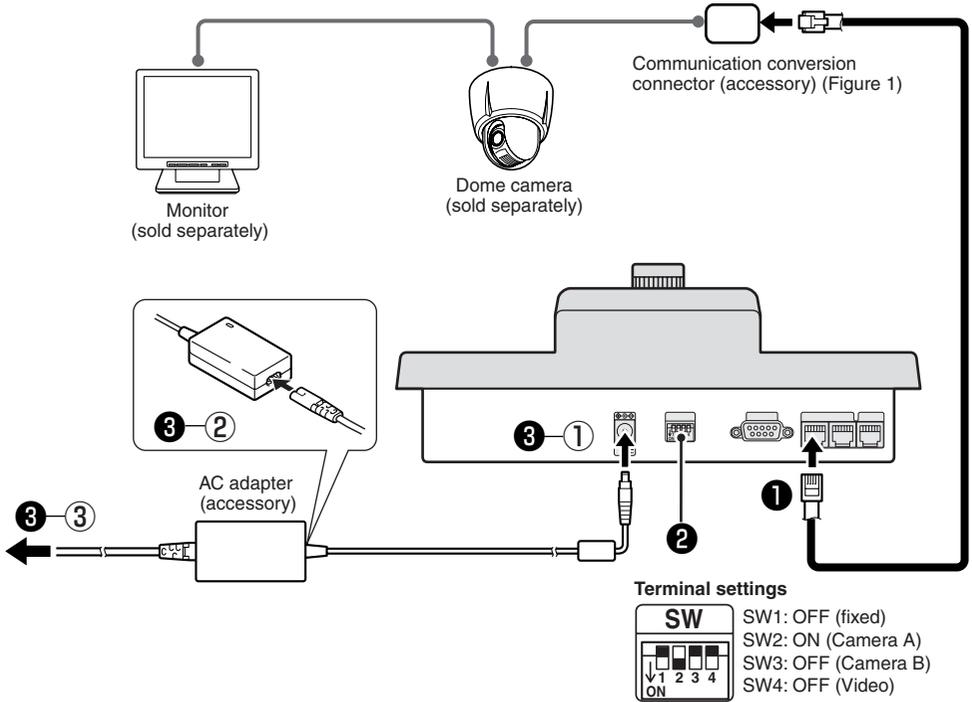
7 Select “Sanyo SSP” as the protocol using the J stick (right) and repeatedly press the ESC button.
Initial display appears.

```
LINE A
▶Protocol:Sanyo SSP
Baudrate:19200
```

```
CAM No.   ???
```

8 Operate the camera
Refer to P41 for details.

Connection method



Communication settings (Continued)

D Directly controlling a competitor's camera

1 Connect the connection method ① ② ③ and configure the settings (P20)

2 Press the MENU button.
MAIN MENU displays.

3 Select "Lines Setup" using the J stick (down) and press the ENTER button.
LINES SETUP displays.

```
MAIN MENU
Language: English
▶Lines Setup
✓ Lines Assignment
```



```
LINES SETUP
▶Line V
Line A
Line B
```

4 Select "Line V" using the J stick and press the ENTER button.
LINE V displays.

```
LINE V
▶Protocol:Sanyo SSP
Baudrate:19200
```

Set the Baudrate as necessary.

5 Change the protocol to "---" from "Sanyo SSP" using the J stick (right) and press the ESC button.
LINES SETUP displays.

```
LINE V
▶Protocol:---
Baudrate:---
```



```
LINES SETUP
Line V
▶Line A
Line B
```

6 Select "Line A" using the J stick (down) and press the ENTER button.
LINE A displays.

```
LINE A
▶Protocol:Video
Baudrate:---
```

7 Select "Example: Pelco D" as the protocol using the J stick (right) and repeatedly press the ESC button.
Initial display appears.

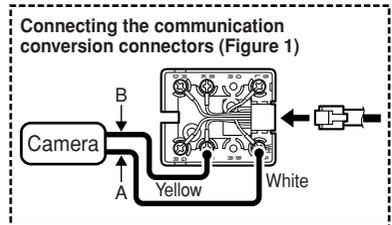
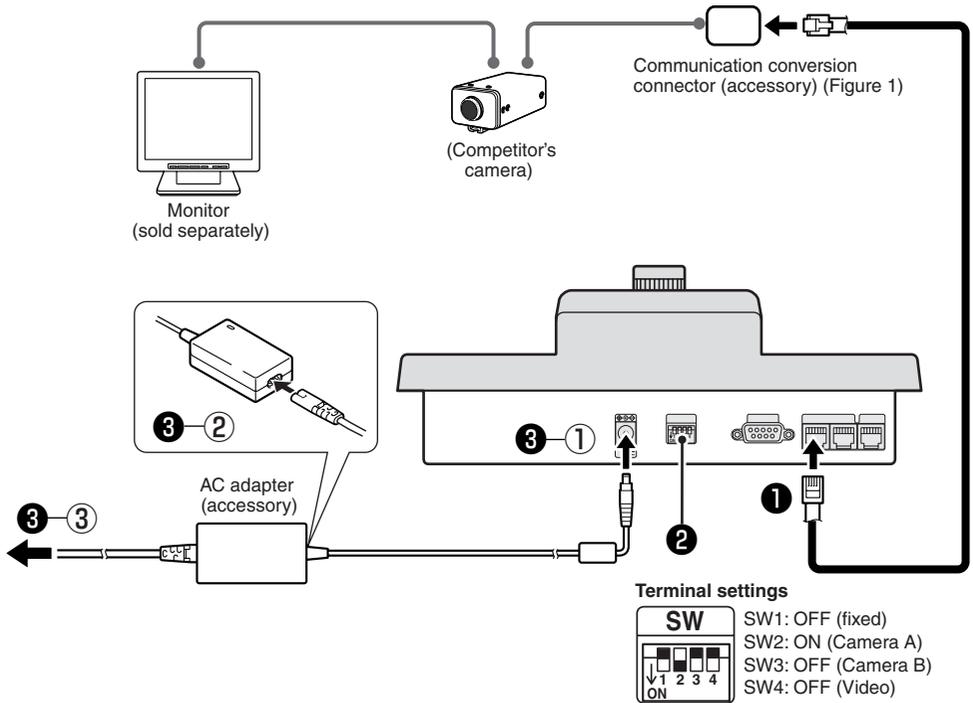
```
LINE A
▶Protocol:Pelco D
Baudrate:2400
```



```
CAM No.   ???
```

8 Operate the camera
Refer to P41 for details.

Connection method



Matrix SM328S setup

- 1** Press the MENU button while pressing the SET button.
The Matrix menu screen opens.
- 2** Press the END button.
The entry screen for numeric buttons displays.

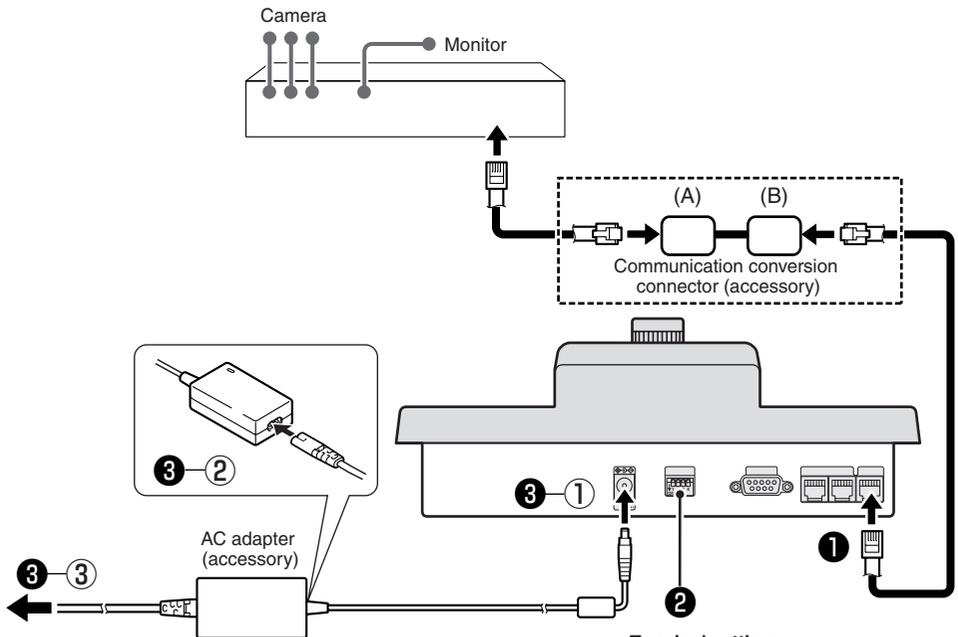
- 3** Select the menu using the numeric buttons (i.e.: 7) from the menu screen.

The entry screen for numeric buttons displays.

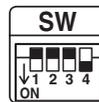
- J stick:
Can be operated up/down and left/right.
- Numeric buttons:
1-0 can be entered
- +/- buttons
- CLEAR, ENTER:
Menu selection

Refer to the Matrix SM328S Instruction Manual for details regarding operation.

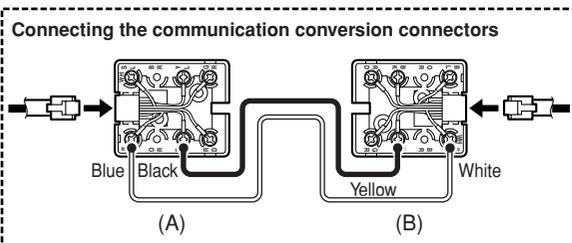
Connection method



Terminal settings

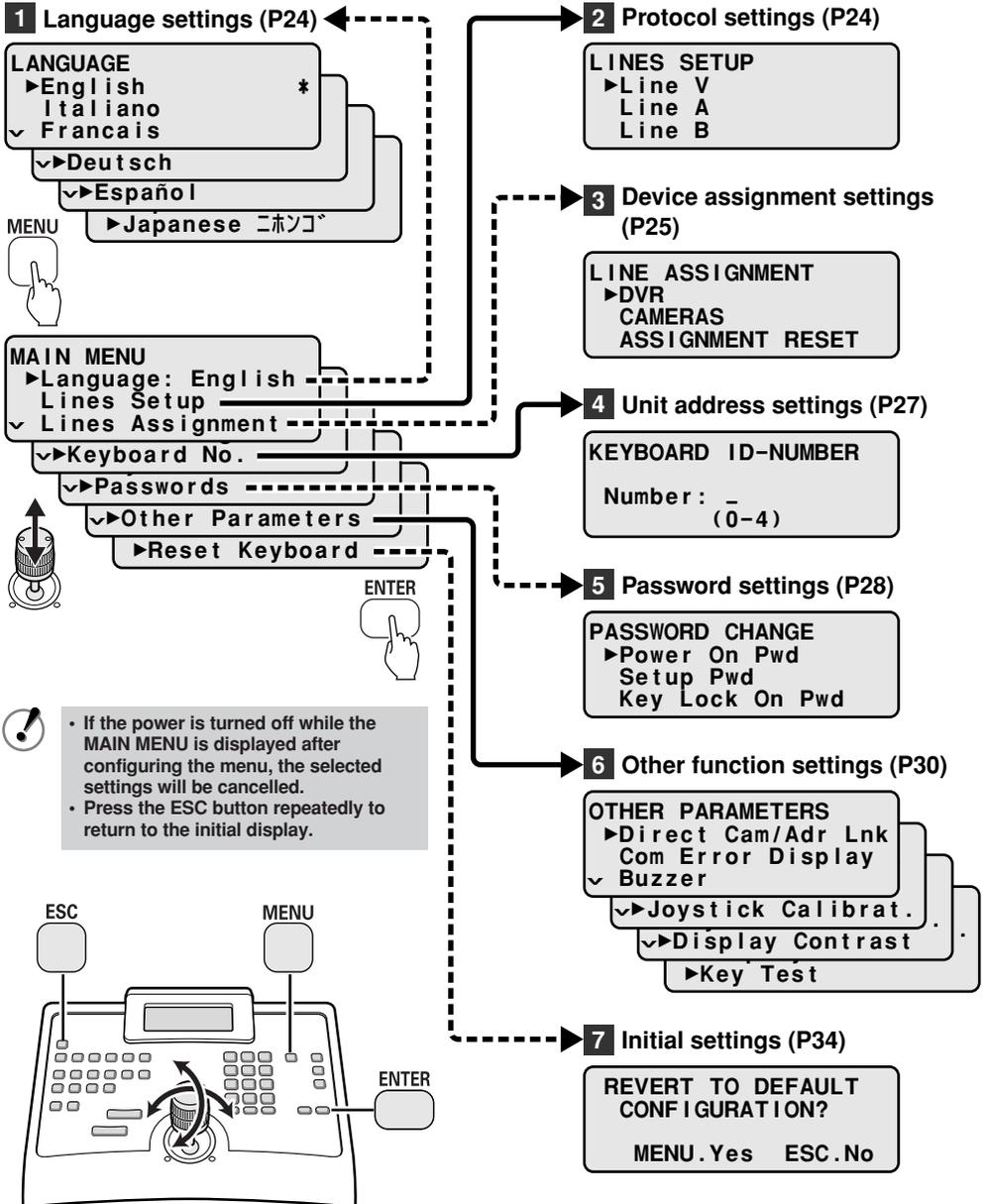


- SW1: OFF (fixed)
- SW2: OFF (Camera A)
- SW3: OFF (Camera B)
- SW4: ON (Video)



Menu settings

Press the MENU button to display the menu on the menu display.



1 Language settings

1 Press the MENU button.

MAIN MENU displays.



```

MAIN MENU
▶Language: English
  Lines Setup
  ✓ Lines Assignment
    
```

2 Select "Language" using the J stick (up/down) and press the ENTER button.



```

LANGUAGE
▶English *
  Italiano
  ✓ Francais
    
```

3 Select a language using the J stick (up/down) and press the ENTER button.

The language display changes to the selected language.

4 Press the ESC button.

The set up is recorded and the MAIN MENU is displayed.



2 Protocol settings

1 Select "Lines Setup" using the J stick (up/down) and press the ENTER button.

LINES SETUP displays.

```

MAIN MENU
  Language: English
  ▶Lines Setup
  ✓ Lines Assignment
    
```



```

LINES SETUP
▶Line V
  Line A
  Line B
    
```

2 Select "Line V" using the J stick (up/down) and press the ENTER button.

This displays the protocol selections for each line.



Select "Line A" when the DVR is not connected.

```

LINE V
▶Protocol:Sanyo SSP
  Baudrate:19200
LINE A
▶Protocol:Video
  Baudrate:---
LINE B
▶Protocol:Sanyo SSP
  Baudrate:19200
    
```

3 Select "Protocol" using the J stick (Right).

Baudrate also switches simultaneously.

- **Connecting the camera through the DVR**
Set the protocol used in Line A to "Video".

- **Changing the Baudrate**

Select "Baudrate" using the J stick (up/down) and select the preset value using the J stick (right).

4 Press the ESC button repeatedly.

Returns to initial display.

Change the other lines using the same steps.

Menu settings (Continued)

3 Device assignment settings

- 1 Select "Lines Assignment" using the J stick (up/down) and press the ENTER button.

LINES ASSIGNMENT displays.

```
MAIN MENU
Language: English
Lines Setup
↳ Lines Assignment
```

```
LINE ASSIGNMENT
▶ DVR
CAMERAS
ASSIGNMENT RESET
```

- 2 Select the assignment device (DVR or CAMERAS) using the J stick (up/down) and press the ENTER button.

(DVR)

```
DVR ASSIGNMENT
▶ DVR 1 : Line V
Line: 1.Video 0.None
MENU.Mark Position
```

(Camera)

```
CAMERA NUMBER 1
Line A Phys.Adr 1
DVR 1 Channel 1
ENTER to modify
```

A DVR assignment and communication line settings

- 1 Press the DVR button, enter the number using the numeric buttons (i.e.: 55), and press the ENTER button (assignment: 1-99).

```
DVR ASSIGNMENT
▶ DVR :
Line: 1.Video 0.None
MENU.Mark Position
```

```
DVR ASSIGNMENT
▶ DVR 55: Line V
Line: 1.Video 0.None
MENU.Mark Position
```

- The J stick (up/down) can be used to display the assignment numbers.
- 2 **Communication line settings**
Press "0" or "1" using the numeric buttons.
 - 0: Displays Not Used.
 - 1: Displays Line V.

■ Simultaneously changing the assigned DVR to the same line

Example: Collectively changes the DVR's 3 to 9 Line V to "Not used".

Only sequential settings can be configured.

- 1 Select the first DVR number (i.e.: 3) to configure to Line V using the J stick and press the MENU button.
The bottom of the display changes to "(Position Marked)".

```
DVR ASSIGNMENT
▶ DVR 3 : Line V
Line: 1.Video 0.None
(Position Marked)
```

- 2 Select the last DVR number (i.e.: 9) of Line V using the J stick and select using the numeric buttons (i.e.: 0).

Line selection:

- 1: Video (Line V)
- 0: None (Not used)

DVR 3 to 9 are collectively changed to "Not used".

```
DVR ASSIGNMENT
▶ DVR 9 : Line V
Line: 1.Video 0.None
MENU.Mark Position
```

Selected item

B Camera assignment and communication line settings

- Press the CH/CAM button, enter the number using the numeric buttons (i.e.: 22), and press the ENTER button (assignment: 1-255).

CAMERA NUMBER Line _ Phys.Adr DVR _ Channel ENTER to modify	→	CAMERA NUMBER 22 Line A Phys.Adr 22 DVR 2 Channel 6 ENTER to modify
--	---	--

- The J stick (up/down) can be used to display the assignment numbers.

- Press the ENTER button.

The "Line" cursor blinks.

CAMERA NUMBER 22 Line <u> </u> Phys.Adr 22 DVR 2 Channel 6 Line: 1.A 2.B 0.None

- Communication line settings

Press "0", "1", or "i.e.: 2" using the numeric buttons.

Line selection:

- 0: None (Not Used) 1: A (Line A)
- 2: B (Line B)

The "Phys.Adr" cursor blinks.

- Enter the address (i.e.: 5) using the numeric buttons and press the ENTER button (address: 1-255).

The "DVR" cursor blinks.

- Enter "0" for cameras that cannot be controlled by protocol.

CAMERA NUMBER 22 Line B Phys.Adr <u>5</u> DVR <u> </u> Channel 6 Physical Address?
--

- Enter the DVR (i.e.: 5) using the numeric buttons and press the ENTER button (address: 1-99).

The "Channel" cursor blinks.

CAMERA NUMBER 22 Line B Phys.Adr 5 DVR 5 Channel <u> </u> Insert channel 1/16

- Enter "0" when the camera is not connected to the DVR.

- Enter the Channel (i.e.: 7) using the numeric buttons and press the ENTER button (address: 1-16).

CAMERA NUMBER 22 Line B Phys.Adr 5 DVR 5 Channel <u>7</u> ENTER to modify
--

- Use the ENTER button to move the cursor to the items to change.

- Press the ESC button.

LINE ASSIGNMENT displays.

Press the ESC button repeatedly and appear the initial display.

- Simultaneously changing the assigned cameras to the same line

Example: Collectively changes Camera 3 to 8 to Line B.

Only sequential settings can be configured.

- Select the first camera number (i.e.: 3) to configure to Line B using the J stick and press the MENU button.

The bottom of the display changes to "(Mark) 1.A 2.B 0.None".

CAMERA NUMBER 1 Line A Phys.Adr 1 DVR 1 Channel 1 (Mark) 1.A 2.B 0.None
--

CAMERA NUMBER <u>3</u> Line A Phys.Adr <u>3</u> DVR 1 Channel <u>3</u> (Mark) 1.A 2.B 0.None

Menu settings (Continued)

(Continued)

- 2 Select the last camera number (i.e.: 8) of Line B using the J stick and select using the numeric buttons (i.e.: 2)

Collectively changes camera 3 to 8 to Line B.

```
CAMERA NUMBER 8
Line B Phys.Adr 8
DVR 1 Channel 8
ENTER to modify
```

Confirmation:

When the CAMERA NUMBER is set to 3 using the J stick (up/down), the number becomes Line B. When the CAMERA NUMBER is set to 9, the number becomes Line A. The collective changes of the lines can be confirmed.



However, the settings configured in advance return to their initial values.

Return the settings to their initial values

- 1 Use the ESC button to display the LINE ASSIGNMENT menu, select "ASSIGNMENT RESET" using the J stick (down), and press the ENTER button.
- 2 Press the MENU (Yes) button when asked "DEFAULT LINE ASSIGNMENT?"
This returns the settings to their initial values. Press the ESC (No) button when continuing with the configured settings.

```
LINE ASSIGNMENT
DVR
CAMERAS
▶ASSIGNMENT RESET
```

```
DEFAULT LINE
ASSIGNMENT?
```

```
MENU.Yes ESC.No
```

4 Address settings of this unit

When purchased, the unit address is set to "0". Change the address when using multiple controllers.

Allocate addresses from 0 to 4.

- 1 Select "Keyboard No." using the J stick (up/down) and press the ENTER button.

KEYBOARD ID-NUMBER displays.

```
MAIN MENU
^ Lines Setup
  Lines Assignment
  ✓▶Keyboard No.
```

```
KEYBOARD ID-NUMBER
Number : _
        (0-4)
```

- 2 Enter the address (i.e.: 2) using the numeric buttons and press the ENTER button.

Address 2 is registered and returns to the MAIN MENU.

```
KEYBOARD ID-NUMBER
Number : 2
        (0-4)
```



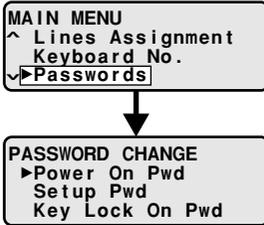
More than 4 addresses cannot be configured.

5 Password settings

A password can be configured on this unit.

- 1 Select "Passwords" using the J stick (up/down) and press the ENTER button.

PASSWORD CHANGE displays.



- 2 Select the registration items of the password using the J stick (up/down) and press the ENTER button.

- A Password registration when power is turned on (P28)

- Power on Pwd

- B Password registration on the menu screen (P29)

- Setup Pwd

- C Password registration to key lock the operating buttons (P29)

- Key Lock On Pwd

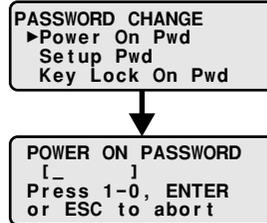


- Write down the passwords to remember them. In addition, it is recommended that the password is changed periodically for safety.
- Initially, the password is not configured.
- When a password is set, a screen requesting the password appears when the power is turned on. Enter the configured password.
- When the wrong password is entered, "WRONG PASSWORD!" displays. Enter the correct password.

- A Password registration when power is turned on

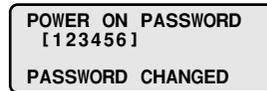
- ① Select "Power On Pwd" using the J stick (up/down) and press the ENTER button.

POWER ON PASSWORD displays.



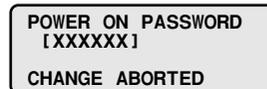
- ② Enter the password using the numeric buttons (i.e.: 123456) and press the ENTER button.

"PASSWORD CHANGED" blinks for about 3 seconds, the entered password is recorded, and returns to PASSWORD CHANGE.



- Press the ESC button to cancel the password change.

The password changes to "xx..." and returns to PASSWORD CHANGE after blinking "CHANGE ABORTED".



- ③ Press the ESC button.

Menu Settings (Continued)

B Password registration on the menu screen

- 1 Select "Setup Pwd" using the J stick (up/down) and press the ENTER button. SETUP PASSWORD displays.

```
PASSWORD CHANGE
Power On Pwd
▶Setup Pwd
Key Lock On Pwd
```

- 2 Enter the password using the numeric buttons (i.e.: 123456) and press the ENTER button. "PASSWORD CHANGED" blinks for about 3 seconds, the entered password is recorded, and returns to PASSWORD CHANGE.

```
SETUP PASSWORD
[123456]
Press 1-0, ENTER
or ESC to abort
```

```
SETUP PASSWORD
[123456]
PASSWORD CHANGED
```

- Press the ESC button to cancel the password change. The password changes to "xx..." and returns to PASSWORD CHANGE after blinking "CHANGE ABORTED".

```
SETUP PASSWORD
[XXXXXX]
CHANGE ABORTED
```

- 3 Press the ESC button.

C Password registration to key lock the operating buttons

- 1 Select "Key Lock On Pwd" using the J stick (up/down) and press the ENTER button. KEY LOCK ON PASSWORD displays.

```
PASSWORD CHANGE
Power On Pwd
Setup Pwd
▶Key Lock On Pwd
```

- 2 Enter the password using the numeric buttons (i.e.: 123456) and press the ENTER button. "PASSWORD CHANGED" blinks for about 3 seconds and the entered password is recorded.

```
KEY LOCK ON PASSWORD
[123456]
Press 1-0, ENTER
or ESC to abort
```

```
KEY LOCK ON PASSWORD
[123456]
PASSWORD CHANGED
```

- Press the ESC button to cancel the password change. The password changes to "xx..." and returns to PASSWORD CHANGE after blinking "CHANGE ABORTED".

```
KEY LOCK ON PASSWORD
[XXXXXX]
CHANGE ABORTED
```

- 3 Press the ESC button. The password is key locked.

Key lock and cancel method

(Key lock)

- Configure the password, press the ESC button, and return to the initial display.

DVR	5
CH	???
CAM No.	???

- Press the SEQ button while pressing the SET button.

The key locks.

KEY LOCK ON
ENTER PASSWORD
[]
Press 1-0, ENTER

(Canceling the key lock)

- Enter the key lock password using the numeric buttons (i.e.: 123456) and press the ENTER button.

KEY LOCK ON
ENTER PASSWORD
[*****]
Press 1-0, ENTER

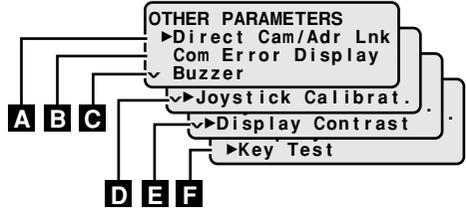
The key lock is cancelled and the initial display returns.

Cancel the various passwords

Do not enter anything into the enter password registration screen and press the ENTER button.

6 Other function settings

The following 6 functions exist to ensure the smooth operation of this unit.



- This function automatically switches the camera image connected to the DVR to the DVR's main monitor when calling the address configured to the camera. (P31)
- This function displays the communications error message on the menu display. (P31)
- This function configures a warning buzzer when there is an input error. (P32)
- This function configures and adjusts the J stick. (P32)
- This function adjusts the contrast on the menu display. (P33)
- This function tests the functionality of the operating buttons. (P33)

Menu settings (Continued)

- A** Automatically switching the camera image connected to the DVR to the DVR's main monitor when calling the address configured to the camera

- ① Select "Other Parameters" using the J stick (up/down) and press the ENTER button.

OTHER PARAMETERS displays.

```
MAIN MENU
^ Keyboard No.
  Passwords
  ▸Other Parameters
```

```
OTHER PARAMETERS
  ▸Direct Cam/Adr Lnk
  Com Error Display
  ▾ Buzzer
```

- ② Select "Direct Cam/Adr Lnk" using the J stick (up/down) and press the ENTER button.

DIRECT CAM/ADR LINK displays.

- **J stick (right):**
ON (automatically switches the monitor)
- **J stick (left):**
OFF

```
DIRECT CAM/ADR LINK
  ▸Activated: ON
```

- ③ Press the ESC button.
Returns to OTHER PARAMETERS.

- B** Displaying the communications error message on the menu display

- ① Select "Other Parameters" using the J stick (up/down) and press the ENTER button.

OTHER PARAMETERS displays.

```
OTHER PARAMETERS
^ Direct Cam/Adr Lnk
  ▸Com Error Display
  ▾ Buzzer
```

- ② Select "Com Error Display" using the J stick (up/down) and press the ENTER button.

COMM. ERROR DISPLAY displays.

- **J stick (right):**
ON (displays the communication error)
- **J stick (left):**
OFF

```
COMM. ERROR DISPLAY
  ▸Activated: ON
```

- ③ Press the ESC button.
Returns to OTHER PARAMETERS.

C Sounding the warning buzzer when there is an input error

- 1 Select "Other Parameters" using the J stick (up/down) and press the ENTER button.

OTHER PARAMETERS displays.

```
OTHER PARAMETERS
^ Direct Cam/Adr Lnk
  Com Error Display
v▶Buzzer
```

- 2 Select "Buzzer" using the J stick (up/down) and press the ENTER button.

BUZZER displays.

- J stick (right): ON (The buzzer sounds.)
- J stick (left): OFF

```
BUZZER
▶Activated: ON
```

- 3 Press the ESC button.

Returns to OTHER PARAMETERS.

D Configuring and adjusting the J stick

- 1 Select "Other Parameters" using the J stick (up/down) and press the ENTER button.

OTHER PARAMETERS displays.

```
OTHER PARAMETERS
^ Com Error Display
  Buzzer
v▶Joystick Calibrat.
```

- 2 Select "Joystick Calibrat." using the J stick (up/down) and press the ENTER button.

JOYSTICK CALIBRAT. 1 displays.

```
JOYSTICK CALIBRAT. 1
Release the joy
and press Enter
to continue...
```

- 3 Press the ENTER button.

JOYSTICK CALIBRAT. 2 displays.

```
JOYSTICK CALIBRAT. 2
Move the joy
on the corners.
```

- 4 Turn the J stick along its maximum circumference and press the ENTER button.

```
JOYSTICK CALIBRAT. 2
X-0423 X0423 X+0521
Y-0531 Y0569 Y+0598
Enter to end.
```

- 5 Turn the J stick clockwise then counterclockwise.

```
JOYSTICK CALIBRAT. 3
Rotate clockwise
and counterclockwise
```



```
JOYSTICK CALIBRAT. 3
Z-0377 Z0693 Z+0693
Enter to end.
```

- 6 Press the ENTER button.

Returns to OTHER PARAMETERS.

Menu settings (Continued)

E Adjusting the contrast of the menu display

- 1 Select "Other Parameters" using the J stick (up/down) and press the ENTER button.

OTHER PARAMETERS displays.

```
OTHER PARAMETERS
^ Buzzer
  Joystick Calibrat.
v▶Display Contrast
```

- 2 Select "Display Contrast" using the J stick (up/down) and press the ENTER button.

DISPLAY CONTRAST displays.

```
DISPLAY CONTRAST
+. Increase
-. Decrease
ESC.Exit
```

- 3 Press the "+" or "-" button.

Adjusts the contrast.

- 4 Press the ESC button.

Returns to OTHER PARAMETERS.

F Functionality test of the operating buttons

- 1 Select "Other Parameters" using the J stick (up/down) and press the ENTER button.

OTHER PARAMETER screen displays.

```
OTHER PARAMETERS
^ Joystick Calibrat.
  Display Contrast
▶Key Test
```

- 2 Select "Key Test" using the J stick (up/down) and press the ENTER button.

The functionality test displays after the message "Release all keys to begin the test." appears.

```
Release all keys
to begin the test.
Press SHIFT+SET+END
to exit.
```

(Functionality test display)

```
EC12345 123 MM
CXHGIF 456 C 2
PSTM NF 789 S S
BZ OC -0+ CE E
```

Displays the button configuration of this unit by symbol or number. (Figure 1)

- 1 **EC12345:**
E (ESC), C (CODE), 1 (F1), 2 (F2), 3 (F3), 4 (F4), 5 (F5)
- 2 **CXHGIF:**
C (CAM MENU), X (AUX), H (HOME), G (GO TO PRESET), I (IRIS C.), F (A.FOCUS)
- 3 **PSTM:**
P (PAN), S (SEQ.), T (TOUR), M (PRESET MEMORY)
- 4 **BZ** (ZOOM BACK/MAX)
- 5 **NF** (FOCUS NEAR/FAR)
- 6 **OC** (IRIS OPEN/CLOSE)
- 7 **M** (MENU)
- 8 **M** (DVR)
- 9 **C** (CH/CAM)
- 10 **2** (SHIFT)

7 Initial settings

- 11 S (SEQ)
- 12 S (SET)
- 13 C (CLEAR)
- 14 E (ENTER)
- 15 E (END)

3 Press the operating button to test.

Correct operation:

The symbol or number of the button changes to a black dot (●).

Incorrect operation:

The symbol or number does not change.

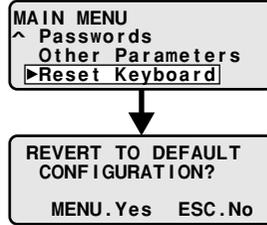
●●●●●45	123 MM
CXHGIF	456 C 2
PSTM NF	789 S S
BZ OC	-0+ CE E

Ending and canceling

Press the SHIFT, SET, and END buttons at the same time.

1 Select "Reset Keyboard" using the J stick (up/down) and press the ENTER button.

REVERT TO DEFAULT CONFIGURATION? displays.



2 Resetting selection

- **MENU button:**
Press the MENU button when the reset confirmation screen displays.
- **ESC button:**
Canceling the reset

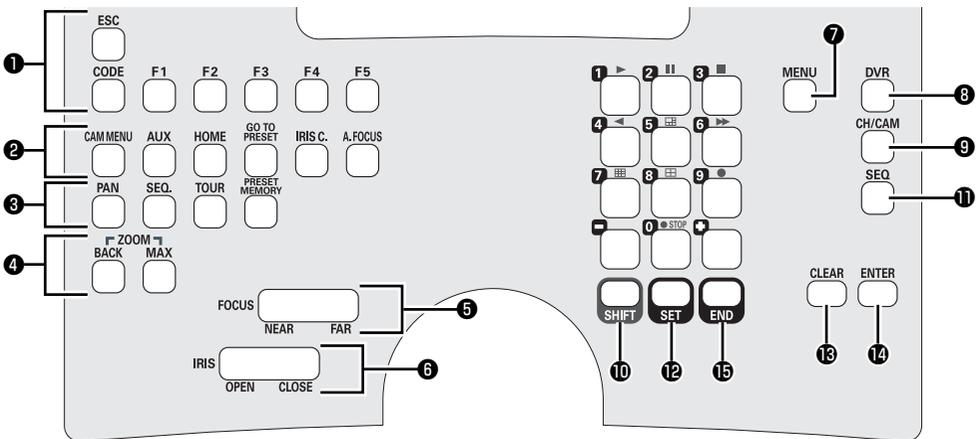
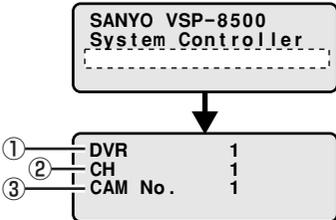


Figure 1

Operating the hard disk digital recorder

■ Address settings

When the power is turned on, the initial display appears after the version information automatically displays.



- ① DVR connection number
- ② Camera CH connected to the DVR (16ch type: 1-16)

③ Camera number (initial values)

Selected device	Operable cameras
DVR1	1 (CH1) – 16 (CH16)
DVR2	17 (CH1) – 32 (CH16)
DVR3	33 (CH1) – 48 (CH16)
DVR4	49 (CH1) – 64 (CH16)
DVR5	65 (CH1) – 80 (CH16)
DVR6	81 (CH1) – 96 (CH16)
DVR7	97 (CH1) – 112 (CH16)
DVR8	113 (CH1) – 127 (CH15)

Example: The camera number of DVR4's channel 1 is 49.

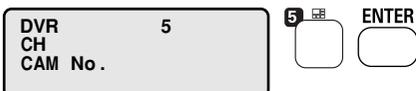
DVR	4
CH	1
CAM No.	49

- **Changing the camera number**
Refer to “**B Camera assignment and communication line settings**”. (P26)

- ### 1 Press the DVR button.
- All the numbers disappear and the operating DVR can be selected.



- ### 2 Select the operating DVR (i.e.: numeric button 5) and press the ENTER button.



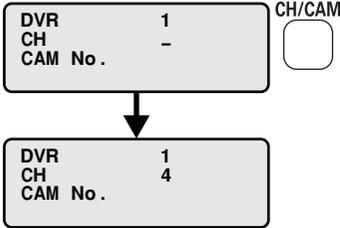
- Press the CLEAR button when there is an error in the entry and enter again.
- Press the DVR button when entering the value again from the beginning.

- ### 3 Command selection
- **General operation**
Refer to “**Operations using SHIFT button combinations**” for details. (P38)
 - **Menu selection and special operation**
Refer to “**Operations using SET button combinations**” for details. (P39)

■ DVR channel switching

- ① Press the CH/CAM button on the initial display.
- ② Select the channel (i.e.: 4) using the numeric buttons and press the ENTER button.

The monitor switches to the specified channel.



■ Automatic switching of the image in the monitor

When the SEQ button is pressed while configuring the channel settings, “” appears as the channel display and the monitor image switches automatically.



• Canceling automatic switching

Press the CH/CAM button again, press the numeric button of the image to view, and press the ENTER button.

■ DVR menu settings

- ① Press the MENU button while pressing the SET button.

The DVR main menu displays in the monitor.

- ② Select the menu using the J stick (up/down) while pressing the SET button and set to J stick (right).

The sub screen displays.

Set to J stick (left) when returning to the previous screen.

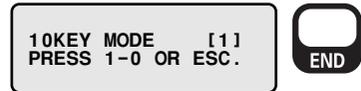
- ③ Press the ESC button while pressing the SET button to end.

- If there is a “K” at the right top hand corner of the monitor while the DVR is operating, numbers, i.e. setting time, can be entered.



- ① Press the END button.

Numbers can be entered using the numeric buttons.

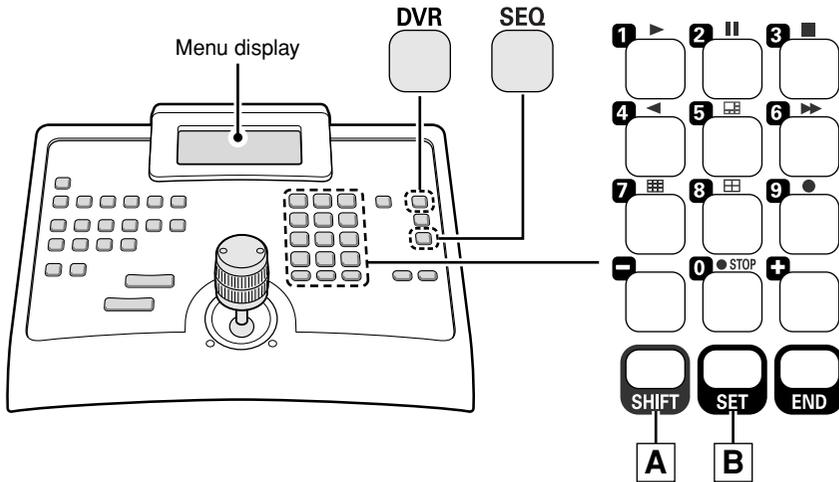


- ② Enter the time using the numeric buttons and the J stick and enter the settings using the J stick (right).

Operating the hard disk digital recorder (continued)

Operations from this unit using DVR operating buttons

There are two operating methods as follows.

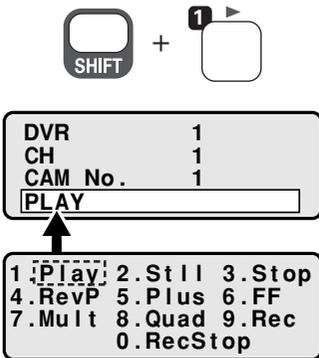


A Operations using SHIFT button combinations (P38)

Press the 1-0 button while pressing the "SHIFT" button.

The command of the pressed button appears at the bottom of the initial display and the operating mode switches to the selected command.

The initial display disappears in about 2 seconds.



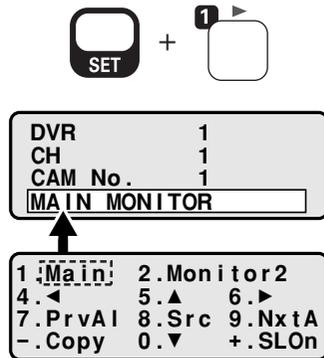
(Figure 1)

B Operations using SET button combinations (P39)

Press the 1-0, "-", or "+" button while pressing the "SET" button.

The command of the pressed button appears at the bottom of the initial display and the operating mode switches to the selected command.

The initial display disappears in about 2 seconds.



(Figure 2)

■ Operations using SHIFT button combinations

Press the numeric button while pressing the  button

Confirm the operating status on the DVR or monitor screen.

1. Play	2. Still	3. Stop
4. RevP	5. Plus	6. FF
7. Mult	8. Quad	9. Rec
	0. RecStop	



1. **PLAY: (Play)**

Plays back the normal recorded area or alarm recording area.



2. **STILL: (Still)**

Press this during playback. This pauses the image. Press the button again to return to playback.



This button frame advances the image forward when pressed while playback is paused.



This button frame advances the image backward when pressed while playback is paused.



3. **STOP: (Stop)**

This stops playback.



4. **REVERSE PLAY: (RevP)**

This reverse plays the image during playback.



This increases the playback speed when pressed during playback.



This decreases the playback speed when pressed during playback.



5. **PLUS: (Plus)**

PLUS screen displays.



6. **FAST FORWARD: (FF)**

This fast forwards the image during playback.



This increases the playback speed when pressed during playback.



This decreases the playback speed when pressed during playback.



7. **MULTI: (Mult)**

The main monitor screen can be divided into 6, 9, and 16 screens. The divided display differs based on the number of camera input terminals on the hard disk digital recorder.



8. **QUAD: (Quad)**

The main monitor screen is displayed as a quad-screen.



9. **REC START: (Rec)**

Start recording display appears when this is pressed.

- Press the "ENTER" button when recording.
- Press the "ESC" button when not recording.



0. **REC STOP (RecStop)**

Stop recording display appears when this is pressed.

- Press then "ENTER" button when stopping recording.
- Press the "ESC" button when continuing recording.

Operating the hard disk digital recorder (continued)

Operations using SET button combinations

Press the numeric button while pressing the  button

Confirm the operating status on the DVR or monitor screen.

1. Main	2. Monitor 2	
4. ◀	5. ▲	6. ▶
7. PrvAl	8. Src	9. NxtA
- . Copy	0. ▼	+ . SLOn

1  **MONITOR: (Main)**
Press to operate the main monitor.

2  **MONITOR 2: (Monitor 2)**
The monitor 2 output channel of the DVR can be switched.

4  **LEFT: (◀)**
Use in place of the J stick when making menu selections. This moves the cursor left.

5  **UP: (▲)**
Use in place of the J stick when making menu selections. This moves the cursor up.

6  **RIGHT: (▶)**
Use in place of the J stick when making menu selections. This moves the cursor right.

7  **PREVIOUS ALARM: (PrvAl)**
Press this button during playback or pause. This plays back the previous alarm image.

8  **SEARCH/EXIT: (Src)**
Press when pausing a playback. The search screen displays in the monitor.
Select the search playback item using the J stick (up/down) and select or change the item using the J stick while pressing the SET button.
Press the SEARCH/EXIT button while pressing the SET again to exit.

9  **NEXT ALARM: (NxtA)**
Press this button during playback or pause. This plays back the next alarm image.

-  **COPY/EXIT: (Copy)**
The image recorded to the normal recorded area or alarm recording area can be copied to a backup area or external memory.
Playback the recorded area to copy, pause, and press the COPY/EXIT button.
Press the COPY/EXIT button again to return to the initial display.



The recording to the external memory differs according to the type of device.

0  **DOWN: (▼)**
Use in place of the J stick when making menu selections. This moves the cursor down.

+  **SECURITY LOCK ON: (SLOn)**
Press this button when placing a security lock on the operation of the DVR. However, this function is available only when this function is configured on the DVR.

3  **Function is not Available.:**
The operating function is not available. Press the ESC button to return to the initial display.

Camera operation

■ Accessing a connected camera

A When a camera is connected to the DVR

The camera can be called from both the channel and number.

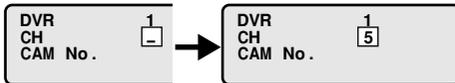
A-1 Calling from the channel

① Press the CH/CAM button.

The selected channel/camera number disappears and the cursor in the CH line blinks.

② Enter the channel of the camera (i.e.: 5) to view using the numeric buttons and press the ENTER button.

The image on the monitor screen switches to camera 5.



A-2 Calling from the camera number

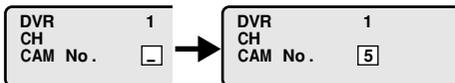
① Press the CH/CAM button twice.

The cursor moves to "CAM No." line.

② Enter the camera number (i.e.: 5) to view using the numeric buttons and press the ENTER button.

Although the monitor image does not change, camera 5 can be operated.

Refer to "**A** Automatically switching the camera image connected to the DVR to the DVR's main monitor when calling the address configured to the camera" to automatically switch the monitors. (P31)



B When only a camera is connected

Calling from the camera number.

① Press the CH/CAM button.

The selected camera number disappears and the cursor blinks.



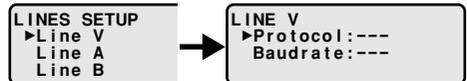
② Enter the camera number (i.e.: 5) to view using the numeric buttons and press the ENTER button.

The image on the monitor screen switches to camera 5 and the camera can be operated.

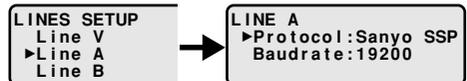


For example, the various protocols cannot be called if they are not configured as follows. (P24)

• Configuring "--" as the protocol of Line V



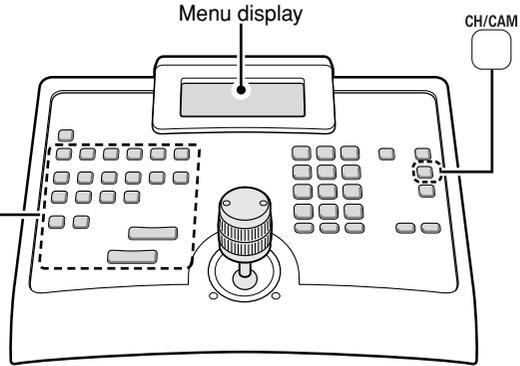
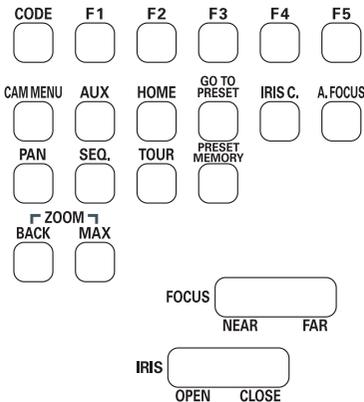
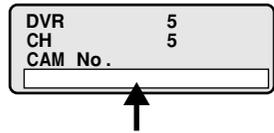
• Configuring "Sanyo SSP" as the protocol of Line A



Camera operation (continued)

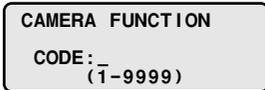
■ Operating the camera from this unit using the J stick and camera operating buttons

- Use the J stick to perform general camera operations such as Pan/Tilt.
- Beside the designation of some operating buttons a symbol  is displayed. When a button with such a symbol is pressed, the command in the bottom line of the menu is displayed and the button is activated.
If there is no symbol follow the instructions.



CAMERA FUNCTION:

This function is used to operate cameras with protocols from competitors. When this button is pressed the following menu displays. Enter the code from Appendix "Special code table" into the "CODE" and press the ENTER button.



AUX 1 ON:

This function transmits the ON command to AUX1. For example, if this button is pressed, "AUX 1 ON" displays and in the case of Sanyo's Day/Night camera, the camera automatically switches to color mode.



AUX 2 ON:

This function transmits the ON command to AUX2. For example, if this button is pressed, "AUX 2 ON" displays and in the case of Sanyo's Day/Night camera, the camera automatically switches to black and white mode.



AUX 3 ON:

This function transmits the ON command to AUX3. For example, if this button is pressed, "AUX 3 ON" displays and in the case of Sanyo's Day/Night camera, the camera automatically switches to auto mode.



This command function is unavailable. If this button is pressed, the menu displays. Press the ESC button.



CAM MENU



SHIFT+ ESC TO EXIT:

This function displays the camera menu. Press the SHIFT and ESC buttons at the same time to exit the menu (only possible on models VCC-9500, 9600, 9700, and 9800).

AUX



AUXILIARY CONTACT:

This button turns the other functions ON. When the button is pressed again, AUX turns OFF. Enter the numbers while the AUX is ON or OFF and press the ENTER button. Press the ESC button to return to the initial display. (Refer to the Sanyo camera AUX command table. P52)

AUXILIARY CONTACT
AUX ON :
 (1-16)
Press ESC to return

HOME



GO TO PRESET 1:

Moves the camera to the preset 1 (initial values).

GO TO PRESET



GO TO PRESET:

Press the button, enter the preset number, and press the ENTER button to move the camera to the selected position. Press the ESC button to return to the initial display.

GO TO PRESET
POSITION:
 (1-255)
Press ESC to return

IRIS.C.



IRIS CENTER:

The iris level is returned to the center position.

A.FOCUS



AUTO FOCUS ON:

If the image is out of focus, press the button for one-touch focus.

PAN



AUTO PAN START:

This function starts the auto pan. The auto pan stops when another operation is started.

SEQ.



SEQUENCE START:

The sequential pan automatically starts using a preset position. The sequential pan stops when another operation is started.

TOUR



TOUR START:

This function starts the tour operation. The tour stops when another operation is started.

PRESET MEMORY



PRESET MEMORY:

Press this button after selecting a preset object. Enter the preset number from the displayed menu and press the ENTER button.

MEMORY PRESET
POSITION:
 (1-255)
Press ESC to return

BACK



ZOOM BACK:

The zoom moves to the maximum Tele position and returns to the position where the zoom started.

MAX



MAX. ZOOM:

Zooms to the maximum Tele position.

FOCUS



NEAR FAR

FOCUS NEAR/FAR:

- FOCUS NEAR:
Focuses on a near object.
- FOCUS FAR:
Focuses on a far object.

IRIS



OPEN CLOSE

IRIS OPEN/CLOSE:

- IRIS OPEN:
Opens the iris level.
- IRIS CLOSE:
Closes the iris level.

Camera operation (continued)

■ Operates the pan, sequence and tour operations of the PTZ camera

The pan, sequence, and tour operations of the PTZ camera can be operated by selecting the preconfigured positions.

These operations are limited to the registered operations of the following models.

- VCC-9500
- VCC-9600
- VCC-9700
- VCC-9800

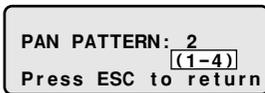
▶ Pan operation (Selection: 1-4)

1 Press the PAN button while pressing the SHIFT button.

“PAN PATTERN” menu displays.

2 Press a numeric button (i.e.: 2) and press the ENTER button.

The pan operates according to the recorded operation on the selected numeric button.



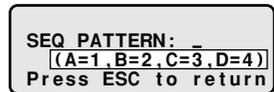
▶ Sequence (Selection: 1-4)

1 Press the SEQ button while pressing the SHIFT button.

“SEQ PATTERN” menu displays.

2 Press a numeric button (i.e.: 3) and press the ENTER button.

The sequence operates according to the recorded operation on the selected numeric button.



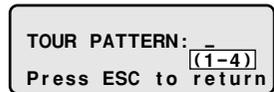
▶ Tour (Selection: 1-4)

1 Press the TOUR button while pressing the SHIFT button.

“TOUR PATTERN” menu displays.

2 Press a numeric button (i.e.: 4) and press the ENTER button.

The tour operates according to the recorded operation on the selected numeric button.



- Press the ESC button to return to the initial display.

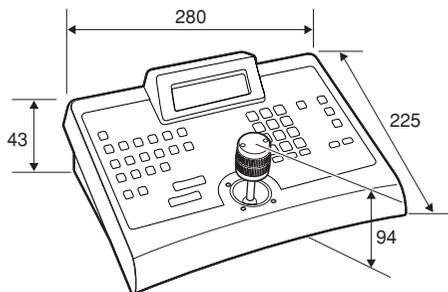
Specifications

Communication method	RS485
Keyboard	42 buttons
Joystick (J stick)	Three-axis joystick (pan/tilt/zoom)
Control terminal	RJ-11 terminal: VIDEOx1, TELEMETRYx2
RS-232C terminal for PC	RS-232C D-SUB (9-pin) terminal
Dipswitch	<ul style="list-style-type: none">• Normal mode/PC mode: 1-bit dipswitch• Terminate: 3-bit dipswitch (Video/Telemetry A/B)
Communication speed	2400, 4800, 9600, 19200 bps
Maximum number of connected equipment	<ul style="list-style-type: none">Total: 256 units• Controller: 5 units• Hard disk digital recorder: 98 units total• PTZ camera, CCD camera: TELEMETRY A 127 units TELEMETRY B 127 units• Matrix switch (Videotec SM328S): 1 unit
Usage conditions	Temperature: 5°C to 40°C Humidity: 80% or less
Storage conditions	Temperature: -20°C to 60°C Humidity: 80% or less
Power source (AC adapter)	Input voltage: 100 – 240 V AC 50/60Hz Output voltage: 12 V DC
Current consumption	1A
Weight	900g

Appearance and specifications may be revised without notice. Thank you for your understanding.

■ Outer Dimensions

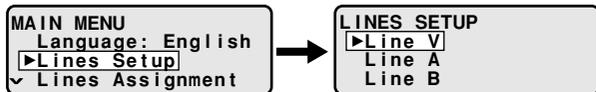
(Units: mm)



Appendix

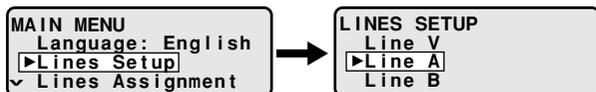
■ Communication table

Line V (Video communication)



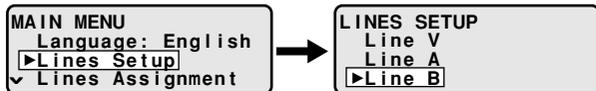
	Protocol	Communication speed (Baudrate)
1	Sanyo SSP	19200
2	---	---

Line A (Camera communication)



	Protocol	Communication speed (Baudrate)
1	Video	---
2	Sanyo SSP	1200/2400/4800/9600/ 19200
3	SanyoHSSP	1200/2400/4800/9600/ 19200
4	Macro	1200/ 9600 /19200/38400
5	Ernitec	1200/ 2400 /4800/9600/19200
6	Mark Merc	2400/4800/ 9600 /19200
7	Pelco D	2400 /4800/9600/19200
8	Sensorm.	1200/2400/ 4800 /9600/19200
9	Vcl	1200/2400/4800/ 9600 /19200
10	Videotec	1200/ 9600
11	---	---

Line B (Camera communication)



	Protocol	Communication speed (Baudrate)
1	Sanyo SSP	1200/2400/4800/9600/ 19200
2	SanyoHSSP	1200/2400/4800/9600/ 19200
3	Macro	1200/ 9600 /19200/38400
4	Ernitec	1200/ 2400 /4800/9600/19200
5	Mark Merc	2400/4800/ 9600 /19200
6	Pelco D	2400 /4800/9600/19200
7	Sensorm.	1200/2400/ 4800 /9600/19200
8	Vcl	1200/2400/4800/ 9600 /19200
9	Videotec	1200/ 9600
10	Video	---
11	---	---

- The factory setting is represented in bold.

■ **Special code table**

These functions can be loaded by entering their special codes.

ERNITEC SATURN	46
MARK MERCER	47
PELCO	49
SENSORMATIC	51

● **ERNITEC SATURN**

Code	Function
AUTOPAN	
301	Saves the current position of the first limit switch.
302	Saves the current position of the second limit switch.
XXX	XXX = 0 – 255 : Auto-pan speed (0=min, 255=max) Note: Cannot use with Saturn type.
PATROL	
1000	Deletes patrol order.
1XXX	XXX = 1 – 128 : Writes preset position “XXX” into patrol order.
2000 2XXX	Makes patrol order valid. X = 001 – 128 : Deletes preset position “XXX” from patrol order.
3XXX	X = 000 – 255 : Waiting time (in seconds) upon reaching specified position Example: “ 1000 ” Deletes previously defined order. “ 1001 ” Writes preset position “1” into order. “ 1005 ” Writes preset position “5” into order. “ 1006 ” Writes preset position “6” into order. “ 2005 ” Deletes preset position “5”.
OTHER FUNCTIONS	
4XXY	Dome cameras can be set to automatically move to the “return position” after a set stopping time passes. XX = 01 – 99 : “Return position” (Cannot select positions No. 100 to No. 128) Y = 0 - 9 : Return time 0 : 10 seconds, 1 : 20 seconds, 2 : 30 seconds, 3 : 40 seconds, 4 : 1 minute, 5 : 2 minutes, 6 : 5 minutes, 7 : 10 minutes, 8 : 20 minutes, 9 : 40 minutes
4000	Invalidates movement to “return position”. Example: “ 4216 ”: After stopping for 5 minutes (Y=6), move to position 21 (XX=21).
400	Text display/non-display (switch)
500	Backlight compensation ON/OFF (switch)
9999	Initializes the dome camera internal memory.

Appendix (Continued)

● MARK MERCER

Code	Function
IRIS MANUAL	
11	Opens the iris.
12	Closes the iris.
ON SCREEN DISPLAY	
21	Screen display ON.
22	Screen display OFF.
23	Screen display on top half of monitor.
24	Screen display on bottom half of monitor.
INFRARED RESPONSE CURVES	
31	Initially set curve (visible light)
32	950nm curve
33	850nm curve
COLOUR/B&W CAMERA	
40	Automatically switch from color to black-and-white, and black-and-white to color.
41	Black-and-white camera
42	Color camera
43	Decreases the camera integration level (decreases shutter speed).
44	Increases the camera integration level (increases shutter speed).
45	Zero lux ON (infrared filter OFF)
46	Zero lux OFF (infrared filter ON)
Switch level	
47	Brighter
48	Initial setting value
49	Darker
PRIVACY ZONE	
51	All zones ON
52	All zones OFF
53	Switches zone-specific cursor (ON/OFF)
54	Switches masking (ON/OFF) depending on cursor status. Cursor ON: This code enables placing a small masking on the cursor. When the code is sent again, the masking type changes. Cursor OFF: This code enables masking the entire screen. When the code is sent again, the masking is cancelled.
DYNAMIC CONTROL OF ZONE TITLING	
61	Switches title (ON/OFF).
62	Deletes zone.
63	Initializes zone.
DIGITAL ZOOM	
6	Switches to digital zoom (ON/OFF).
1XX	XX = 00 – 99: Digital zoom value (when this function can be used for dome cameras).

Code	Function
TOGGLE AUTO PARK (ON/OFF)	
2XX	Dome cameras can be set to automatically move to preset position No. 1 after a set stopping interval passes. XX = 01 – 99(*) : Waiting time (minutes) before automatically stopping (*) when waiting time XX=00 , the function is invalid. Example: “205” Automatically stop after waiting for 5 minutes (XX=05) “200” Automatic stop OFF (XX=00)
TOGGLE AUTO PATROL (ON/OFF)	
1XXY	Dome cameras can be set to automatically start the specified patrol order after a set stopping time passes. XX = 01 – 99(*) : Waiting time (minutes) before automatic patrolling. Y = 0 – 5 : Patrol number (*) when waiting time XX=00 , the function is invalid. Example: “1153” After stopping for 15 minutes (XX=15), automatically patrols in No. 3 (Y=3) patrol order. “1003” Automatic patrol OFF (XX=00)
OTHERS	
0	Patrols all positions
1	Switches automatic U-turn (ON/OFF).
2	Aux 1 ON
3	Aux 1 OFF
7	Installed alarm: ON
8	Installed alarm: OFF
10	U-turn

Appendix (Continued)

• PELCO

Code	Function
0	Pan 0 position
SPEED CURVES	
11	First speed curve (speed values: 1, 5, 10, 20, 30, 45, 63).
12	Second speed curve (speed values: 1, 10, 20, 30, 40, 50, 63).
13	Third speed curve (speed values: 10, 15, 20, 25, 30, 45, 63).
14	Fourth speed curve (default setting) (speed values: 29, 37, 45, 50, 55, 59, 63).
15	Fifth speed curve (speed values: 10, 15, 20, 30, 40, 50, 63).
16	Sixth speed curve (Can be user customized, but has default settings: 10, 15, 20, 30, 55, 100, 255). (*)
8XXX	XXX = 000 – 255: Speed value(*)
900X	X = 1 - 7: Speed number. Values can be allocated.
910X	X = 1 - 7: Dome camera operation test at No. X uniform speed. To stop the test, move the joystick. Example: "8007": Speed value equal to 7 (X=007) "9001": The 7 speed value is allocated to Speed No. 1 (X=1). ... Writes speed value into speed No. 2, 3, 4, 5, 6, etc. "8138": 138 (X=138) speed value "9007": Allocates speed value 138 to speed No. 7 (X=7). To test speed No. 7 next: "9107": Dome camera moves at uniform speed of 138 (X=7). "16": Hereafter, whenever the joystick is moved, the dome camera moves at the speed allocated to the sixth speed curve (X=16).
(*) The Pelco D protocol accepts a value of 63 at maximum speed. Correct operation is not guaranteed when set at a higher speed.	
ZONE	
20	Begins zone scan.
21	Ends zone scan.
10X	X = 1 – 8: Sets beginning of zone.
20X	X = 1 – 8: Sets end of zone.
LENSES	
40	Auto-focus ON
41	Auto-focus OFF
42	Automatically turn auto-focus ON
AUTOIRIS	
50	Auto iris ON
51	Auto iris OFF
52	Automatically turn auto iris ON
ON SCREEN INFORMATION	
60	Automatic gain control device ON
61	Automatic gain control device OFF
62	Automatic gain control device AUTO

Code	Function
ALARMS	
X	Alarm identification (X is 1 to 8)
MISC	
99	Cleans screen.
999	Initializes remote camera operations (pan/tilt).
9999	Initializes remote camera operations (to default values).
70	Backlight compensation ON
71	Backlight compensation OFF
80	White balance ON
81	White balance OFF
90	Makes "unit phase delay mode" valid.
3X	X = 1 – 8 : Zoom speed
13X	X = 1 – 8 : Focus speed
1000(*)	Shutter speed
1001(*)	Line lock level
1002(*)	White balance R-B adjustment
1003(*)	White balance M-G adjustment
1004(*)	Gain
1005(*)	Auto iris level
1006(*)	Auto iris vertex
(*) After writing the code, a numerical value between 0 and 4000 must be introduced.	

Appendix (Continued)

● SENSORMATIC

Code	Function
RELAYS	
0	All relays OFF
1	Relay 1 ON
2	Relay 2 ON
3	Relay 3 ON
4	Relay 4 ON
12	Relay 1 and 2 ON
13	Relay 1 and 3 ON
14	Relay 1 and 4 ON
23	Relay 2 and 3 ON
24	Relay 2 and 4 ON
34	Relay 3 and 4 ON
123	Relay 1, 2 and 3 ON
124	Relay 1, 2 and 4 ON
134	Relay 1, 3 and 4 ON
234	Relay 2, 3 and 4 ON
1234	Relay 1, 2, 3 and 4 ON Example: "13": Makes only relays 1 and 3 valid (Relays 2 and 4 are invalid). "134": Makes only relays 1, 3 and 4 valid (Relay 2 is invalid).
PATTERN	
51	Begins collection pattern 1.
52	Begins collection pattern 2.
53	Begins collection pattern 3.
55	Checks new pattern, and replaces the previous definition.
56	Ends pattern collection.
61	Begins pattern 1.
62	Begins pattern 2.
63	Begins pattern 3.
71	Deletes pattern 1.
72	Deletes pattern 2.
73	Deletes pattern 3. Example: Definition of Pattern 2: "72": Deletes old pattern 2 (relates to the recording command of Walk Patrol nr.). "52": Begins collection of pattern 2. The dome camera moves within the display limits. "56": Ends collection. "55": Replaces old pattern with new record. "62": Begins pattern 2.
MISC.	
9999	Initializes remote camera operation

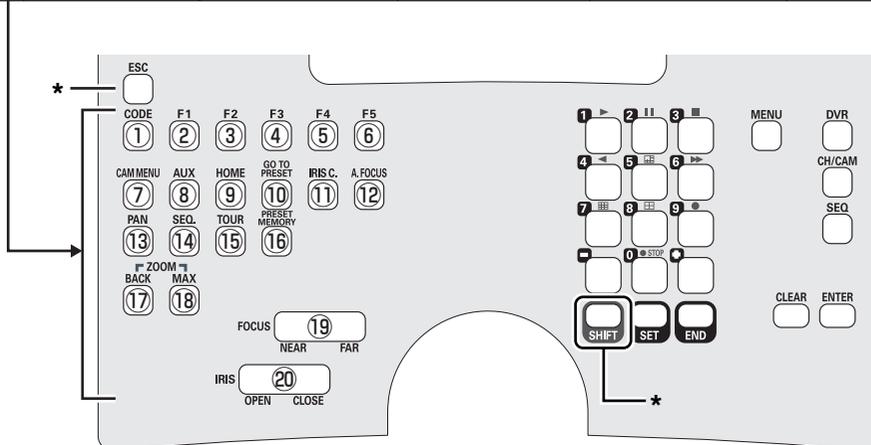
■ Sanyo camera AUX command table

AUX command	ON	OFF	Operation
1	Switch to Color Mode	Pan/Tilt control 1	Switches the Day/Night camera to color mode.
2	Switch to B/W Mode	Pan/Tilt control 2	Switches the Day/Night camera to black and white mode.
3	Switch to Day/Night Auto Mode	Pan/Tilt control 3	Switches the Day/Night camera to Day/Night auto mode.
4	AUTO RETURN Function ON	AUTO RETURN Function OFF	Refer to the operating manual regarding explanations of the Auto Return function.
5	GLOBAL ADDRESS Function ON	GLOBAL ADDRESS Function OFF	Exclusively for Pelco-D. All cameras can receive commands and operate using address 99.
6	REMOTE SET	REMOTE RESET	Enabled only when alarm output 2 is set to REMOTE. Refer to the operating manual for details.
7	–	–	–
8	ALARM DISABLE Function ON	ALARM DISABLE Function OFF	This function disables the alarm for a set time while PTZ is operating or after it has finished operating. Refer to the operating manual for details regarding the Alarm Disable function.
9	AUTO PURSUIT Function ON	AUTO PURSUIT Function OFF	Only the VCC-9700 and 9800 series. Refer to the operating manual for explanations regarding the auto pursuit function.

The aforementioned command strings are for the camera VCC-9500, 9600, 9700, and 9800 series. The AUX command 1, 2, 3 are available on the Day/Night type zoom camera series.

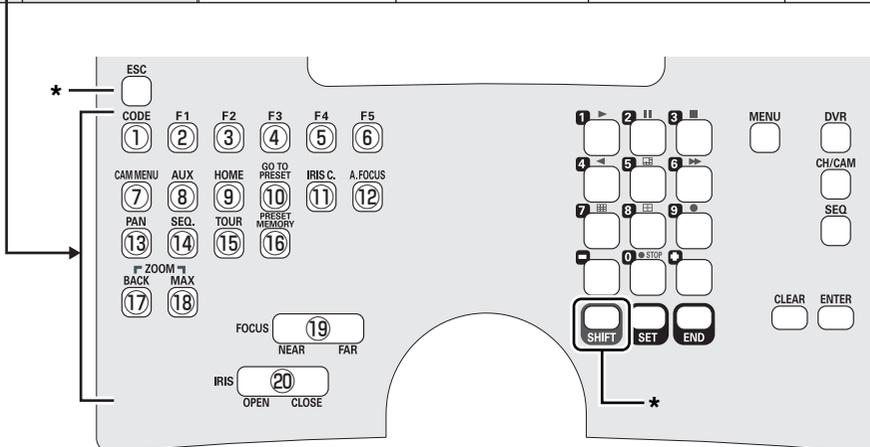
■ Camera key command table ①

	Key	Sanyo	Macro	Vcl	Ernitec
①	CODE	—	—	—	Yes
②	F1	Aux1 On	Aux+1	Aux1 On	Aux1 On
③	F2	Aux2 On	Aux+2	—	Aux2 On
④	F3	Aux3 On	Aux+3	—	Aux3 On
⑤	F4	—	F4No	—	—
⑥	F5	—	F5No	—	—
⑦	CAM MENU	Yes	Men+	—	Special Mode
*	SHIFT + ESC	Exit CAM OSD	Men-	—	—
⑧	AUX	Aux On 1-16	Aux+ 1/4	Aux On 1	Aux On 1-8
⑧	AUX + AUX	Aux Off 1-16	Aux- 1/4	Aux Off 1	Aux Off 1-8
⑨	HOME	Goto Preset 1	Hom+	Goto Preset 1	Goto Preset 1
⑩	GOTO PRESET	Goto Preset 1-255	Go to Preset 1/250	Goto Preset 0-127	Goto Preset 1-128
⑪	IRIS CENTER	Yes	IriD	—	—
⑫	AUTO FOCUS ON	Yes	Afo+	Yes	Yes
⑬	PAN	Autopan Start	Autopan Start Apa+	Autopan Start	Yes
*	SHIFT + PAN	Pan pattern 1-4	—	—	—
⑭	SEQ	Sequence Start	Patrol Std Start Pat+	—	—
*	SHIFT + SEQ	Seq pattern 1-4	Patrol Std Set (menu)	—	—
⑮	TOUR	Tour Start	Patrol S.A. Start PaV+	Tour Start 1-4	Patrol Start
*	SHIFT+ TOUR	Tour Pattern 1-4	Patrol S.A. Set (menu)	Tour Setup 1-4	—
⑯	PRESET MEMORY	Preset Mem 1-255	Pre+ 1/250	Preset Mem 0-127	Preset Mem 1-128
⑰	ZOOM BACK	Yes	ZooB	—	—
⑱	MAX ZOOM	Yes	ZooM	—	—
⑲	FOCUS NEAR/FAR	Yes	Yes	Yes	Yes
⑳	IRIS OPEN/CLOSE	Yes	Yes	Yes	Yes



■ Camera key command table ②

	Key	MarkM	PelcoD	Sensorm	Videotec
①	CODE	Yes	Yes	Yes	-
②	F1	Aux1 On	Aux1 On	-	-
③	F2	Aux2 On	Aux2 On	-	-
④	F3	Aux3 On	Aux3 On	-	-
⑤	F4	-	-	-	-
⑥	F5	-	-	-	-
⑦	CAM MENU	-	-	Yes	-
*	SHIFT + ESC	-	-	Yes	-
⑧	AUX	Aux On 1-4	Aux On 1-8	Aux On 1-4	Aux On 1-4
⑧	AUX + AUX	Aux Off 1-4	Aux Off 1-8	Aux Off 1-4	Aux Off 1-4
⑨	HOME	Goto Preset 1	Goto Preset 1	Goto Preset 1	Goto Preset 1
⑩	GOTO PRESET	Goto Preset 1-250	Goto Preset 1-254	Goto Preset 0-95	Goto Preset 1-127
⑪	IRIS CENTER	-	-	-	-
⑫	AUTO FOCUS ON	-	Yes	Yes	-
⑬	PAN	-	Pattern Start	Pattern 1 Start	Autopan Toggle
*	SHIFT + PAN	-	Pattern Definition Start	-	Autopan Start
⑭	SEQ	-	-	Pattern 2 Start	Patrol Std Start
*	SHIFT + SEQ	-	-	-	Patrol Std Set (menu)
⑮	TOUR	-	-	Pattern 3 Start	Patrol S.A. Start
*	SHIFT+ TOUR	-	-	-	Patrol S.A. Set (menu)
⑯	PRESET MEMORY	Preset Mem 1-250	Preset Mem 1-254	Preset Mem 0-95	Preset Mem 1-127
⑰	ZOOM BACK	-	-	-	-
⑱	MAX ZOOM	-	-	-	-
⑲	FOCUS NEAR/FAR	Yes	Yes	Yes	Yes
⑳	IRIS OPEN/CLOSE	Yes	Yes	Yes	Yes



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