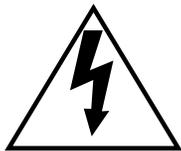


ENGLISH VERSION

Caution:

Before attempting to connect or operate this product, please read the label on the bottom.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>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.</p>		



SA 1965

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.



SA 1966

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 appliance.

— For U.S.A —

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The serial number of this product may be found on the bottom of the unit.

You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

WARNING:

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

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

The System Controller WV-CU360C is designed for setup and operation of cameras and other system units installed in a surveillance system.

The controller is compatible with the Panasonic Security Data (PS·Data) protocol by default, but DIP switches are provided to select the conventional communication protocol used with the Video Multiplexer WJ-FS616C, Matrix Switcher WJ-SX350 or WJ-SX850. Exchangeable templates

are supplied to adapt the names printed on the buttons to the functions of the unit you wish to control.

You can operate a whole system from the controller, for example, by selecting cameras and monitors, watching monitor screens and indicators, and controlling pan/tilt, lens and other camera functions.

FEATURES

Main features

- Camera channel selection
- Monitor Selection
- Alarm (Display/Suspend/Recall/Reset)
- Camera and system unit setup

Camera controls

- Lens functions: Iris/Focus/Auto Focus/Zoom
- Housing: Defroster/Wiper/Auxiliary 1, 2
- Pan/Tilt: Slow Pan/Slow Tilt/Auto Pan/Auto Sort/Auto Sequence/Random Pan/Preset/Home/Camera Patrol

In a PS·Data or a WJ-FS616 system

- Switching of Live pictures and Playback/Changing the Multiscreen Picture layout/Electronic Zoom/Sequence
- System Unit Selection

PRECAUTIONS

- **Refer all work related to the installation of this product to qualified service personnel or system installers.**

- **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, nor try to operate it in wet areas.**
Take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and cause electric shock.

- **Do not use strong or abrasive detergents when cleaning the appliance body.**

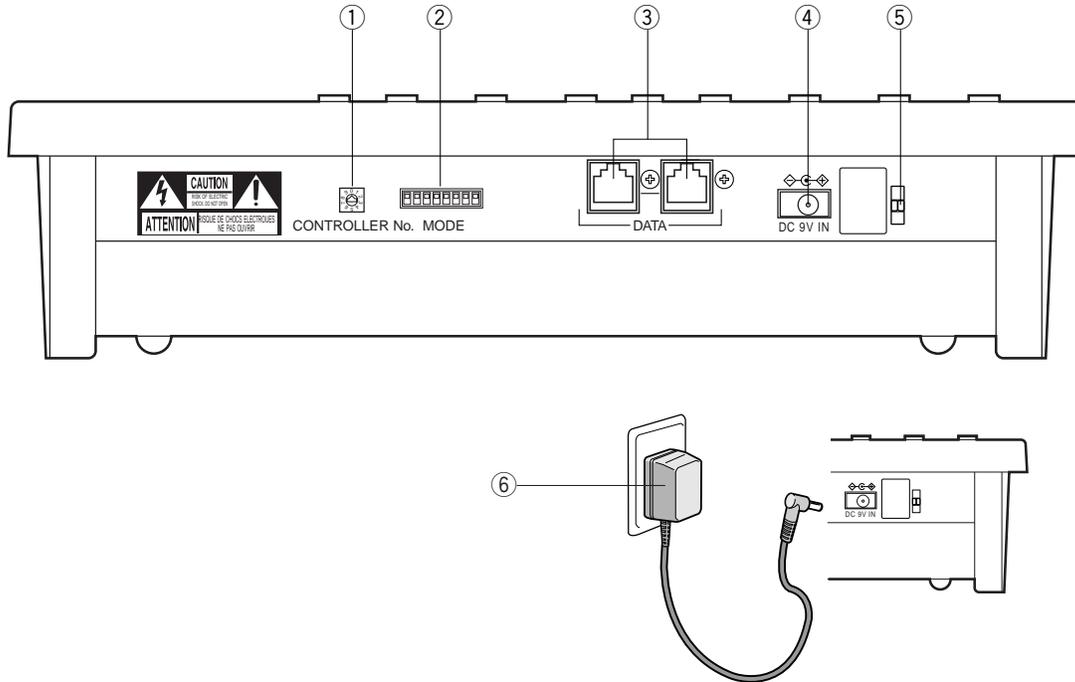
Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.

- **Do not operate the appliance beyond its specified temperature, humidity or power source ratings.**
Do not use in the appliance in an extreme environment where high temperature or high humidity exists.
Use the appliance at temperatures within -10°C - $+50^{\circ}\text{C}$ (14°F - 122°F) and a humidity below 90 %. The input power source for this appliance is 120 V AC 60 Hz by use of the AC Adapter supplied.

- **Do not use any AC adapter other than the one supplied.**

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Rear View and AC Adapter



① **Controller Number Switch (CONTROLLER No.)**

This switch is used to assign a controller number to the System Controller to identify it in a system comprising multiple System Controllers (See page 14). A system may comprise up to four controllers.

② **Mode Selection Switches (MODE)**

The DIP switches are used to set communication parameters for the System Controller.

③ **Data Ports (DATA)**

These ports are used to exchange control data with the connected system units via the supplied RS-485 cable.

④ **DC 9 V Input Jack (DC 9V IN)**

Jack for the DC plug of the supplied AC adapter.

⑤ **Clamp**

The clamp fastens the power cord to the AC adapter.

⑥ **AC Adapter**

Caution:

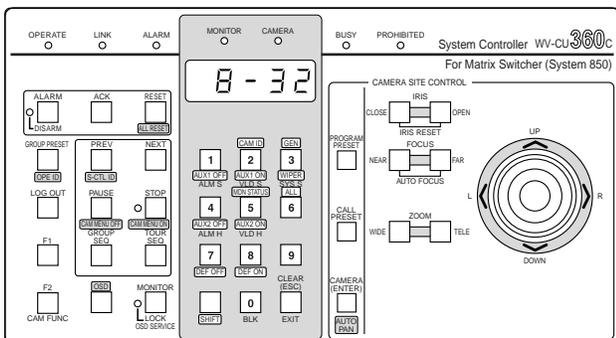
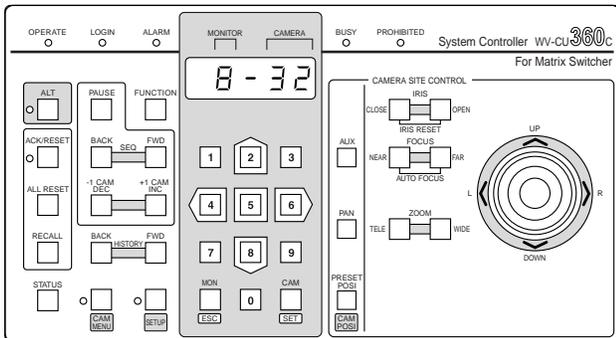
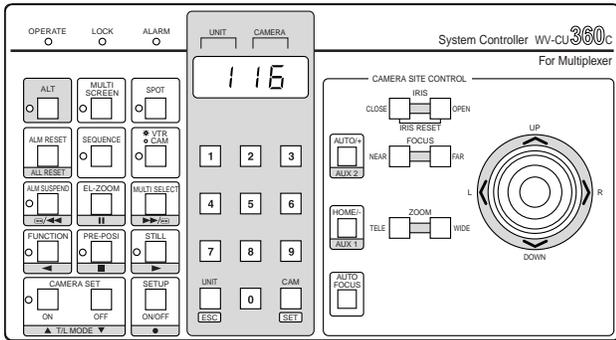
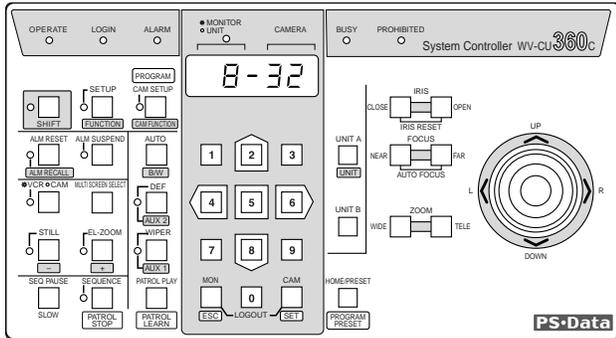
Use only the supplied AC adapter to feed DC 9 V to a System Controller.

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.

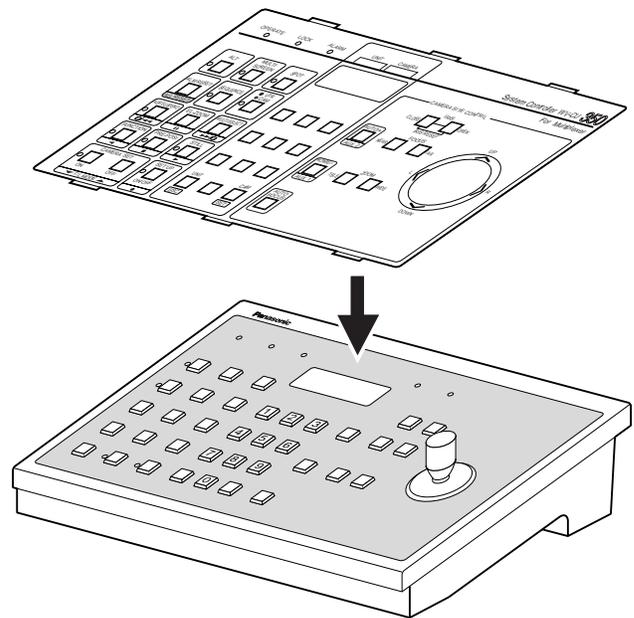
INSTALLATIONS

■ Template Mounting

The system controller is provided with four templates including one for PS-Data system that is placed (not taped yet) on the surface of the controller when shipped from the factory.

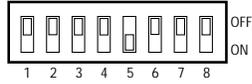
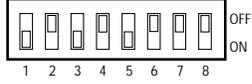
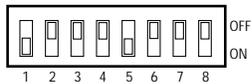
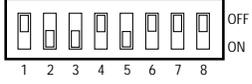
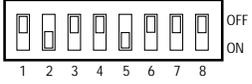
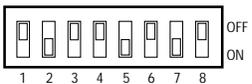


1. Select the correct template for your system.
 - Select the PS-Data template when your system includes any of the following:
 - Video Multiplexer (WJ-FS309/316)
 - Digital Disk Recorder (WJ-HD100/500A)
 - Data Multiplex Unit (WJ-MP204C)
 - Select the template marked "For Multiplexer" if your system includes a WJ-FS616C Video Multiplexer.
 - Select the template marked "For Matrix Switcher" if your system includes a WJ-SX350 Matrix Switcher.
 - Select the template marked "For Matrix Switcher (System SX850)" if your system includes a WJ-SX850 Matrix Switcher.
2. Peel off the tape, and fix the template in the guide slots on the front panel of the controller.

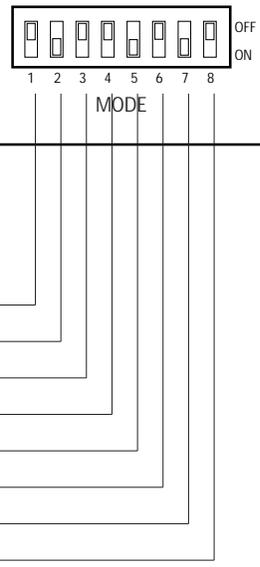


■ Rear Panel Switch Setting (Summary)

An 8-bit DIP switch and a rotary switch mounted on the rear of the controller specify the system unit ID and parameters for communication. Switch settings depend on your system configuration such as a PS•Data system, WJ-FS616C Multiplexer system, WJ-SX350 Matrix Switcher system or System 850. A summary of switch positions is shown below. For detailed information refer to the description of switch settings provided for each system.

System	Controller No. SW	MODE DIP SW
PS•Data	 See page 16 CONTROLLER No.	 MODE
WJ-FS616C	 #1 CONTROLLER No.	 MODE
WJ-FS616	 #1 CONTROLLER No.	 MODE
WJ-SX350 (Ver. 6.00 or later)	 #1 CONTROLLER No.	 MODE
WJ-SX350 (Ver. 1.xx)	 #1 CONTROLLER No.	 MODE
System 850 WJ-SX850	 #1 CONTROLLER No.	 MODE

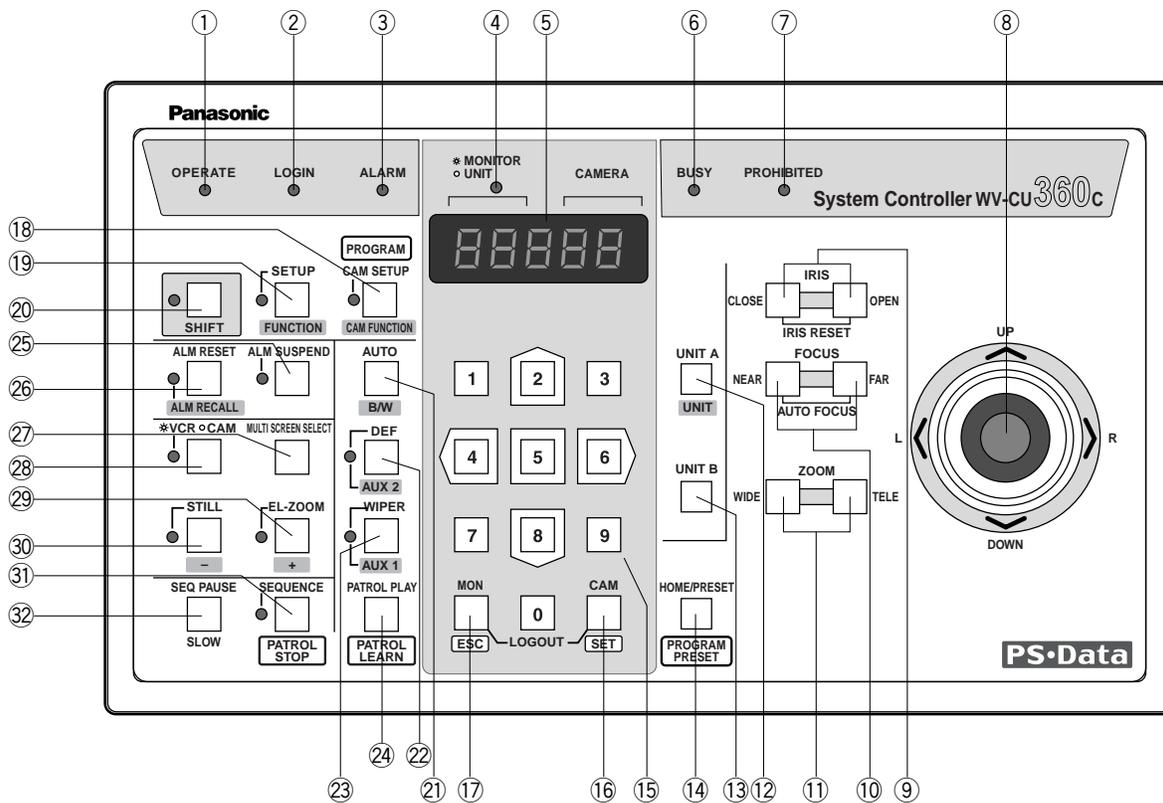
	Function
Bit 1	System Unit ID
Bit 2	System Unit ID
Bit 3	System Unit ID
Bit 4	Reserved
Bit 5	Line termination
Bit 6	Operation mode
Bit 7	Baud rate selection
Bit 8	Data transmission mode



Panasonic Security Data (PS•Data) Systems

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for PS•Data)



① Operate indicator (OPERATE)

Is lit while power is supplied to the System Controller.

② Login indicator (LOGIN)

Lights up when communication is established with PS•Data compatible system units.

③ Alarm indicator (ALARM)

Blinks when an alarm is activated. Blinking changes to steady light when the alarm is automatically reset. To turn the indicator off, press the Alarm Reset button.

④ Monitor/Unit indicator (* MONITOR/ o UNIT)

When this indicator lights up, the monitor number is displayed. When it goes off, the unit address is displayed.

⑤ LED Display

LED display allowing you to confirm the monitor or unit number and the number of the currently controlled camera. It also displays numeric input, error status, etc. The monitor or unit number is displayed when initial communication is established.

⑥ Busy indicator (BUSY)

Lights up when you attempt to control a system unit or camera that is already used by a higher priority operator, or when a higher priority operator selects the camera or system unit you are currently operating. Operations from the System Controller are disabled until this indicator goes off.

⑦ Prohibited indicator (PROHIBITED)

Lights up when an attempt is made to access a function that is prohibited to the operator level.

⑧ Joystick Controller (UP/DOWN/L/R)

Used to manually operate the pan/tilt head, or move the cursor in the setup menu on the active monitor screen. The joystick can also be moved in 8 directions. Holding down the joystick in the desired position will keep the cursor moving continuously in the setup menu. (See page 17.)

- UP: Upward
- DOWN: Downward
- L: Left
- R: Right

⑨ **Iris buttons (IRIS, CLOSE/OPEN)**

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

When these buttons are pressed simultaneously, the lens iris is reset to the factory default setting.

⑩ **Focus buttons (FOCUS, NEAR/FAR)**

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

When these buttons are pressed simultaneously, the lens focus is set automatically if the specified camera is used.

⑪ **Zoom buttons (ZOOM, WIDE/TELE)**

Zoom the image in or out if the camera is equipped with the specified lens.

⑫ **Unit A/UNIT button (UNIT A/UNIT)**

Selects a specific system unit in a multiple unit system.

To select a unit, press this button after entering the unit number with the numeric button. To confirm a unit number, press this button after pressing the SHIFT button. The selected unit address appears on the LED display.

The unit that is assigned to number 1 can be selected by pressing this button.

⑬ **Unit B button (UNIT B)**

Selects a specific system unit in a multiple unit system.

To select a unit, press this button after entered the unit number with the numeric button. The selected unit address appears on the LED display.

Just pressing this button will select the system unit assigned the number 1.

⑭ **Home/Preset/Programme Preset button (HOME/PRESET/PROGRAM PRESET)**

Returns a specific camera to its home position.

In combination with the numeric buttons, this button is also used to recall a preset position assigned to a specific camera.

Pressing it while holding down the Programme/Camera Setup/Camera Function button will programme the preset position.

⑮ **Numeric buttons (0-9)**

These buttons are used for numeric input, such as camera, monitor and unit numbers, and preset positions.

⑯ **Camera/Set button (CAM/SET)**

CAM: Used for camera selection. To select a camera, enter the desired camera number with the numeric buttons, and then press this button.

SET: Executes the currently highlighted setting in the setup menu.

Pressing this button together with the MON/ESC button for approximately 2 seconds will log out from the system.

⑰ **Monitor/Escape button (MON/ESC)**

MON: Used for monitor selection and confirmation. To select a monitor, enter the desired monitor number with the numeric buttons, and then press this button. The selected monitor number appears on the LED display.

To confirm a monitor number, simply press this button.

ESC: Used to escape from the currently highlighted selection and return to the previous menu of the setup menu.

Pressing this button together with the CAM/SET button for approximately 2 seconds will log out from the system.

⑱ **Programme/Camera Setup/Camera Function button (PROGRAM/CAM SETUP/CAM FUNCTION)**

Programmes camera patrol learning and preset position functions.

Pressing this button for 2 seconds or more will open the camera setup menu. Pressing it in combination with the numeric buttons after pressing the shift button will execute camera functions.

The LED next to the button is lit during the camera setup operation.

⑲ **Setup/Function button (SETUP/FUNCTION)**

Pressing this button for 2 seconds or more will open the setup menu of a system unit.

When the SHIFT indicator is lit, it provides access to the functions of the system unit. Enter a function number with the numeric keys, then press this button.

The LED next to the button is lit during the setup operation.

⑳ **Shift button (SHIFT)**

Shifts the button function between the normal and the shift mode shown in half-tone print under the button on the template. The LED next to the button is lit in the shift mode.

㉑ **Auto Panning/Black and White button (AUTO/B/W)**

Activates the auto panning function of cameras provided with this feature. Pressing this button in the shift mode will change the camera picture from color to black and white for better viewing in a dark place.

AUTO PAN ON or combination camera function:

Simply press this button, or press numeric button 1 followed by this button.

AUTO SORT ON: Press numeric button 2 followed by this button.

AUTO SEQ ON: Press numeric button 3 followed by this button.

RANDOM PAN ON: Press numeric button 4 followed by this button.

- ②② **Defroster/Auxiliary 2 button (DEF/AUX 2)**
 Activates the housing defroster of cameras provided with this feature. Pressing this button in the shift mode will turn on the AUX 2 function controlling accessories connected to the cameras or the system.
 The LED next to the button is lit while the defroster or AUX 2 function operates.
- ②③ **Wiper/Auxiliary 1 button (WIPER/AUX 1)**
 Activates the housing wiper of cameras provided with this feature. Pressing this button in the shift mode will turn on the AUX 1 function controlling accessories connected to the cameras or the system.
 The LED next to the button is lit while the wiper or AUX 1 function operates.
- ②④ **Patrol Play/Patrol Learn button (PATROL PLAY/PATROL LEARN)**
 Starts the camera patrol play. While holding down the Programme/Camera setup/Camera Function button, pressing this button will start to programme the camera patrol learning.
- ②⑤ **Alarm Suspend button (ALM SUSPEND)**
 Suspends or allows the alarm process.
 The LED next to the button is lit while the alarm suspension mode operates.
- ②⑥ **Alarm Reset/Alarm Recall button (ALM RESET/ALM RECALL)**
 Resets system alarm when the alarm function is active. Pressing this button in the SHIFT mode will recall the alarm logs (record of alarms activated in the past). Select a monitor, and then press this button to display the alarm logs on the monitor screen. Pressing this button after pressing the shift button again will cancel the function.
 The LED next to the button is lit while Alarm Recall mode is activated.
- ②⑦ **Multiscreen Selection button (MULTI SCREEN SELECT)**
 Selects the number of segments into which the multiscreen is split on the selected monitor connected to the MULTISCREEN OUT terminal of the Video Multiplexer.
- ②⑧ **VCR/Camera Selection button (* VCR/o CAM)**
 Changes the display on the multiscreen monitor between the live picture of a camera and the playback picture of a recording device. The LED next to the button is lit while VCR is selected.
- ②⑨ **Electronic Zoom/Increment button (EL-ZOOM/+)**
 Zooms the camera picture or VCR playback picture displayed on the multiscreen monitor.
 Pressing this button in the shift mode will move the camera sequence one step forward from the step previously paused while a system unit provided with SEQ PAUSE (e.g., a Video Multiplexer) is selected.
 Pressing this button in the shift mode will select the picture of camera with the next higher number for display on the monitor while a system unit connected with cameras (e.g., a Data Multiplex Unit) is selected.
 The LED next to the button is lit while Electronic Zoom mode is selected.
- ③⑩ **Still/Decrement button (STILL/-)**
 Freezes the camera picture or VCR playback picture on the multiscreen monitor.
 Pressing this button in the shift mode will move the camera sequence one step backward from the step previously paused while a system unit (e.g., a Video Multiplexer) provided with SEQ PAUSE is selected.
 Pressing this button in the shift mode will select the picture of the camera with the next lower number for display on the monitor while a system unit connected with cameras (e.g., a Data Multiplex Unit) is selected.
 The LED next to the button is lit while a still picture is displayed.
- ③⑪ **Sequence/Patrol Stop button (SEQUENCE/PATROL STOP)**
 Runs or stops a preset sequence in which a series of camera pictures is displayed in succession on the monitor screen for the specified duration. Pressing it while holding down the Programme/Camera Setup/Camera Function button will stop programming of camera patrol learning.
 The LED next to the button is lit while a sequence runs.
- ③⑫ **Sequence Pause/Slow button (SEQ PAUSE/SLOW)**
 Pauses a sequence running on the selected monitor. In this mode, a series of camera pictures is displayed in pause on the monitor screen for the specified duration. Pressing this button while moving the joystick controller will decrease the pan/tilt speed.

INSTALLATIONS (PS•Data)

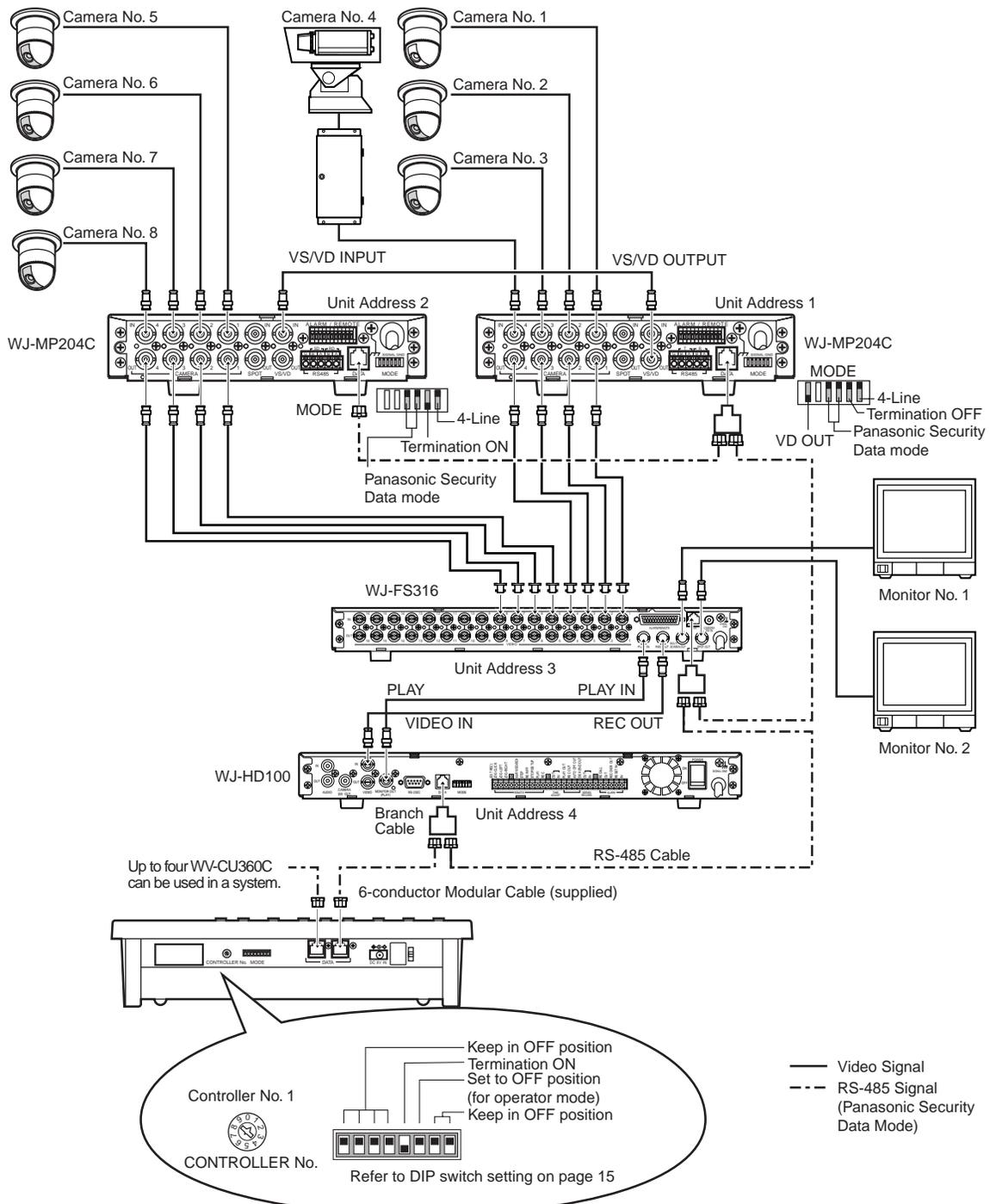
CAUTION

The installation should be made by qualified service personnel or system installers according to the following instructions.

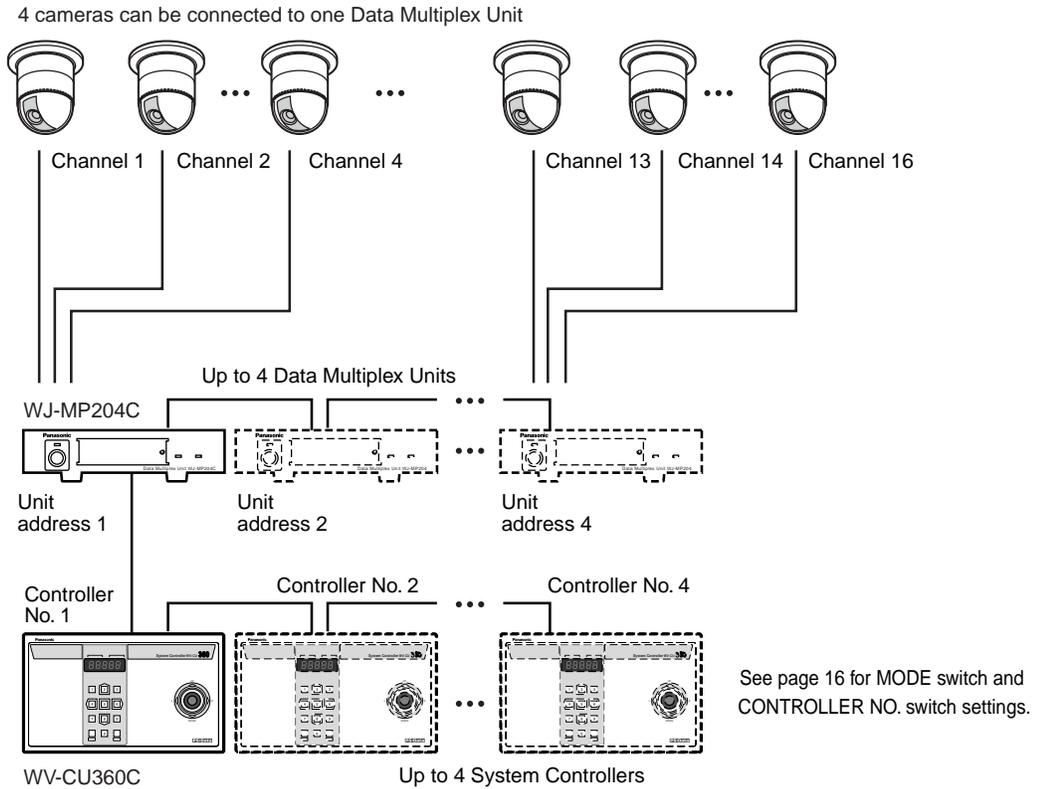
System Connections

Connection Example

Example 1 shows 8 cameras connected to 2 Data Multiplex Units (WJ-MP204C), to a Video Multiplexer (e.g., WJ-FS316) and a Digital Disk Recorder (e.g., WJ-HD100). The WV-CU360C controls these system units through RS-485 communication while pictures are viewed on the monitors.



Example 2 shows 4 Data Multiplex Units connected with 16 combination cameras, and 4 System Controllers.

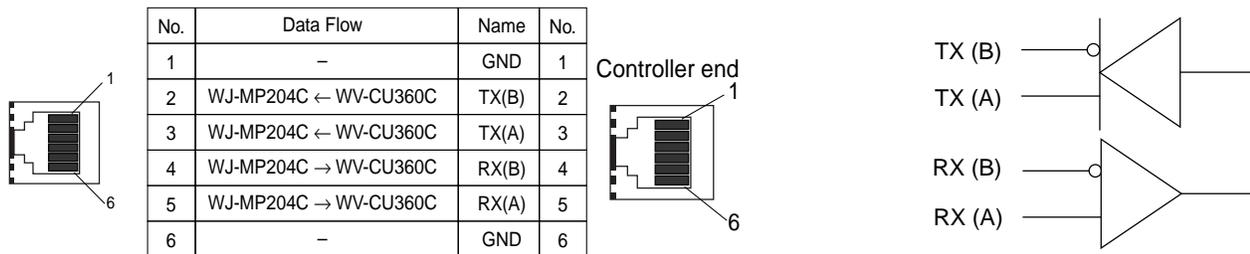


● DATA Port Connection (PS-Data)

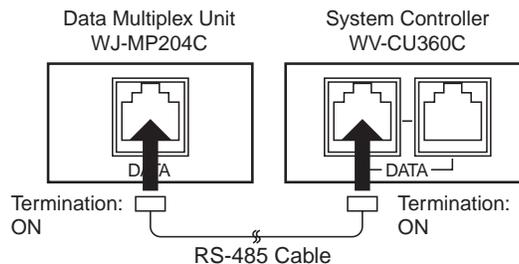
Data ports are connected with RS-485 cables among devices using the PS-Data protocol as follows.

Notes: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

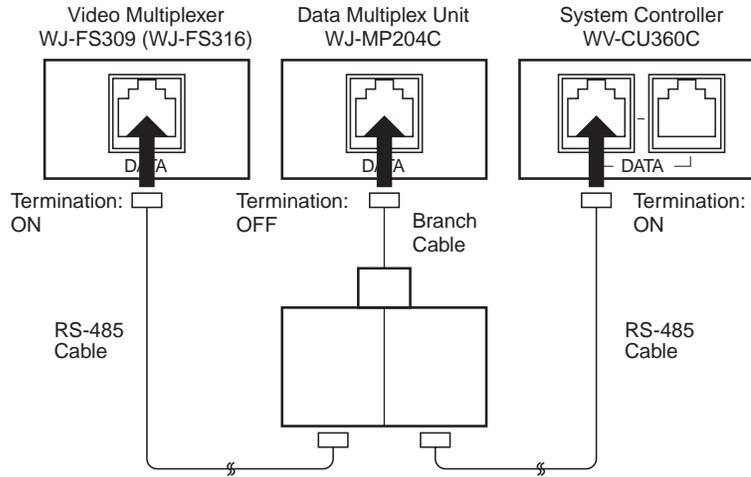
• Internal Diagram



• Basic Connection

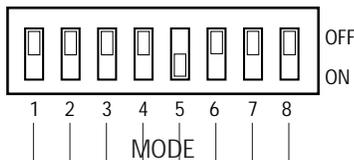


• **Daisy Chain Connection**



■ **DIP Switch Setting (PS-Data)**

An 8-bit DIP switch mounted on the rear panel specifies the communication mode, etc. The default position is marked with an asterisk *.



	Function	SW position	
		OFF	ON
Bit 8	Data transmission mode	Fixed to OFF*	Not used
Bit 7	Baud rate selection	Fixed to OFF*	Not used
Bit 6	Operation mode	Operator*	Administrator
Bit 5	Line termination	Off	On*
Bit 4	Reserved	Fixed to OFF*	Not used
Bit 3	System Unit Version	Fixed to OFF*	Not used
Bit 2	System Unit Version	Fixed to OFF*	Not used
Bit 1	System Unit Version	Fixed to OFF*	Not used

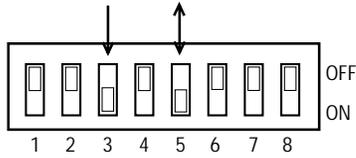
1. Remove the DC plug from the rear of the controller.
2. Set the switch referring to the table.
3. Connect the DC plug to the controller.

Notes:

- Bits 1 - 4 are reserved.
- Bit 5 opens or terminates the communication chain. The switch should be set to OFF when the controller is located in an intermediate position.
- Bit 6 specifies the operation mode, Operator or Administrator. The switch should be set to Administrator when setting up the controller. Remember to set this switch to the right position after completion of the setup operation.
- Bits 7 and 8 are used in the OFF position.

● MODE Switch Setting for System Example 2

The MODE switch needs to be set prior to operating a system connected as shown in Example 2.



Bit 3 should be set to OFF.

Bit 5 should be set to OFF when the controller is placed in an intermediate position, or set to ON when it is connected at the chain end.

■ Controller Number Setting (PS·Data)

A 10-position rotary switches provided on the rear for specifying the unit number of the WV-CU360C controller in a PS·Data system.

1. Remove the DC plug from the rear of the controller.
2. Use a screw driver to rotate the switch so that the arrow comes to the number you wish.



CONTROLLER No.

3. Connect the DC plug to the controller.

Controller No. Switch of WV-CU360C	Controller No.
0	Reserved
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	Reserved

Notes:

- Set the switch to #1 when a single controller is used in the system.
- Specify a unique number for each controller when connecting multiple controllers in the system. One controller within the multiple controller system must be assigned the number 1.
- Positions #0 and #9 are reserved and cannot be used.

CONTROLLER SETUP PROCEDURES (PS•Data)

To display the setup menus for the WV-CU360C System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

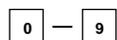
1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON (administrator) position.
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SEtUP]. The controller is ready to enter the setup mode.

When setup is completed, restore the switch to its original position.

1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF (operator) position.
2. Supply power to the controller.

■ Buttons and Controls used for Setup

The following buttons and joystick operations are used in the setup operation. There are three ways to select a parameter, but the following pages only describe the selection by use of the joystick. Instead of operating the joystick, you can enter the number enclosed in brackets with the numeric keys or press the plus and minus buttons.



Numeric buttons: To select a parameter
To enter a password or parameter



CAM/SET button: To confirm the selected menu, selected parameter or entered password
To enter a submenu



MON/ESC button: To return to the previous menu



Up: To select a setup menu



Down: To select a setup menu



Left: To decrease the parameter



Right: To increase the parameter

■ Setup Menus

There are 12 setup menus as shown below.

Menu Selection	Setup Menus				Parameter Selection (default*)
	LED Display	Reading	Function		
	SEtUP	Setup	Initial Display	CAM <input type="text"/> SET →	LED prompts you to enter a password
	----- blinking	Administrator Password Prompt	Authorization		CAM <input type="text"/> SET
<p>Move Joystick up and down to select</p>	SPEEd	Speed	Baud Rate (bps)	Press twice CAM <input type="text"/> → SET MON <input type="text"/> ← ESC	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	Prty	Parity	Parity Check		(1) None* (2) Even
	WAIte	Wait	Wait Time (ms)		(1) Off* (2) 100 (3) 200 (4) 400 (5) 1 000
	CU-9r	Controller Unit Group			Leave as it is
	SU-9r	System Unit Group			Leave as it is
	UA-no	Unit A Number	Unit Assignment to Button A		
	Ub-no	Unit B Number	Unit Assignment to Button B	CAM <input type="text"/> SET	
	USrP	User Password			Enter a 5-digit number, press (12345*)
	SUSrP	Super User Password	Administrator Password		Enter a 5-digit number, press (12345*)
	USr-C	User Certification	User Authorization		(1) Off (2) On*
	CLEARn	Cleaning	Camera Cleaning		
	UtEst	Unit Test	Unit Connection Test		

● Administrator Authorization

1. Press the CAM/SET button while [SEtUP] is displayed. The [- - - -] prompt appears.
2. Enter a password with the numeric buttons, then press the CAM/SET button. The default setting is [12345].
3. [SPEED] appears when the right password is entered. If password entry failed, the menu returns to [- - - -].

Notes:

- We recommend that you register a new password different from "12345" in [SUSrP], and note down the registered password for future reference.
- Powering up the controller while holding down numeric buttons 2, 4 and 5 simultaneously will reset the password to "12345". Remember that this procedure also resets all other menu parameters to the default settings.

● Baud Rate

In this menu, the communication speed (bps: bits per second) is selected. The communication speed should match that of the other units connected in the communication chain.

1. Display [SPEED] and press the CAM/SET button twice.
2. Select a parameter entering a bracket-enclosed number, e.g., (3), moving the joystick right and left, or pressing the [+] and [-] button. The default setting is 19 200 bps.

- (1) 2 400:** 2 400 bps
- (2) 4 800:** 4 800 bps
- (3) 9 600:** 9 600 bps
- (4) 19 200:** 19 200 bps

Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).

3. Press the CAM/SET button to validate the selection.
4. Press the ESC button to go back to the previous menu.

● Parity

In this menu, the parity check mode is selected.

1. Display [PrtY] and press the CAM/SET button twice.
2. Select a parameter with the joystick. The default setting is None.

- n:** None
- E:** Even parity

3. Press the CAM/SET button to validate the selection.
4. Press the ESC button to go back to the previous menu.

● Wait Time

In this menu a wait time is selected. The controller will retransmit data when there is no response during the specified wait time.

1. Display [LJAit] and press the CAM/SET button twice.
2. Select a parameter with the joystick. The default setting is Off.

- (1) OFF:** Off, no retransmission of data
- (2) 100:** 100 ms
- (3) 200:** 200 ms
- (4) 400:** 400 ms
- (5) 500:** 500 ms
- (6) 1 000:** 1 s

3. Press the CAM/SET button to validate the selection.
4. Press the ESC button to go back to the previous menu.

The following two menus should be maintained in the default condition.

● Controller Unit-Group Address

[CU-gr] appears on the Setup menu, but leave the default as it is.

● System Unit-Group Address

[SU-gr] appears on the Setup menu, but leave the default as it is.

● Unit A button Assignment

In this menu, a maximum of 9 system units is assigned to numeric buttons 1-9 regardless of unit address.

This is to avoid double-digit unit addresses which can occur in a large system with many units connected and could confuse operators.

A frequently used system unit can be easily selected in normal operation by pressing one numeric button and then the UNIT A button.

1. Display [UA-no] and press the CAM/SET button. The LED displays [A1-01] while "1" following A blinks. The first 2 digits from A1 to A9, "A numbers", stand for numeric buttons from 1 to 9 to be pressed prior to UNIT A button in normal operation. The next 2 digits are the unit address assigned in the following procedures. The default setting is shown below.

A1-01
A2-02
A3-03
A1-04
A5-05
A6-06
A7-07
A8-08
A9-09

2. Select an "A number" entering a number from 1 to 9, then press the CAM/SET button. The LED displays "A number" A3 when numeric button 3 is entered for example.

Available A numbers: 1-9

3. Press the CAM/SET button to validate the selection. The LED displays [A3-03] while the next two digits are blinking.
4. Enter a 2-digit unit address that you wish to assign to the "A number" (e.g., A3), then press the CAM/SET button. The LED displays [A3-99], for example, when you enter unit address 99.

Available addresses: 01-99

5. Press the CAM/SET button to validate the selection. Repeat above the steps 2 to 5 as needed.
6. Press the ESC button to go back to the previous menu.

● Unit B button Assignment

The UNIT B button is set up in the same way as the UNIT A button for use in normal operation. Refer to the above description for Unit A button Assignment.

● User Password

In this menu, a 5-digit password for user authorization is registered.

1. Display [UsrP] and press the CAM/SET button. The LED displays the registered password.
2. Enter a 5-digit password with the numeric buttons. The default setting is [12345].

Available password digits: 00000-99999

3. Press the CAM/SET button to validate the selection.
4. Press the ESC button to go back to the previous menu.

● Administrator Password

In this menu, a 5-digit password for administrator certification is registered.

1. Display [SUsrP] and press the CAM/SET button. The LED displays the registered password.
2. Enter a 5-digit password with the numeric buttons. The default setting is [12345].

Available password digits: 00000-99999

3. Press the CAM/SET button to validate the selection.
4. Press the ESC button to go back to the previous menu.

● User Password Certification

In this menu, password certification in normal operation is enabled or disabled.

1. Display [USr-C] and press the CAM/SET button. The LED displays [UC-on] or [UC-of].
2. Select On or Off with the joystick controller. The default setting is On.
on: Password certification enabled.
oF: Password certification disabled.

3. Press the CAM/SET button to confirm the selection.
4. Press the ESC button to go back to the previous menu.

● Camera Cleaning

This menu is for specifying the order in which combination cameras connected to the system are cleaned.

The camera cleaning function causes cleaning of the built-in slip rings that conduct electric signals while moving the pan/tilt head. All combination cameras connected to the system are cleaned in the order specified here. Picture viewing is disabled during the cleaning process.

1. Display [CLEAn] and press the CAM/SET button. The LED displays [no-01].
2. Use the numeric buttons to enter the number of the camera where cleaning is to start.
The default setting is no-01.

Available camera numbers: 01-199

3. Press the CAM/SET button to start cleaning.
Two animated digits appear in the left part of the LCD while the digits at right display the number of the camera being cleaned.
When cleaning is finished, the number of the last camera cleaned is displayed without animation.
4. Press the ESC button to go back to the previous menu.

● Unit Connection Test

This menu is for specifying the order in which data communication between system units is tested prior to operating the system as a whole.

1. Display [UtEst] and press the CAM/SET button. The LED displays [01-on] or [01-oF].
2. Enter the 2-digit unit number you wish to start with.
3. Press the CAM/SET button to start the test.
The digits in the left part of the LCD display the unit number under test while 2 animated digits appear at right.
To stop the test in progress, press the CAM/SET button.
When testing is finished, the number of the last unit tested is displayed without animation.
4. Press the CAM/SET button. Enter a 2-digit number(e.g., 01), then press the CAM/SET button.
You can now confirm the test results of a specific unit. When Off is displayed, check connections, switch settings, etc., of the system unit.

01-on: On, unit 01 is connected.

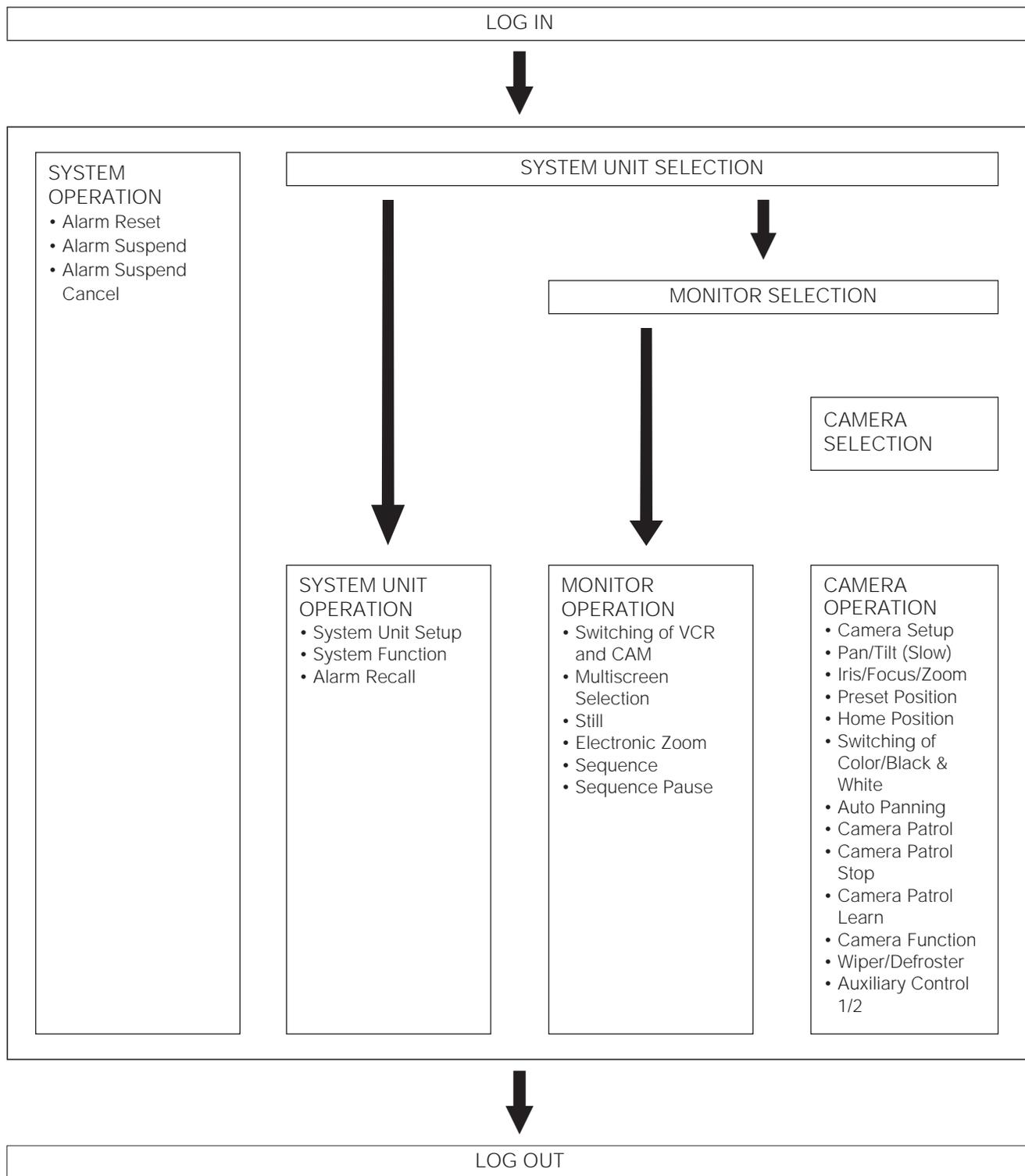
01-oF: Off, unit 01 is disconnected.

5. Press the ESC button to go back to the previous menu.

OPERATING PROCEDURES (PS•Data)

■ Basic Operating Flow

The operation starts with a log-in procedure. It proceeds to system unit selection, monitor selection and camera selection. Alarm operations for the system such as alarm reset, suspension may be implemented. The operation ends with a log-out procedure.



■ Login/Logout

● Log In

Right after powering up, the controller will be operable without password entry, provided user password certification is set to Off in the setup menu.

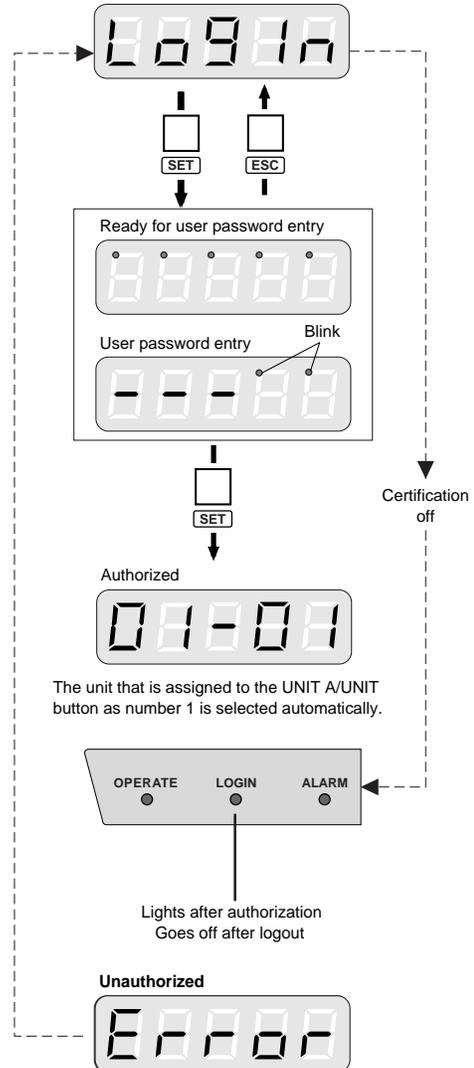
When set to On, you will be prompted to enter your registered password. The default password is "12345", but you need to remember the password assigned to you by your system administrator.

1. Insert the DC plug into the DC 9 V IN jack and connect the AC adapter to an AC outlet.
2. The controller number, software versions and [LogIn] appear in that order on the LED display. The LOGIN indicator lights up. The controller is now operable unless password certification is activated. If it is not activated, proceed as follows.
3. Press the CAM/SET button.
4. Enter a 5-digit user password with the numeric buttons. The initial factory setting is [12345].
5. Press the CAM/SET button.
6. If password entry for user authorization has been successful, the LOGIN indicator lights up. The unit assigned to the UNIT A/UNIT button as number 1 is selected automatically. If password entry has failed, [Error] appears on the display. The display returns to [LogIn].

● Log Out

1. Press the MON/ESC and CAM/SET buttons for about 2 seconds simultaneously.
2. [LogIn] appears on the display and the LOGIN indicator goes off.
3. Disconnect the DC plug from the controller, and remove the AC adapter from the AC outlet.

Note: If the power is not turned off after logout, the alarm indicator and alarm suspend indicator will display the same status as in normal operation.

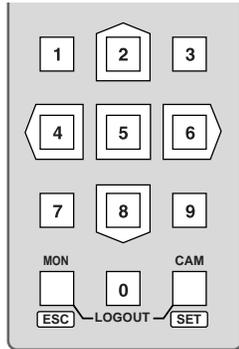


■ System Unit Selection

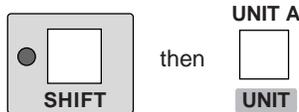
Connected system units can be selected either by their unit number (01-99) or by a single-digit number (1-9) assigned to the UNIT A or UNIT B button.

● Selecting with Unit Number

1. Enter a unit number (01-99) with the numeric buttons.



2. Press the **SHIFT** button to turn the shift indicator on, then press the **UNIT A/UNIT** button.



The selected unit number appears in the unit section of the LED display.

The selected camera number appears in the camera section of the LED display.

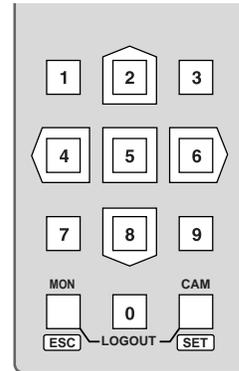
Notes:

- To confirm the selected unit number when the monitor number appears in the unit section of the LED display, take procedure 2 or press MON/ESC button.
- If no unit is connected, [Err] appears a few seconds after unit selection. In such a case, confirm the unit address and repeat the above procedure.
- If the unit address of a system unit is unknown, consult your system administrator.
- When multiple system units such as Data Multiplex Unit are connected to the System Controller and the UNIT A or UNIT B button is pressed, the camera number on the controller's LED display will not agree with the camera picture on the monitor. In this case, select the monitor and camera as described on the next page.

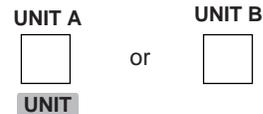
● Selecting with UNIT A/UNIT B Button

The unit numbers (01-99) of some frequently used units can be assigned to numeric buttons 1-9 in the setup. Units can be divided in two groups, one assigned to the UNIT A and the other to the UNIT B button. A frequently used system unit can be easily selected by pressing one numeric button and then the UNIT A or UNIT B button.

1. Enter a single digit number (1-9).
Omit this step when you wish to select unit number "1", as this unit is selected by default.



2. Press the **UNIT A** or **UNIT B** button while the SHIFT indicator is off.



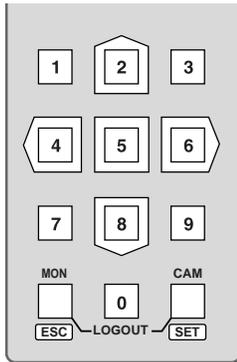
The selected unit address appears in the unit section of the LED display.

The selected camera number appears in the camera section of the LED display.

■ Monitor Selection

A monitor is selected when multiple monitors are connected to a system unit (e.g., a Video Multiplexer) to control such functions as multiscreen display and electronic zoom.

1. Select the system unit connected to the monitor you wish to control.
2. Enter a monitor number using the numeric buttons.



3. Press the **MON/ESC** button.



The selected monitor number appears in the monitor section of the LED display.

The selected camera number appears in the camera section of the LED display.

The monitor is now ready for control from the system controller.

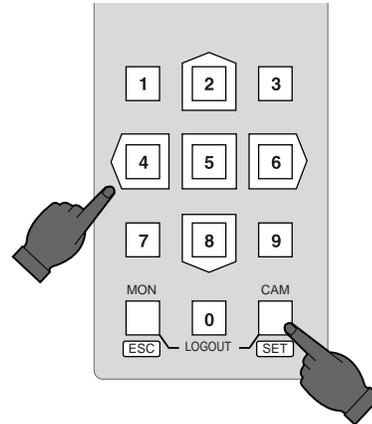
Notes:

- To confirm the selected monitor number, simply take procedure 3 when the unit address appears in the monitor section of the LED display.
- Each time the MON/ESC button is pressed, the unit number and monitor number are displayed alternately on the LED.
- The setting is invalid if the unit in which the monitor number has been set is not programmed.
- In the above case, repeat the same procedure after confirming the monitor number. If you do not know the monitor number, consult the administrator.
- When [-] appears in the monitor section of the LED display, the selected system unit is not compatible with the monitor selection.
- For further information, refer to the Operating Instructions for the system unit concerned.

■ Camera Selection

One of the cameras connected to the system unit is selected.

1. Select a system unit connected to the camera whose picture you wish to view.
2. Enter a camera number using the numeric buttons. The entered camera number appears on the LED display.
3. Press the **CAM/SET** button.



Note: [-] appears in the camera section of the LED display when an alarm is activated, when the multiscreen is displayed, or when a sequence mode is running.

The following functions are available after selecting a camera.

- Pan/tilt
- Focus
- Zoom
- Iris
- Defroster ON/OFF (camera housing)
- Wiper ON/OFF (camera housing)
- Preset Position (Combination Camera)
- Home position (Combination Camera)
- Switching between color and B/W picture (Combination Camera)
- Auto pan (Combination Camera)
- Patrol Learn function (Combination Camera)
- Camera functions (Combination Camera)

The selected camera number can be incremented or decremented by one if the system unit is equipped with the camera switching feature.

1. Press the **SHIFT** button to turn the shift indicator on.
2. Press the **EL-ZOOM/+** button to increment or the **STILL/-** button to decrement the camera number.

■ Camera Control

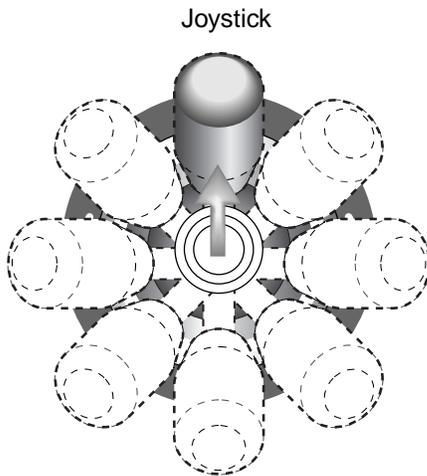
Cameras and their peripherals are controlled from the WV-CU360C as follows. Some of the descriptions may not be applicable if they refer to devices not equipped in your system.

The operating procedures on the following pages assume that you have selected a system unit and a monitor.

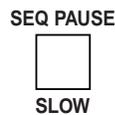
● Pan/Tilt Control

Proceed as follows to control a combination camera or an ordinary camera mounted on a pan/tilt head.

1. Move the pan/tilt head in the desired direction with the joystick controller.



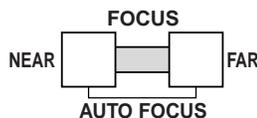
2. To slowly move the pan/tilt head, move the joystick while holding down the **SLOW** button.



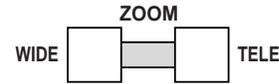
● Lens Control

This allows you to control a motorized lens.

1. Press the **FOCUS NEAR** or **FOCUS FAR** button to adjust the lens focus while watching the monitor. If you are using a camera with an auto focus feature, the lens focus can be automatically adjusted by pressing the **FOCUS NEAR** and **FOCUS FAR** buttons simultaneously.

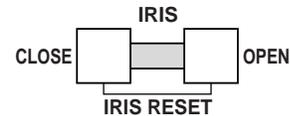


2. Press the **ZOOM TELE** button to optically bring the object closer, or press the **ZOOM WIDE** button to optically widen the scene.



3. Press the **IRIS CLOSE** button to close the iris, or the **IRIS OPEN** button to open the iris.

If the **IRIS CLOSE** and **IRIS OPEN** buttons are pressed simultaneously, the iris is reset to the default.



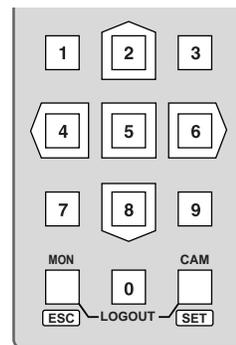
● Home/Preset Position

The camera moves to the preset position or back to the home position, and the picture of the camera in that position appears on the monitor.

1. Press the **HOME/PRESET** button to move the camera back to the home position.



2. Select a preset position number using the numeric buttons, then press the **HOME/PRESET** button to move the camera to the position.



● Combination Camera Shortcuts

The shortcuts listed below are available for controlling combination cameras. For more details, refer to the Operating Instructions included with the camera.

Function	Key	Function	Key
Selecting a PRESET position	From #1 to #64	EL-ZOOM	
#1	[1] + [CAM FUNC]	On	[9] + [8] + [CAM FUNC]
#10	[1] + [0] + [CAM FUNC]	Off	[9] + [9] + [CAM FUNC]
#64	[6] + [4] + [CAM FUNC]	RESTART	
AUTO PAN		Begin	[1] + [0] + [0] + [CAM FUNC]
ON	[6] + [5] + [CAM FUNC]	Memorize PRESET	From #1 to #64**
OFF	[6] + [6] + [CAM FUNC]	Position #1	[1] + [0] + [1] + [CAM FUNC]
Speed Up	[6] + [7] + [CAM FUNC]	Position #10	[1] + [1] + [0] + [CAM FUNC]
Speed Down	[6] + [8] + [CAM FUNC]	Position #64	[1] + [6] + [4] + [CAM FUNC]
Setting Start Point	[6] + [9] + [CAM FUNC]	PATROL	
Setting End Point	[7] + [0] + [CAM FUNC]	PLAY	[1] + [6] + [5] + [CAM FUNC]
Setting PAN Reverse	[7] + [4] + [CAM FUNC]	STOP	[1] + [6] + [6] + [CAM FUNC]
AUTO MODE		LEARN(Start)	[1] + [6] + [7] + [CAM FUNC]
MODE Off	[7] + [1] + [CAM FUNC]	IRIS	
SEQ On	[7] + [2] + [CAM FUNC]	Open	[1] + [6] + [9] + [CAM FUNC]
SORT On	[7] + [3] + [CAM FUNC]	Close	[1] + [7] + [0] + [CAM FUNC]
ENDLESS PAN		EL-SHUTTER	
On	[7] + [6] + [CAM FUNC]	On	[1] + [7] + [1] + [CAM FUNC]
Off	[7] + [7] + [CAM FUNC]	Off	[1] + [7] + [2] + [CAM FUNC]
DIGITAL FLIP CS854A		Speed Up	[1] + [7] + [3] + [CAM FUNC]
On	[7] + [8] + [CAM FUNC]	Speed Down	[1] + [7] + [4] + [CAM FUNC]
Off	[7] + [9] + [CAM FUNC]	AGC	
PROP. PAN/TILT CS854A		On	[1] + [7] + [5] + [CAM FUNC]
On	[8] + [0] + [CAM FUNC]	Off	[1] + [7] + [6] + [CAM FUNC]
Off	[8] + [1] + [CAM FUNC]	SENS UP CS854A	
SUPER-D2		On	[1] + [7] + [7] + [CAM FUNC]
On	[8] + [4] + [CAM FUNC]	Off	[1] + [7] + [8] + [CAM FUNC]
Off	[8] + [5] + [CAM FUNC]	Up	[1] + [7] + [9] + [CAM FUNC]
AUTO FOCUS		Down	[1] + [8] + [0] + [CAM FUNC]
STOP AF On*	[8] + [6] + [CAM FUNC]	SENS UP AUTO CS854A	
STOP AF Off*	[8] + [7] + [CAM FUNC]	On	[1] + [8] + [1] + [CAM FUNC]
AF On (Activate)	[8] + [8] + [CAM FUNC]	Off	[1] + [8] + [2] + [CAM FUNC]
HOME POSITION		Up	[1] + [8] + [3] + [CAM FUNC]
Move to HOME	[8] + [9] + [CAM FUNC]	Down	[1] + [8] + [4] + [CAM FUNC]
B/W or C/L CS854A		LL SYNC phase	
B/W On*	[9] + [0] + [CAM FUNC]	INC	[1] + [8] + [5] + [CAM FUNC]
B/W Off*	[9] + [1] + [CAM FUNC]	DEC	[1] + [8] + [6] + [CAM FUNC]
B/W AUTO*	[9] + [2] + [CAM FUNC]	PAN	
CAMERA ID		180° turn	[1] + [8] + [7] + [CAM FUNC]
On	[9] + [3] + [CAM FUNC]	CLEANING	
Off	[9] + [4] + [CAM FUNC]	On	[1] + [8] + [8] + [CAM FUNC]
AREA TITLE CS854A		Off	[1] + [8] + [9] + [CAM FUNC]
NESW On	[9] + [5] + [CAM FUNC]	BW SW AUTO CS854A	
USER On	[9] + [6] + [CAM FUNC]	30 sec.	[1] + [9] + [0] + [CAM FUNC]
TITLE Off	[9] + [7] + [CAM FUNC]	60 sec.	[1] + [9] + [1] + [CAM FUNC]
		300 sec.	[1] + [9] + [2] + [CAM FUNC]
		600 sec.	[1] + [9] + [3] + [CAM FUNC]

Notes:

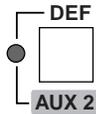
- Shortcut operations marked with * will change parameter settings only. Actual operation takes place when the conditions for the changed settings are met.
- When entering shortcuts marked with **, "NO REGS. ; FLIP ON" may appear on the monitor. Re-enter the shortcut.
- Shortcuts may be ignored while PAN/TILT, ZOOM or FOCUS is in operation.
- PATROL LEARN saves only [1] through [6]+[4], [1]+[6]+[9] and [1]+[7]+[0] in the memory.
- PATROL PLAY stops when a shortcut other than [1]+[6]+[9] or [1]+[7]+[0] is entered.

● Housing/AUX Control

When your system includes a camera housing, the defroster and wiper equipped in it are controlled. When a Receiver is installed in the system, an auxiliary device connected to it such as a buzzer or lamp will be also controlled.

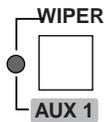
● Defroster

Press the **DEF/AUX 2** button to enable or disable defroster operation for the selected camera. The **DEF/AUX 2** indicator next to the button is lit while it is in operation.



● Wiper

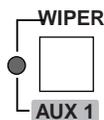
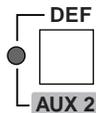
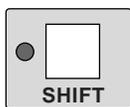
Press the **WIPER/AUX 1** button to enable or disable wiper operation for the selected camera. The **WIPER/AUX 1** indicator next to the button is lit while it is in operation.



Note: To prevent early wiper wear, be sure to turn off the wiper whenever it is not needed, or before selecting another camera for viewing.

● Auxiliary 1/2

1. Press the **SHIFT** button to turn the SHIFT indicator on.
2. Press the **WIPER/AUX 1** or **DEF/AUX 2** button to enable or disable the auxiliary function for the selected camera. The respective indicator next to the button is lit while it is in operation.



Note: Auxiliary control may be ignored while zooming, focusing or panning/tilting is in operation.

■ Data Multiplex Unit Control

When more than one Data Multiplex Unit are connected with the controller as shown in System Connection Example 2 on page 14, you can select a camera directly with the camera number, without typing a system unit address.

● Setting

Camera numbers are specified by the UNIT switch or in the setup menu for the WJ-MP204C.

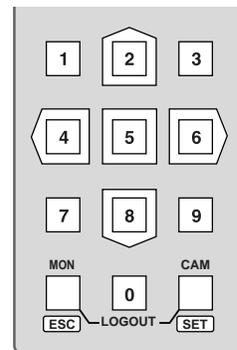
For further details, refer to the manual included with the Data Multiplex Unit.

Unit Address of WJ-MP204C	Camera Number
1	1, 2, 3, 4
2	5, 6, 7, 8
3	9, 10, 11, 12
4	13, 14, 15, 16

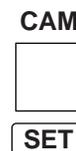
When more than one controller is connected in the system, remember settings are needed for the MODE DIP switch and CONTROLLER NO. switch of the controllers as described on page 16.

● Camera Selection

1. Press a camera number using the numeric buttons.



2. Press the **CAM/SET** button.



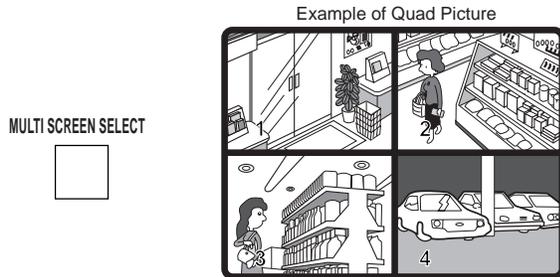
■ Video Multiplexer Control

Some of the major functions equipped in a Video Multiplexer are remotely controlled from the System Controller. For more information, refer to the manual included with the Video Multiplexer.

The operating procedures on the following pages assume that you have selected a system unit and a monitor.

● Multiscreen Selection

1. Press the **MULTISCREEN SELECT** button. The selected multiscreen monitor displays a split screen.



2. Press the button repeatedly to select the number of segments you wish the multiscreen to display. Each time the button is pressed, the number changes as follows depending on the number of inputs (16 or 9).

16-input: 4 → 9 → 16 → 4 screen segments

9-input: 4 → 9 → 4 screen segments

● Still Picture

There are two ways of displaying still pictures on the multiscreen monitor.

● Specific camera still

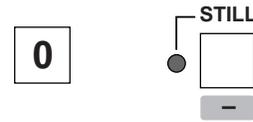
1. Select a camera number using the numeric buttons, then press the **STILL/-** button. The selected camera picture freezes on the multiscreen while the **STILL/-** indicator is lit.



2. Press the **STILL/-** button to cancel still display mode.

● All cameras still

1. Enter 0 with the numeric buttons, then press the **STILL/-** button. All camera pictures freeze on the multiscreen while the **STILL/-** indicator is lit.

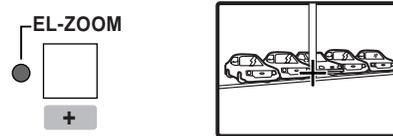


2. Press the **STILL/-** button to cancel the still display mode.

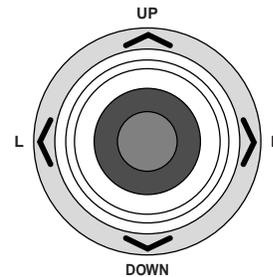
● Electronic Zoom

A picture displayed on the monitor can be electronically zoomed in, and the enlarged area in the picture can be moved using the joystick.

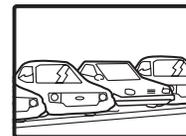
1. Press the **EL-ZOOM/+** button. The **EL-ZOOM/+** indicator is lit, and a plus mark [+] appears in the center of the monitor screen.



2. Move the [+] mark into the zoom area moving the joystick.



3. Press the **EL-ZOOM/+** button again to zoom.



You can move the enlarged area on the monitor using the joystick.

4. Press the **EL-ZOOM/+** button to cancel the zoom mode. The **EL-ZOOM/+** indicator goes off.

● Viewing Playback

VCR playback pictures are displayed on the selected spot or multiscreen monitor.

1. With the connected VCR in playback mode, press the **VCR/CAM** button to turn on the VCR indicator. Playback pictures are displayed on the selected monitor.



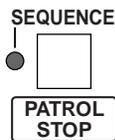
2. Press the **VCR/CAM** button again to cancel viewing playback. The VCR indicator goes off.

Note: This function is automatic when PLAYBACK AUTO is set to ON in the Video Multiplexer setup and the playback signal is supplied to the Video Multiplexer. Set PLAYBACK AUTO to OFF in the setup when you wish manual operations as described above.

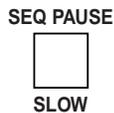
● Sequence Control

A preset sequence is displayed on the selected spot or multiscreen monitor. The paused picture can be moved by one step to the previous or next frame.

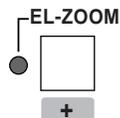
1. Press the **SEQUENCE** button. The sequence is displayed on the monitor while the **SEQUENCE** indicator is lit.



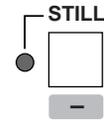
2. To pause the sequence, press the **SEQ PAUSE** button.



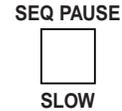
3. To move the sequence one step forward, press the **EL-ZOOM/+** button.



4. To move the sequence one step back, press the **STILL/-** button.



5. To cancel the sequence pause, press the **SEQ PAUSE** button again.



■ Digital Disk Recorder Control

A Digital Disk Recorder is controlled from the System Controller using shortcuts assigned to numeric buttons.

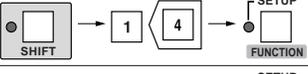
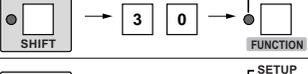
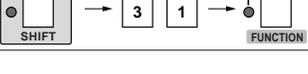
For more information, refer to the manual included with the Digital Disk Recorder.

The operating procedures on the following pages assume that you have selected a system unit and a monitor.

● WJ-HD100 Shortcuts

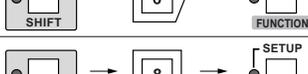
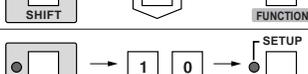
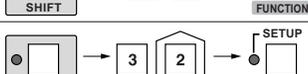
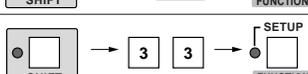
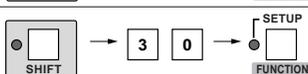
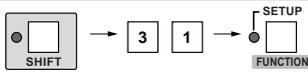
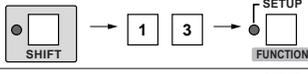
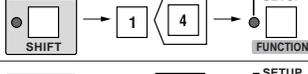
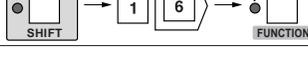
The shortcuts listed below are available for controlling a digital disk recorder. For more details, refer to the Operating Instructions included with the digital disk recorder.

Item	WJ-HD100	WV-CU360C	Note
Show/Hide SETUP MENU	Hold down 2 seconds 	Hold down 2 seconds 	Button lock is released automatically by opening the setup menu.
Setup Item Selection	 	 	
Parameter Selection		 	
Move Cursor Back A Step			
Show/Hide Alarm History	Operate LCD Button.	 	
Search Alarm History		 	
Play/Stop Selected Alarm Record	 	 	
Recording		 →  → 	
Stop	 	 →  → 	
Stop Playback		 →  → 	Exclusive use to stop playback.
Stop Recording		 →   → 	Exclusive use to stop recording.
Playback		 →  → 	
Pause		 →  → 	
Step Playback FWD.	 	 →  → 	
Step Playback REW.	 	 →  → 	
Skip Playback FWD.	 	 →   → 	
Skip Playback REW.	 	 →   → 	
Jump to Latest.	  → Press JogDial	 →  → 	The top of the latest record will be accessed.
Jump to Oldest.	  → Press JogDial	 →  → 	The top of the oldest record will be accessed.

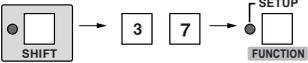
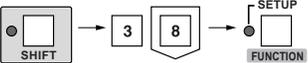
Item	WJ-HD100	WV-CU360C	Note
DAYLIGHT SAVINGS			
Timer REC Mode Selection	Operate LCD Button.		OFF, INT or EXT selectable
Button Lock OFF	Operate LCD Button.		
Button Lock ON	Operate LCD Button.		

● WJ-HD500A Shortcuts

The shortcuts listed below are available for controlling a digital disk recorder. For more details, refer to the Operating Instructions included with the digital disk recorder.

Item	Controller Operation	Note
Step Playback FWD		
Step Playback REW		
Pause		
Playback		
Recording		Equal to REC button
Stop		For both Manual Recording and Playback
Stop Playback		Exclusive use to stop playback
Stop Recording		Exclusive use to stop recording
Alarm Search OFF		
Alarm Search ON		
Button Lock OFF		
Button Lock ON		
Daylight Savings ON/OFF		
Timer Mode Selection		Internal, External, Off
Record List Display ON/OFF		Index
Record Search Window ON		Index/Shuttle

Item	Controller Operation	Note
Screen Display ON/OFF		
Group Selection		
Show/Hide Alarm Log		
Skip Playback FWD.		Speed change 1/2, 1, 2, 5
Skip Playback REW.		Speed change 1/2, 1, 2, 5
Record List 1 line Up		
Record List 1 line Down		
Record List Turn Next Page		
Record List Turn Prev. Page		
Playback of Selected Record		Record List
Backward Search in Window		Record List
Forward Search in Window		Record List
Increment Parameter in Window		Record List
Decrement Parameter in Window		Record List
Search Window Display ON/OFF		Record List
Alarm Log 1 line Up		
Alarm Log 1 line Down		
Playback of Selected Alarm Record		Alarm Log
Backward Search in Window		Alarm Log
Forward Search in Window		Alarm Log
Increment Parameter in Window		Alarm Log
Decrement Parameter in Window		Alarm Log
Search Window Display Selection		Time & Date, Alarm CH, OFF

Item	Controller Operation	Note
Copy to DVD		
Copy Cancel		
DVD Copy Record Display		Equal to EL-ZOOM

■ Alarm Operation

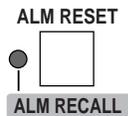
When the WV-CU360C receives an alarm signal from a system unit, the alarm indicator on the controller blinks.

The alarm indicator changes from blinking to steady light when the alarm is automatically reset.

The camera number [---] appears in the camera section of the LED display.

● Alarm Reset

1. Press the **ALM RESET/ALM RECALL** button.



The alarm indicator on the controller goes off.

Notes:

- Alarm reset operations including auto reset are applied to all system units, not to a selected one.
- Alarm reset mode differs depending on the system unit connected to the WV-CU360C.
- Confirm that the SHIFT button is released.

● Alarm Suspension

The alarm suspension mode is activated or deactivated. Use this function when you do not want to be disturbed by alarm input as for example during setup operations.

1. Press the **ALM SUSPEND** button. The **ALM SUSPEND** indicator lights up.
Alarm input is ignored while the indicator is lit.



2. To cancel alarm suspension, press the **ALM SUSPEND** button again.

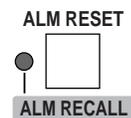
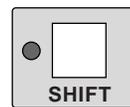


Note: The alarm suspension is applied to all system units, not to a selected one.

● Alarm Recall

The alarm event log is recalled and displayed on the monitor.

1. Select the desired system unit and monitor.
2. Press the **ALM RESET/ALM RECALL** button while the **SHIFT** indicator is lit. The **ALM RECALL** indicator lights up. The alarm log appears on the monitor.



3. To cancel the alarm recall function, press the **ALM RESET/ALM RECALL** button while the **SHIFT** indicator is lit.

REMOTE SETUP of UNITS & CAMERAS

You can set up the system unit and the camera with the setup menu by this controller.

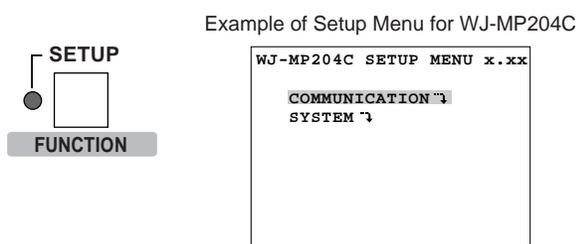
You can use the controller to set up system units and cameras.

This section describes the main remote setup procedures. Some of the descriptions may not be applicable if they refer to devices not equipped in your system.

For further information on the default settings and operating procedures, refer to the Operating Instructions included with the individual units.

System Unit Setup

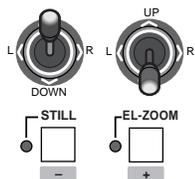
1. Select the desired system unit compatible with PS·Data mode.
2. Press the **SETUP/FUNCTION** button for more than 2 seconds. The **SETUP** indicator lights up. The Setup menu for the system unit appears on the monitor.



3. To complete the setup, press the **SETUP/FUNCTION** button for 2 seconds or more. The **SETUP** indicator goes off.

Note: If you change the default baud rate or parity check, the system unit setup function is disabled.

Keys used for system unit setup



To move the cursor.

To select a parameter.



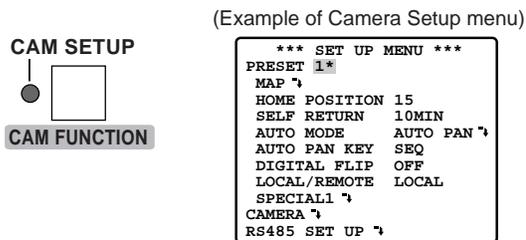
To execute the parameter or enter a submenu



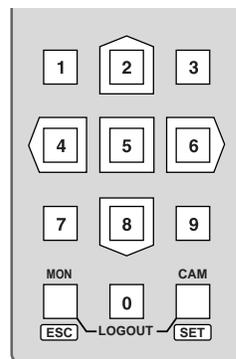
To return to the previous menu

Camera Setup

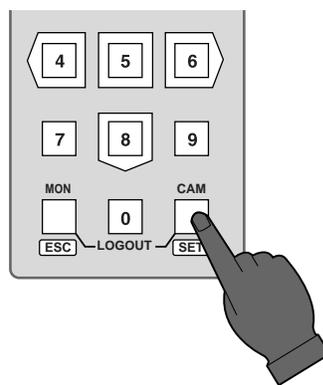
1. Select the desired camera.
2. Press the **CAM SETUP/CAM FUNCTION** button for 2 seconds or more to access the Camera Setup menu. The **CAM SETUP** indicator lights up.



3. Move the cursor with the numeric buttons 2 (Up) or 8 (Down), then select a parameter with the buttons 6 (Right) or 4 (Left).



4. Press the **CAM/SET** button to execute the parameter or enter a submenu.



5. To return to the previous menu, press the **MON/ESC** button.
6. Press the **CAM SETUP/CAM FUNCTION** button for 2 seconds or more to complete the camera setup.

7. Move the cursor to [SPECIAL] on the Setup menu, and press numeric buttons **4** and **6** simultaneously for 2 seconds or more to display the special menu.
8. Move the cursor to [CAMERA RESET]* on the Setup menu, and press buttons **4**, **5** and **6** simultaneously to reset all the functions to the defaults.

* The menu to reset the camera functions differs depending on the camera:
 [SPECIAL] for the WV-CS650, [SPECIAL 2] for the WV-CS854, and [END] for fixed cameras etc.

Notes:

- If camera setup is started using the buttons on the camera, all future operations for setup must be performed using the buttons on the camera. If camera setup is started using the System Controller, all future operations for setup must be performed using the same controller.
- For further information, refer to the Operating Instructions for the selected camera.

Keys used for camera setup



To move the cursor



To select a parameter



To execute the mode or enter a submenu



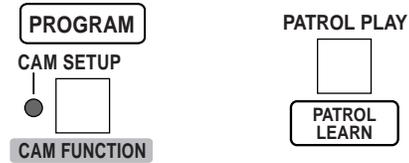
To return to the previous menu

■ Camera Patrol Learning

There are two ways of setting up camera patrol learning. One is to use the camera setup menu and the other is to operate the camera.

Follow the procedures below to set up while operating the combination camera.

1. Select the desired system unit, monitor and combination camera.
2. Press the **PATROL PLAY/PATROL LEARN** button while holding down the **PROGRAM/CAM SETUP/CAM FUNCTION** button.



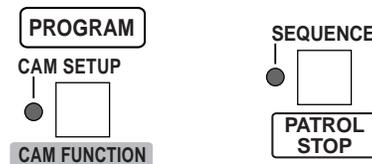
[LEARNING] appears on the monitor.



3. Operate the camera using the following controls so that it traces a routine course most frequently patrolled. The learning is programmed for 30 seconds for later patrol play.
 - Pan/Tilt (Joystick)
 - Iris (Open/Close)
 - Focus (Far/Near)
 - Zoom (Tele/Wide)
 - Preset Position

Note: The memorized parameters may differ somewhat depending on the camera type. Refer to the manual included with the camera.

4. To stop the learning, press the **SEQUENCE/PATROL STOP** button while holding down the **PROGRAM/CAM SETUP/CAM FUNCTION** button.

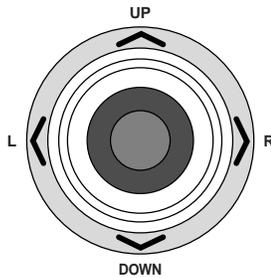


[LEARNING] disappears from the monitor.

■ Camera Preset Position

There are two ways of presetting camera positions. One is to use the camera setup menu of the combination camera and the other is to operate the System Controller as follows.

1. Select the desired system unit, monitor and camera.
2. Move the camera to a position you wish to preset, using the joystick.

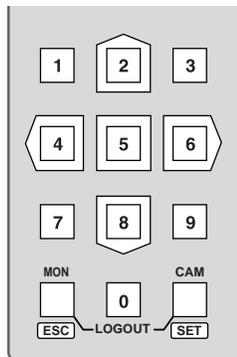


Adjust the picture using the following buttons.

- Iris (Open/Close)
- Focus (Far/Near)
- Zoom (Tele/Wide)

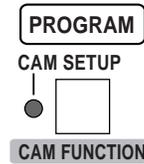
Note: The memorized parameters may differ somewhat depending on the camera type. Refer to the manual included with the camera.

3. Type a number with the numeric buttons for the preset position. The typed number appears in the CAMERA section of the LED display.



4. Press the **HOME/PRESET/PROGRAM PRESET** button while holding down the **PROGRAM/CAM SETUP/CAM FUNCTION** button.

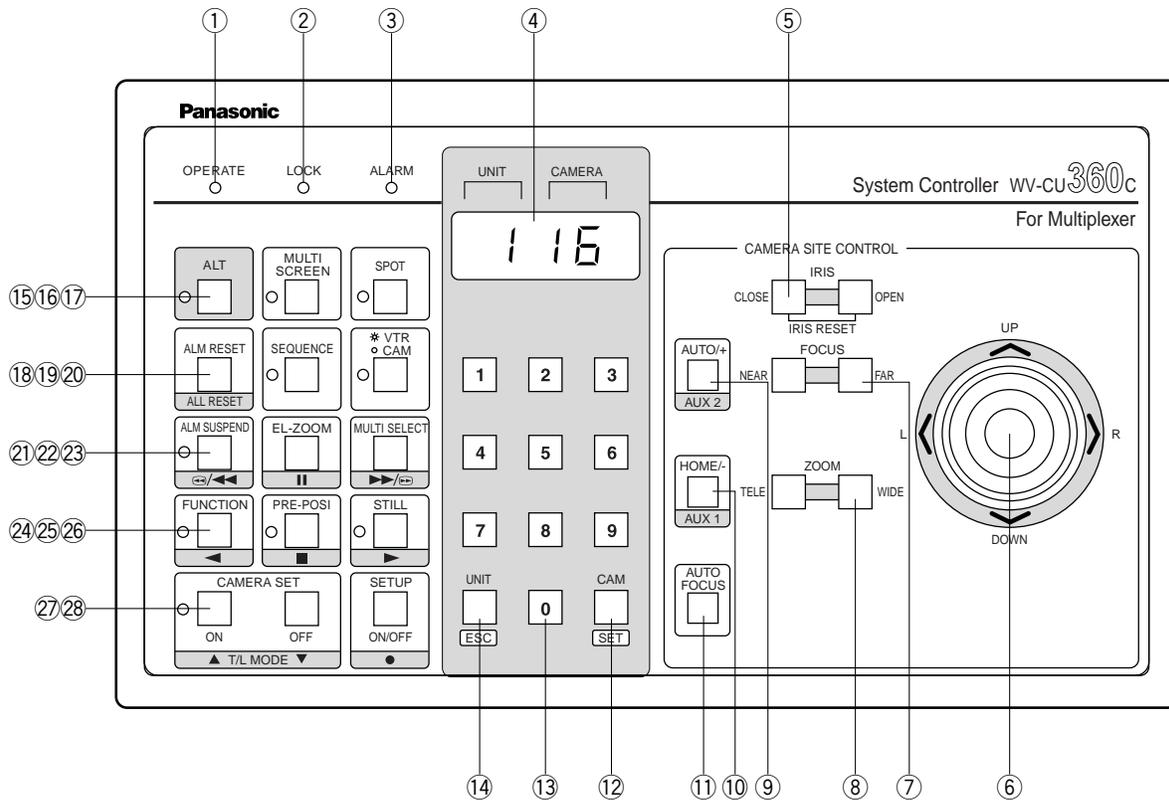
The position and its number are memorized for later recall.



**For WJ-FS616C
Multiplexer System**

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for WJ-FS616C)



① Operate Indicator (OPERATE)

Is lit while power is supplied to the System Controller.

② Lock Indicator (LOCK)

Is lit while operation of the System Controller and WJ-FS616C is prohibited by the connected computer. The lock can be released by sending a command from the computer.

③ Alarm Indicator (ALARM)

Blinks when an alarm is activated. Blinking changes to steady light when the alarm is automatically reset. To turn the indicator off, press the **ALM RESET** button.

④ LED Display (UNIT CAMERA)

LED display allowing you to confirm the number of the system unit and camera in operation. The CAMERA section will display “-” when operating in multiscreen or sequence mode.

⑤ Iris buttons (IRIS, CLOSE/OPEN)

Close or open the lens iris of cameras equipped with the specified lens. When these buttons are pressed at the same time, the lens iris is reset to the factory setting.

⑥ Joystick Controller (UP/DOWN/L/R)

Used to operate the pan/tilt head manually, or to move the cursor to the desired position in the setup menu of the Video Multiplexer.

- UP: Upward
- DOWN: Downward
- L: Left
- R: Right

⑦ Focus buttons (FOCUS, NEAR/FAR)

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

⑧ Zoom buttons (ZOOM, TELE/WIDE)

Zoom cameras equipped with the specified lens.

⑨ Auto/Increment button (AUTO/+)

Activates the auto panning function. During the setup, this button is used to select the desired parameter in the setup menu.

- ⑩ **Home/Decrement button (HOME/-)**
 Moves the camera to the home position.
 During the setup, this button is used to select the desired parameter in the setup menu.
- ⑪ **Auto Focus button (AUTO FOCUS)**
 Activates the auto focus function when the specified camera with auto focus feature is selected.
- ⑫ **Camera/Set button (CAM/SET)**
CAM: Selects a camera. Enter a camera number with the numeric buttons, then press the CAM/SET button.
SET: Executes the currently highlighted setting in the setup menu.
- ⑬ **Numeric Buttons (0 - 9)**
 These buttons are used for numeric input into the system, such as the number of a camera you want to select.
- ⑭ **Unit/Escape button (UNIT/ESC)**
UNIT: Selects a WJ-FS616C unit. Enter a unit number with numeric buttons, then press the UNIT/ESC button.
ESC: Escapes from the currently highlighted selection and return to the previous menu window in the setup.
- ⑮ **Alternate button (ALT)**
 In combination with certain other buttons, activates special functions.
 For example, in combination with the ALM SUSPEND, EL-ZOOM or MULTI SELECT button, it is used to control the VTR (VCR).
- ⑯ **Multiscreen Monitor button (MULTI SCREEN)**
 Selects the multiscreen monitor connected to the MULTISCREEN OUT connector of the Video Multiplexer.
 The indicator lights up when the multiscreen monitor is selected.
Note: When REC OUT of the Video Multiplexer is used as connector for the Multiscreen 2 Monitor, this button alternately selects the Multiscreen or Multiscreen 2 Monitor.
 The indicator blinks when the Multiscreen 2 monitor is selected.
- ⑰ **Spot Monitor button (SPOT)**
 Selects the spot monitor connected to the SPOT OUT connector of the Video Multiplexer.
 The indicator lights up when the spot monitor is selected.
- ⑱ **Alarm Reset button (ALM RESET)**
 Cancels an active alarm.
 Pressing this button while the alarm function is activated will reset an alarm of the currently selected unit and return the system to the condition before the alarm function was activated.
 Pressing it in combination with the ALT button will reset all alarms.
- ⑲ **Sequence button (SEQUENCE)**
 Activates the sequence mode. In this mode, a series of camera pictures is displayed in succession on the monitor screen for the specified duration.
 The indicator lights up when this mode is selected.
- ⑳ **VTR (VCR)/Camera selection button (VTR/CAM)**
 Selects the camera picture or VTR (VCR) playback picture for display on the multiscreen monitor.
 The indicator lights up when the VTR (VCR) mode is selected.
Note: The above operation is not valid unless multiscreen monitor is selected using the MULTISCREEN button.
- ㉑ **Alarm Suspend button (ALM SUSPEND)**
 Pressing this button for more than two (2) seconds suspends activation of the alarm without changing the current alarm mode setup.
 The indicator lights up when the alarm suspension mode is selected.
- ㉒ **Electronic Zoom button (EL - ZOOM)**
 Zooms the picture presently displayed on the multiscreen monitor.
- ㉓ **Multiscreen Selection button (MULTI SELECT)**
 Selects the multiscreen pattern to be displayed on the multiscreen monitor while monitoring the camera picture or VTR (VCR) playback picture.
 Pressing this button repeatedly will switch the screen as follows:
 Camera Picture:
 4 → 7 → 9 → 10 → 13 → 16 → 4 screen segments
 VTR (VCR) Playback Picture:
 4 → 9 → 16 → 4 screen segments
- ㉔ **Function button (FUNCTION)**
 Displays the VTR (VCR) playback picture with the camera pictures on the multiscreen monitor.
 The indicator lights up when the combined mode is selected, and turns off when the playback picture is selected.
 During the setup, this button is used to select the next page.

②⑤ **Preset Position button (PRE - POSI)**

In combination with the numeric buttons and CAM (SET) button, moves the camera to the desired preset position.

②⑥ **Still button (STILL)**

Freezes the picture on the multiscreen monitor.
The indicator lights up when the still mode is selected.

②⑦ **Camera Set buttons (CAMERA SET ON/OFF)**

Open or close the camera setup menu on the monitor screen.

ON: Opens the selected camera setup menu on the monitor, if applicable.

The indicator lights up when the camera setup menu is displayed.

OFF: Closes the camera setup menu.

②⑧ **Set Up button (SET UP ON/OFF)**

Opens or closes the WJ-FS616/FS616C setup menu on the monitor.

INSTALLATIONS (For WJ-FS616/FS616C)

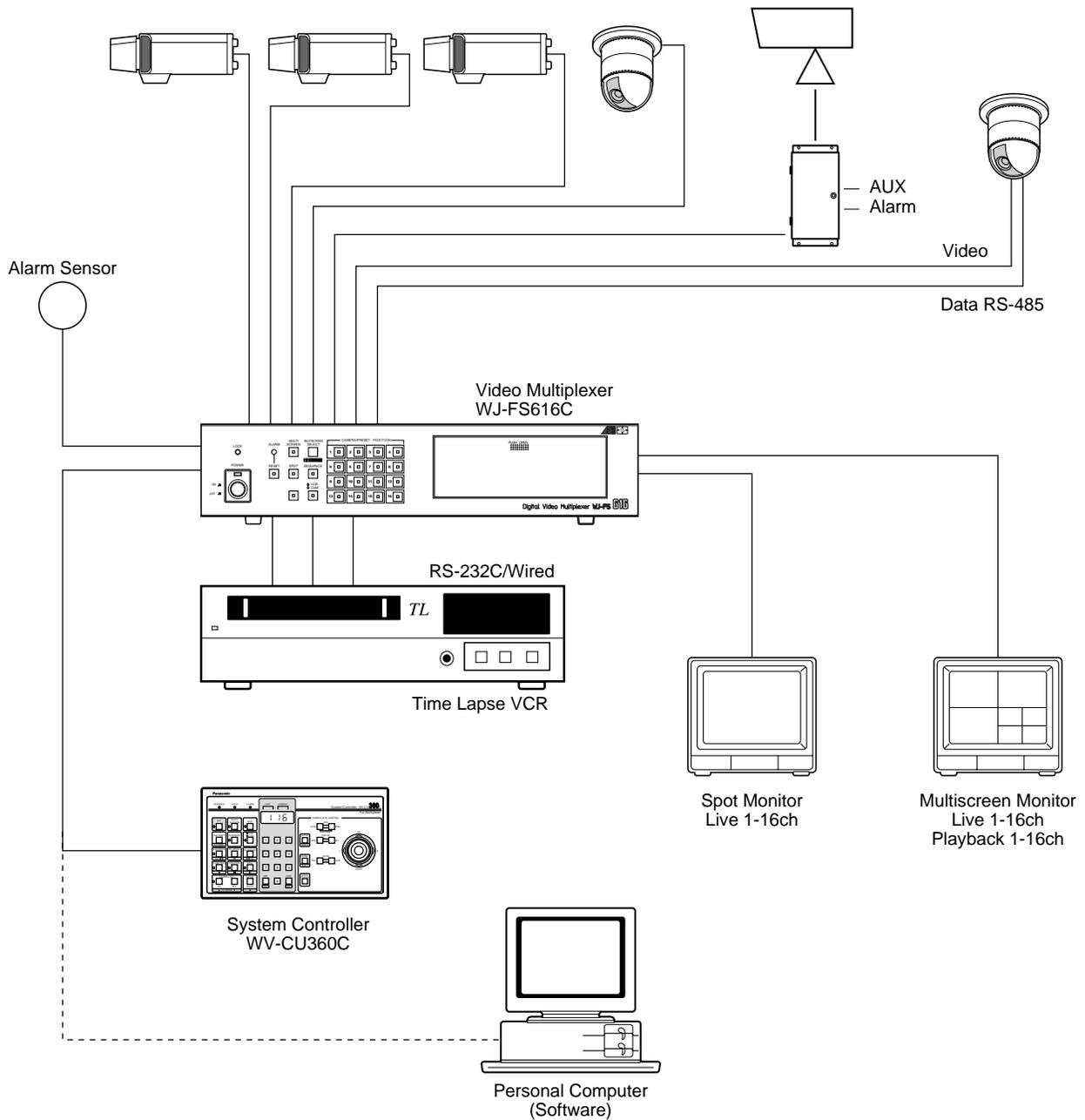
Warning!

The installation should be made by qualified service personnel or system installers according to the following instructions.

■ System Connections

● Connection Example

The connection example shows cameras and an alarm sensor connected to the Video Multiplexer. A time lapse VCR will record pictures for later playback. The spot monitor and multiscreen monitor will display live and playback pictures while these devices are being operated from System Controller WV-CU360C.

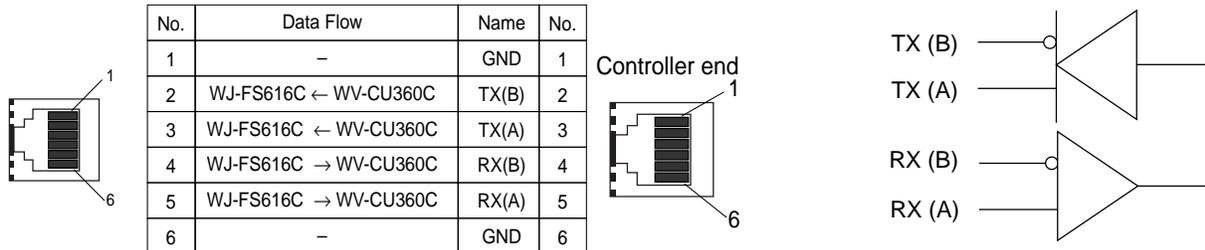


● DATA Port Connection (For Multiplexer)

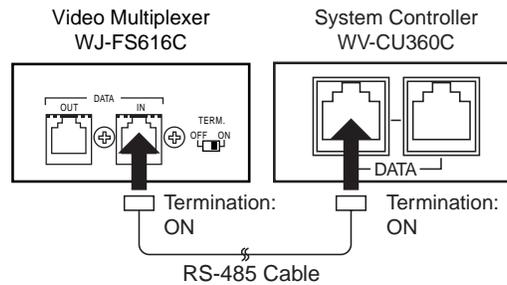
Data ports are connected with RS-485 cables among devices using the Camera Communication protocol as follows.

Note: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

• Internal Diagram

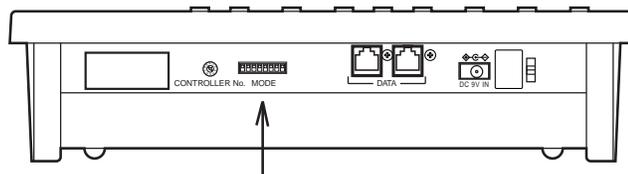


• Basic Connection



■ DIP Switch Setting (For Multiplexer)

An 8-bit DIP switch mounted on the rear panel specifies the communication mode, etc. The default position is marked with an asterisk *.

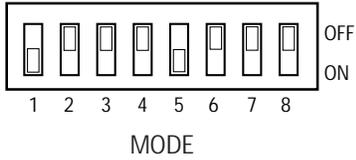


	Function	SW position	
		OFF	ON
Bit 1	Unit Version	See Unit Version*	
Bit 2	Unit Version	See Unit Version*	
Bit 3	Unit Version	See Unit Version*	
Bit 4	Reserved	Fixed to OFF*	Not used
Bit 5	Line termination	Off	On*
Bit 6	Operation mode	Operator*	Administrator
Bit 7	Reserved	Fixed to OFF*	Not used
Bit 8	Data transmission	Fixed to OFF*	Not used

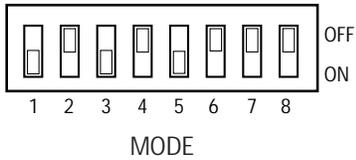
● Unit Version

The unit ID is defined by the upper 3 bits depending on the software version installed in the unit.

• WJ-FS616



• WJ-FS616C



■ Controller Number Setting

Set this switch always to 1 when using the System Controller in a system including a Multiplexer WJ-FS616/FS616C.



CONTROLLER No.

● Switch Setting Procedures

1. Remove the DC plug from the rear of the controller.
2. Set the MODE switch referring to the table.
 - The bit switches #1 to #3 should be set to positions that match the version of the Multiplexer installed in the system.
 - Bit 5 opens or terminates the communication chain. The switch should be set to OFF when the controller is located in an intermediate position of the chain.
 - Bit 6 specifies either Operator or Administrator as the operation mode. Set to Administrator when setting up the controller.
 - Bits 4, 7 and 8 are reserved.
3. Set the CONTROLLER NO. switch to 1.
4. Connect the DC plug to the controller.

SETUP PROCEDURES (For WJ-FS616/FS616C)

To display the setup menus for the WV-CU360C System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

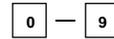
1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON (administrator) position.
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SEtUP]. The controller is ready to enter the setup mode.

When setup is completed, restore the switch to its original position.

1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF (operator) position.
2. Supply power to the controller.

■ Buttons and Controls used for Setup

The following buttons and joystick operations are used for setup.

 Numeric buttons: To select a parameter

 CAM/SET button: To execute modes and parameters
To enter a submenu

 UNIT/ESC button: To return to the previous menu

 Up: To select a setup menu

 Down: To select a setup menu

 or  Left: To decrease the parameter

 or  Right: To increase the parameter

■ Controller Setup

Set up the baud rate and parity check mode for the controller while observing the LED on the front panel.

Menu Selection	Setup Menus				Parameter Selection (default*)
	LED Display	Reading	Function		
	SEtUP	Setup	Initial Display	CAM <input type="checkbox"/> → SET	LED prompts you to enter password
	- - - - blinking	Administrator Password Prompt	Authorization		
Move Joystick UP and down to select 	SPEEd	Speed	Baud Rate (bps)	Press twice CAM <input type="checkbox"/> → SET	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	PrtY	Parity	Parity Check	← MON <input type="checkbox"/> ESC	(1) None* (2) Even

● Administrator Authorization

1. Press the **CAM/SET** button while [SEtUP] is displayed. The [- - - -] prompt appears.
2. Enter a password with the numeric buttons, then press the **CAM/SET** button. The default setting is [12345].
3. If the password entered is valid, [SPEEd] appears. If password entry failed, the menu returns to [SEtUP].

● Baud Rate

In this menu, the communication speed (bps: bits per second) is selected. The communication speed should match that of the WJ-FS616/FS616C.

1. Display [SPEEd] and press the **CAM/SET** button twice.
2. Select a parameter entering a bracket-enclosed number, e.g., (3), moving the joystick to right and left, or pressing the [+] and [-] buttons. The default setting is 9 600 bps.
 - (1) **2 400**: 2 400 bps
 - (2) **4 800**: 4 800 bps
 - (3) **9 600**: 9 600 bps
 - (4) **19 200**: 19 200 bps

Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).

3. Press the **CAM/SET** button to validate the selection.
4. Press the **ESC** button to go back to the previous menu.

● Parity

In this menu the parity check mode is selected.

1. Display [PrtY] and press the **CAM/SET** button twice.
2. Select a parameter with the joystick. The default setting is None.
 - n**: None
 - E**: Even parity
3. Press the **CAM/SET** button to validate the selection.

4. Press the **ESC** button to go back to the previous menu.

Note: The baud rate and parity check mode of both the WJ-FS616/FS616C and the controller must be the same, otherwise data communications will not function. To confirm the WJ-FS616/FS616C setup, open the COM PORT SETUP window to check the DATA port column parameters. Refer to Multiplexer Setup for operation.

	RS-232C	DATA	RS-485
DELAY	OFF	OFF	OFF
BAUD RATE	9600	9600	19200
WAIT TIME	OFF	OFF	OFF
DATA BIT	7	8	8
PARITY	ODD	NONE	NONE
STOP BIT	1	1	1
XON/XOFF	-	OFF	OFF
FULL/HALF	-	-	FULL

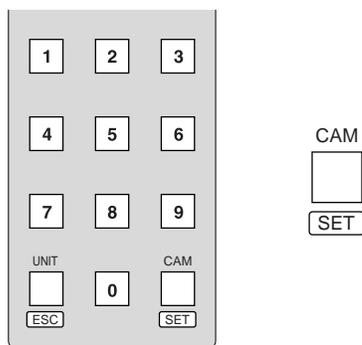
OPERATING PROCEDURES (For WJ-FS616/FS616C System)

Note: For common operations to the controller and the WJ-FS616/FS616C, please refer to the manual included with the WJ-FS616/FS616C. The following pages describe only operations different from the WJ-FS616/FS616C.

■ Camera Selection

One of the cameras connected to the system unit is selected.

1. Enter a camera number using the numeric buttons.
The number appears on the LED display.
2. Press the **CAM/SET** button.



Note: [-] appears in the camera section of the LED display when an alarm is activated, when the multi-screen is displayed, or when sequence mode is run.

The following functions of the camera are controlled.

- Pan/tilt
- Focus
- Zoom
- Iris
- Defroster ON/OFF (camera housing)
- Wiper ON/OFF (camera housing)
- Preset Position (Combination Camera)
- Home position (Combination Camera)
- Auto pan (Combination Camera)

The following additional functions can be controlled when using the WV-CS854 or later camera models.

- Switching between color and B/W picture (Combination Camera)
- Patrol Learn function (Combination Camera)
- Camera functions (Combination Camera)

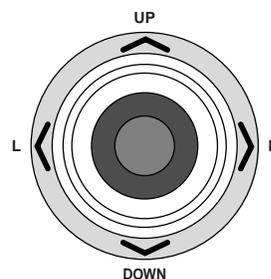
■ Camera Control

Cameras and their peripherals are controlled from the WV-CU360C as follows. Some of the descriptions may not be applicable if they refer to devices not equipped in your system.

● Pan/Tilt Control

Proceed as follows to control an ordinary camera mounted on a pan/tilt head or a combination camera in manual or automatic panning mode.

1. Move the pan/tilt head in the desired direction with the joystick controller.



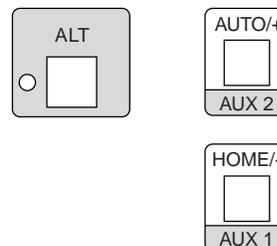
2. Press the **AUTO/+** button to activate a preset auto panning.

● AUX Control

This allows you to control an auxiliary device such as a buzzer or lamp connected to the Receiver or combination camera.

● Auxiliary 1/2

1. Press the **ALT** button to turn on the **ALT** indicator .



2. Press the **AUX 1** or **AUX 2** button to operate or cancel the auxiliary function for the selected camera.

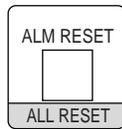
Note: Auxiliary control may be ignored while zooming, focusing or panning/tilting is in operation.

■ Alarm Operation

When the WV-CU360C receives an alarm signal from the WJ-FS616/FS616C, the alarm indicator blinks. The alarm indicator changes from blinking to steady light when the alarm is automatically reset. The camera number appears in the camera section of the LED display.

● Alarm Reset

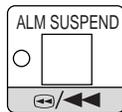
1. Press the **ALM RESET** button while the **ALT** indicator is not lit. An activated alarm is reset and the alarm indicator on the controller goes off.



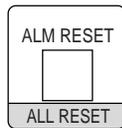
2. To reset all alarms issued by the multiplexers connected in a daisy chain, press the **ALT** button, then press the **ALM RESET** buttons.

● Alarm Suspension

1. Press the **ALM SUSPEND** button for more than 2 seconds to suspend the alarm. The **ALM SUSPEND** indicator lights up.



2. Press the **ALM RESET** button to reset alarm suspension. The **ALM SUSPEND** indicator goes off.



■ VTR (VCR) Control

You can operate a VTR (VCR) connected to the Video Multiplexer from the controller using the buttons listed below with the ALT indicator lit.

Function	Logo	Note
Rewind		
Pause		
Fast Forward		
Reverse Play		
Stop		
Playback		
T/L (time-lapse) Mode Down		e.g., change from 72H mode to 24H mode
Up		e.g., change from 24H mode to 72H mode
Recording		

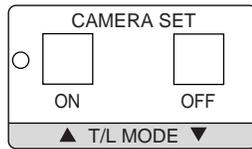
■ Camera Setup

The cameras connected to the WJ-FS616/FS616C are set up from the controller.

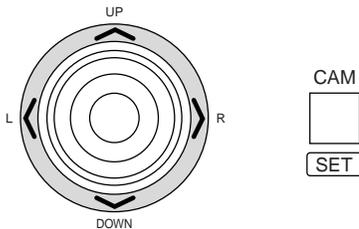
Note: Make sure that the multiplexer and the controller are set to identical communication parameters.

● General Setup

1. Select a camera pressing the numeric buttons, then press the **CAM/SET** button.
2. Press the **CAMERA SET ON** button. The ON indicator is lit while the CAMERA SET UP MENU is displayed on the monitor.



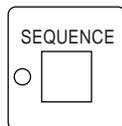
3. Select a setup item by moving the joystick up and down. Select a parameter by moving the joystick to the right or left, then press the **CAM/SET** button to validate the selection or to enter a submenu.



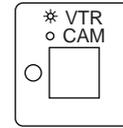
4. Press the **UNIT/ESC** button to execute the selection and to return the menu to a higher layer.



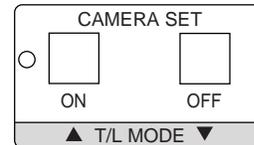
5. Press the **SEQUENCE** button to enter the SPECIAL menu.



6. Press the **VTR/CAM** button to reset all functions to the defaults, or press the **SEQUENCE** button to reset a selected function.



7. Press the **CAMERA SET OFF** button to close the camera setup menu.



● Shortcut for Preset Position Setup

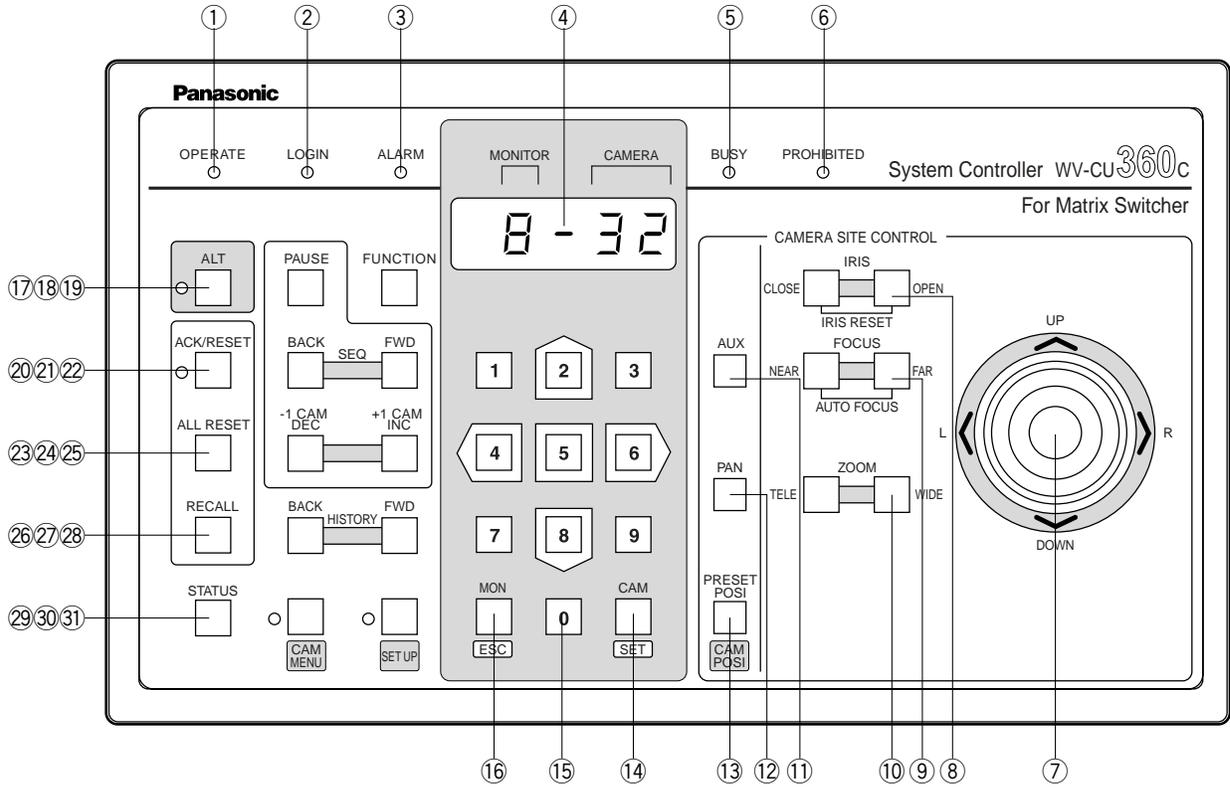
A shortcut can be created for setting a camera position without going through the whole presetting process. Shortcuts are applicable only to cameras having the presetting function.

1. Open the PRESET menu of the camera.
2. Press the **ALT** button while the position setting menu is displayed.
3. Move the camera with the joystick to the position you wish to preset.
4. Adjust the picture with the **IRIS**, **FOCUS** and **ZOOM** buttons.
5. Press the **ALT** button again. The preset conditions are registered, and the joystick function reverts to moving the cursor.

For WJ-SX350 Matrix Switcher System

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for WJ-SX350)



- ① **Operate indicator (OPERATE)**
Is lit while power is supplied to the System Controller.
- ② **Log-in indicator (LOGIN)**
Lights up when login has been successfully finished.
- ③ **Alarm indicator (ALARM)**
Blinks when an alarm condition exists.
It changes to steady light when the alarm is reset automatically.
To turn off the indicator, press the ACK/RESET or ALL RESET button.
- ④ **LED Display (MONITOR CAMERA)**
Displays the number of monitors and cameras currently controlled.

- ⑤ **Busy indicator (BUSY)**
Blinks or lights up when you attempt to control a certain monitor (or a camera) that is already used by a higher priority operator, or when the higher priority operator chooses the camera or monitor you are currently operating.

Blinking: Monitor Busy
Steady light: Camera Busy

- ⑥ **Prohibited indicator (PROHIBITED)**
Lights up for two seconds when an invalid operator number or password is used to log in. The indicator also blinks when an attempt is made to access a function that is prohibited for the given operator level.

⑦ **Joystick Controller (UP/DOWN/L/R)**

Used to operate the Pan/Tilt Head manually, or to move the cursor to the desired position on the SETUP MENU of the Matrix Switcher.

UP:	Upward
DOWN:	Downward
L:	Left
R:	Right

⑧ **Iris buttons (IRIS CLOSE/OPEN)**

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

When these buttons are pressed at the same time, the lens iris is reset to the factory setting.

⑨ **Focus buttons (FOCUS NEAR/FAR)**

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

When these buttons are pressed at the same time, the lens focus is set automatically when the specified camera, such as the WV-CS854, is used.

⑩ **Zoom buttons (ZOOM TELE/WIDE)**

Zoom the image in or out if the camera is equipped with the specified lens.

⑪ **Auxiliary button (AUX)**

In combination with the number buttons 1 to 4, controls the Auxiliary switches for the Receiver, Wiper and Defroster.

Press the numeric button, then press this button to turn the Auxiliary switches for the Wiper or Defroster On or Off.

1:	Auxiliary Switch 1
2:	Auxiliary Switch 2
3:	Wiper
4:	Defroster

⑫ **Panning button (PAN)**

In combination with the numeric button 1 or 2, is used to control the panning mode of the Pan/Tilt Head.

Press the numeric button, then press this button to turn the Panning mode On and Off.

1:	Auto Panning Mode
2:	Random Panning Mode

⑬ **Preset Position button (PRESET POSI/CAM POSI)**

In combination with the numeric buttons, moves the camera to the desired preset position. Also selects a camera position by a serial number assigned independently of the camera number. Specify a number, then press ALT and finally this button.

⑭ **Camera/Set button (CAM (SET))**

CAM: Used for camera selection. To select a camera, enter the desired camera number with the numeric buttons, and then press this button.

SET: Executes the currently highlighted setting in the setup menu of the Matrix Switcher and opens a submenu.

⑮ **Numeric buttons (0 - 9)**

These buttons are used for numerical input such as camera and monitor selection, sequence and preset position, etc.

Buttons 2, 4, 6 and 8 are also used to move the cursor to the desired position on the Camera's Set Up Menu.

⑯ **Monitor/Escape button (MON (ESC))**

MON: Used for monitor selection. To select a monitor, enter the monitor number with the numeric buttons, and then press this button.

ESC: Escapes from or executes the currently highlighted selection in the setup menu of the matrix switcher.

⑰ **Alternate button (ALT)**

Alternates the function of dual-function buttons between the normal and the alternate function. It also enables the CAM MENU button and SET UP button to display the assigned menu or setup table on the selected monitor.

The indicator is lit while the function mode is selected.

⑱ **Sequence Pause button (PAUSE)**

Pauses a sequence that is being run on the selected monitor.

⑲ **Function button (FUNCTION)**

Pressing this button in combination with another operation button activates a specific function.

⑳ **Alarm Acknowledgment and Reset button (ACK/RESET)**

Cancels an activated alarm. To cancel the alarm, the monitor must first be selected.

Press this button once to acknowledge the activated alarm (the indicator blinks rapidly), then press it again to reset the alarm.

⑳ ㉑ **Backward/Forward Sequence button (SEQ BACK/FWD)**

BACK: In combination with the numeric buttons, runs a Tour or Group sequence backward on the selected monitor.

It is also used to continue a sequence backward, that was previously paused on that monitor by pressing the PAUSE button.

FWD: In combination with the numeric buttons, runs a Tour or Group sequence forward on the selected monitor.

It is also used to continue a sequence forward, that was previously paused on that monitor by pressing the PAUSE button.

㉓ **All Alarms Reset button (ALL RESET)**

Cancels all active alarms at a time.

To reset all alarms, first select the alarmed monitor (Monitor 1 for Alarm Mode 1, any of four monitors for Alarm Mode 2), and then press this button.

Note: To cancel all alarms without first selecting the monitor, press this button in combination with the ALT button.

㉔ ㉕ **Decrement/Increment button (-1CAM DEC, +1CAM INC)**

-1CAM DEC: Moves a sequence one step backward from the step that was previously paused on the selected monitor by pressing the PAUSE button.

Also, when the selected monitor is in the spot mode, pressing this button will replace the currently selected camera with the next lower number camera.

+1CAM INC: Moves a sequence one step forward from the step that was previously paused on a monitor by pressing the PAUSE button.

Also, when the selected monitor is in the spot mode, pressing this button will replace the currently selected camera with the next higher number camera.

㉖ **Alarm Recall button (RECALL)**

Recalls the Alarm Log (record of activated alarms).

Select the desired monitor to display the alarm records, then press this button to toggle the display of alarm records On and Off on the selected monitor.

㉗ ㉘ **Backward/Forward History button (HISTORY BACK/FWD)**

BACK: Displays the previous camera picture on the selected monitor. Each operation of this button backs up the camera picture by one.

In the SETUP MENU, selects the previous page or step of the setup tables.

FWD: Moves the camera picture forward on the selected monitor after the HISTORY BACK button has been used.

In the SETUP MENU, selects the next page or step of the setup tables.

㉙ **Status button (STATUS)**

Toggles the display of the Camera Site Status Table on the selected monitor On and Off.

Note: To toggle the display of the System Status Table on the selected monitor On and Off, press this button in combination with the ALT button.

㉚ **Camera Menu button (CAM MENU)**

In combination with the ALT button, toggles the display of the selected Camera's Setup Menu On and Off.

The indicator lights up when the camera setup mode is selected.

㉛ **Set Up button (SET UP)**

In combination with the ALT button, toggles the display of the SETUP MENU of the Matrix Switcher On and Off.

The indicator lights up when the setup mode is selected.

INSTALLATIONS (For WJ-SX350)

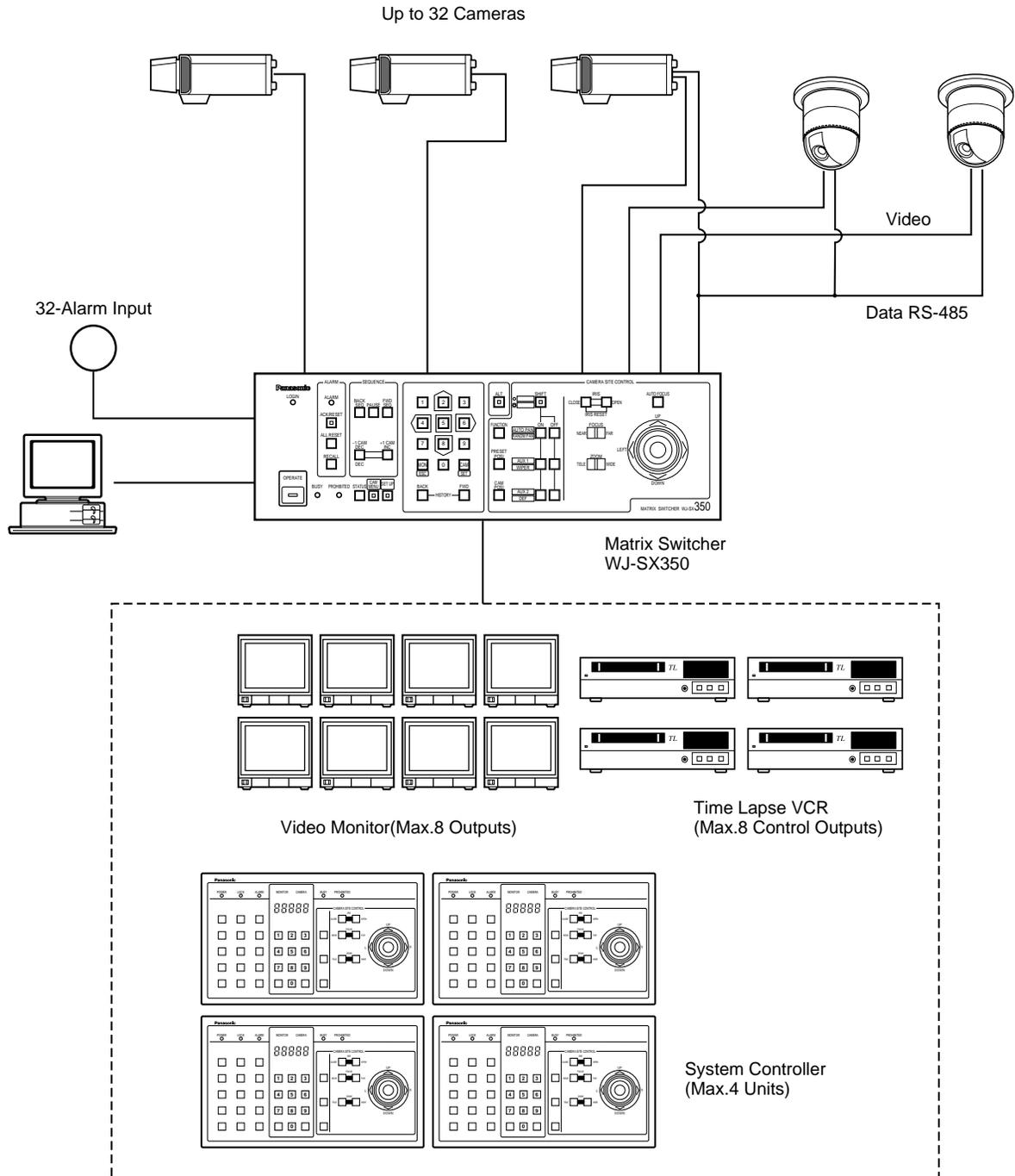
CAUTION

The installation should be made by qualified service personnel or system installers according to the following instructions.

■ **System Connections**

● **Connection Example**

The example below shows a typical system connection.

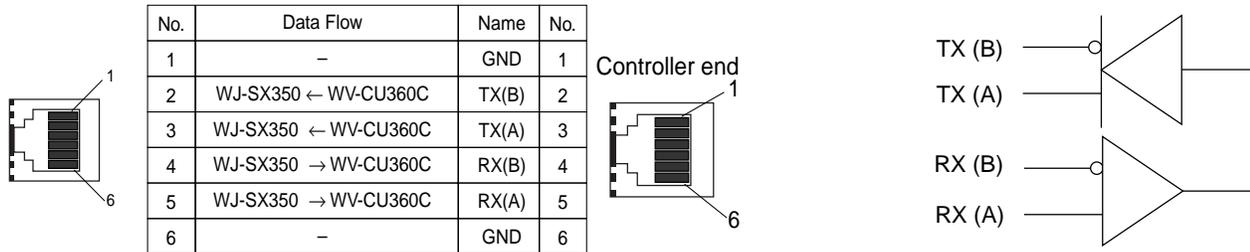


● DATA Port Connection (For WJ-SX350)

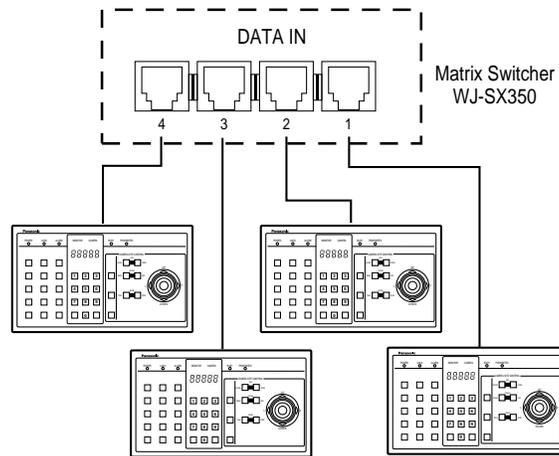
Data ports are connected with RS-485 cables among devices as follows.

Note: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

• Internal Diagram

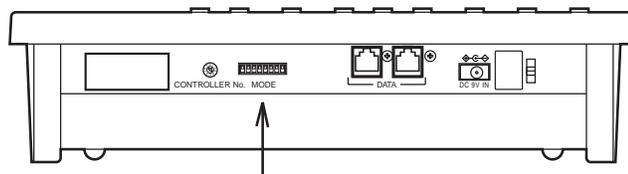


• Basic Connection



■ DIP Switch Setting (For WJ-SX350)

An 8-bit DIP switch mounted on the rear panel specifies the communication mode, etc. The default position is marked with an asterisk *.



	Function	SW position	
		OFF	ON
Bit 1	System Unit Version	*	See the next page
Bit 2	System Unit Version	*	See the next page
Bit 3	System Unit Version	*	See the next page
Bit 4	Reserved	*	Not used
Bit 5	Line termination	Off	On*
Bit 6	Operation mode	Operator*	Administrator
Bit 7	Baud Rate Selection	Auto-selection*	Set up from CU360
Bit 8	Repeat Transmissions	1 time*	3 times

■ Controller Number Setting

Set this switch always to 1 when using the System Controller with the WJ-SX350.

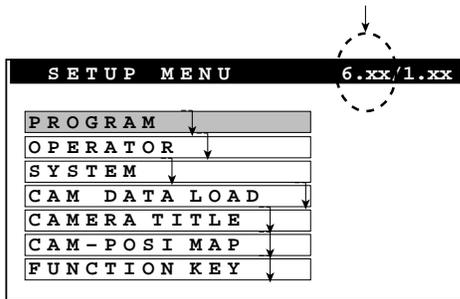


CONTROLLER No.

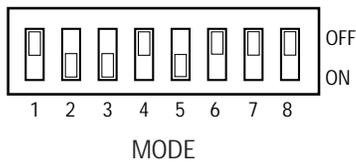
● Switch Setting Procedures

Set the MODE DIP switch and CONTROLLER NO. switch as follows.

1. Remove the DC plug from the rear of the controller.
2. Set the MODE switches.
 - Bit 1 through 3 should match the version of the WJ-SX350 installed in your system. Open the SETUP MENU of the WJ-SX350 and check the version shown in the upper right corner of the menu.

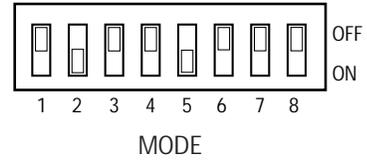


For version 6.00 or later, set the switches as shown below.



- Bit 1 should be set to OFF*.
- Bit 2 should be set to ON.
- Bit 3 should be set to ON.

For version 1.xx, set the switches as shown below.



- Bit 1 should be set to OFF*.
- Bit 2 should be set to ON.
- Bit 3 should be set to OFF*.

Bits 4 through 8 are not version related.

- Bit 4 should be set to OFF*.
- Bit 5 should be set to ON*.
- Bit 6 should be set to OFF* (Operator) normally, or ON (Administrator) when setting up the controller.
- Bit 7 should be set to OFF*. Baud rate selection is automatic.
- Bit 8 should be set to OFF* normally.

3. Connect the DC plug to the controller.

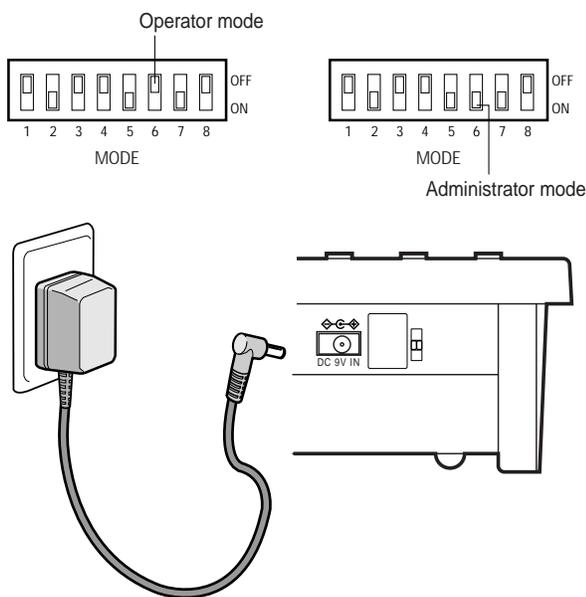
CONTROLLER SETUP PROCEDURES (For WJ-SX350)

To display the setup menus for the WV-CU360C System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON (administrator) position.
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SEtUP]. The controller is ready to enter the setup mode.

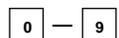


When setup is completed, restore the switch to its original position.

1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF (operator) position.
2. Supply power to the controller.

■ Buttons and Controls used for Setup

The following buttons and joystick operations are used for setup.

 Numeric buttons: To select a parameter

 CAM/SET button: To execute modes and parameters
To enter a submenu

 MON/ESC button: To return to the previous menu

 Up: To select a setup menu

 Down: To select a setup menu

 Left: To decrease the parameter

 Right: To increase the parameter

■ Setup Procedures

Set up the baud rate and parity check mode for the controller while observing the LED on the front panel.

Menu Selection	Setup Menus				Parameter Selection (default*)
	LED Display	Reading	Function		
	SEtUP	Setup	Initial Display	CAM <input type="checkbox"/> → SET	LED prompts you to enter password
	- - - - blinking	Administrator Password Prompt	Authorization		
Move Joystick UP and down to select 	SPEEd	Speed	Baud Rate (bps)	Press twice CAM <input type="checkbox"/> → SET	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	PrtY	Parity	Parity Check	<input type="checkbox"/> ← MON <input type="checkbox"/> ESC	(1) None* (2) Even

● Administrator Authorization

1. Press the **CAM/SET** button while [SEtUP] is displayed. The [- - - -] prompt appears.
2. Enter a password using the numeric buttons, then press the **CAM/SET** button. The default setting is [12345].
3. If the password entered is valid, [SPEEd] appears. If password entry failed, the menu returns to [SEtUP].

● Baud Rate

When bit 7 of the MODE switch is in the ON position, you need to select the communication speed manually to match that of the WJ-SX350.

1. Display [SPEEd], and press the **CAM/SET** button twice.
2. Select a parameter entering a bracket-enclosed number, e.g., (3), or moving the joystick. The default setting is 9 600 bps.

- (1) 2 400: 2 400 bps
- (2) 4 800: 4 800 bps
- (3) 9 600: 9 600 bps *
- (4) 19 200: 19 200 bps

Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).

3. Press the **CAM/SET** button to validate the selection.
4. Press the **MON/ESC** button to return to the [SPEEd] menu.

● Parity

The parity check mode is selected in this menu.

1. Display [PrtY] and press the **CAM/SET** button twice.
2. Select a parameter with the joystick. The default setting is None.
n: None
E: Even parity
3. Press the **CAM/SET** button to confirm the selection.
4. Press the **MON/ESC** button to return to the [SPEEd] menu.

Note: The baud rate and parity check mode of the WJ-SX350 and the controller must be the same, otherwise data communications will not function.

OPERATING PROCEDURES (For WJ-SX350)

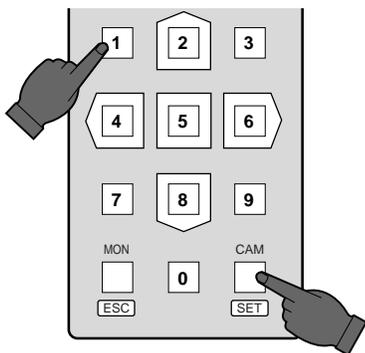
This section describes only some important operations such as login, logout, and different operations from the front panel of the WJ-SX350.

Please refer to the manual included with the WJ-SX350 for further information on camera selection, monitor selection and so forth.

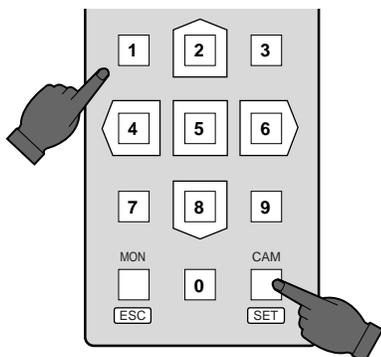
■ Login & Logout

● Login

1. Type your registered operator number (a maximum of 15 digits) using the numeric buttons, then press the **CAM/SET** button. If login has been successful, the **LOGIN** indicator lights up. If it has failed, another attempt can be made when the **PROHIBITED** indicator goes off after 2 seconds.



2. Type your registered password (a maximum of 5 digits) using the numeric buttons, then press the **CAM/SET** button. If password entry has been successful, the **LOGIN** indicator changes from blinking to steady light. If it has failed, another attempt can be made when the **PROHIBITED** indicator goes off after 2 seconds.



● Logout

1. Type 00 using the numeric button, then press the **FUNCTION** button. The **LOGIN** indicator turns off.

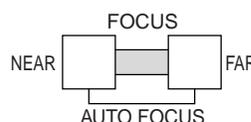
FUNCTION



■ Lens Control (Auto Focus Operation)

The following function requires the use of a camera with auto focus capability, such as the Panasonic WV-CS854.

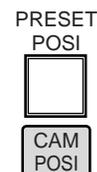
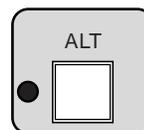
1. Select the desired monitor and camera.
2. Press the **FOCUS NEAR** and **FAR** buttons simultaneously to automatically adjust the lens focus on the selected camera.



■ Pan/Tilt Control (Camera Position Operation)

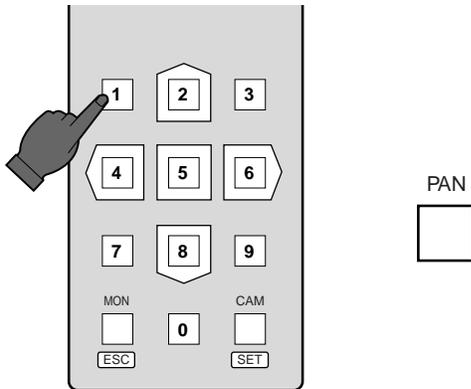
The following function requires the use of a camera with preset panning capability, such as the Panasonic WV-CS854.

1. Select the desired monitor.
2. Select a registered camera position number using the numeric buttons.
3. Press the **ALT** button (indicator light on), then press the **PRESET POSI** button to activate the camera to move to the preset position.



■ Pan/Tilt Control (Auto/Random Panning)

1. Select the desired monitor and camera.
2. Type **1** using the numeric button, then press the **PAN** button to toggle the Auto Panning function on the selected camera On and Off.
3. Type **2** using the numeric button, then press the **PAN** button to toggle the Random Panning function on the selected camera On and Off.

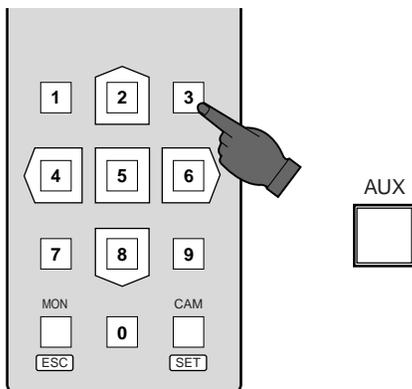


Note: Moving the Joystick Control will stop Auto or Random panning.

■ Camera Housing Control

● Wiper control

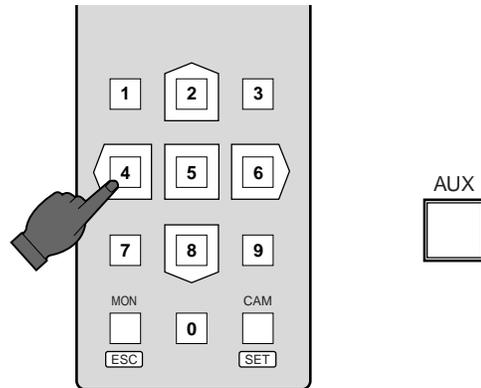
1. Select the desired monitor and camera.
2. Type **3** using the numeric button, then press the **AUX** button to toggle the power of the Wiper on the selected camera On and Off.



Note: To prevent premature wearing of the wiper blades, be sure to turn off the wiper when it is not needed or before selecting another camera for viewing.

● Defroster Control

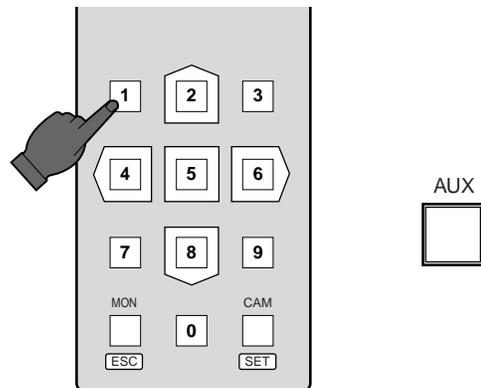
1. Select the desired monitor and camera.
2. Type **4** using the numeric button, then press the **AUX** button to toggle the power of the Defroster on the selected camera On and Off.



● Auxiliary Control

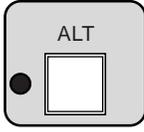
The following function is available only when the WV-RC100 or WV-RC150 Receiver is included in the system.

1. Select the desired monitor and camera.
2. Type **1** using the numeric button, then press the **AUX** button to toggle the user Auxiliary Switch 1 of the Receiver On and Off.
3. Type **2** using the numeric button, then press the **AUX** button to toggle the user Auxiliary Switch 2 of the Receiver On and Off.



● System Status Display

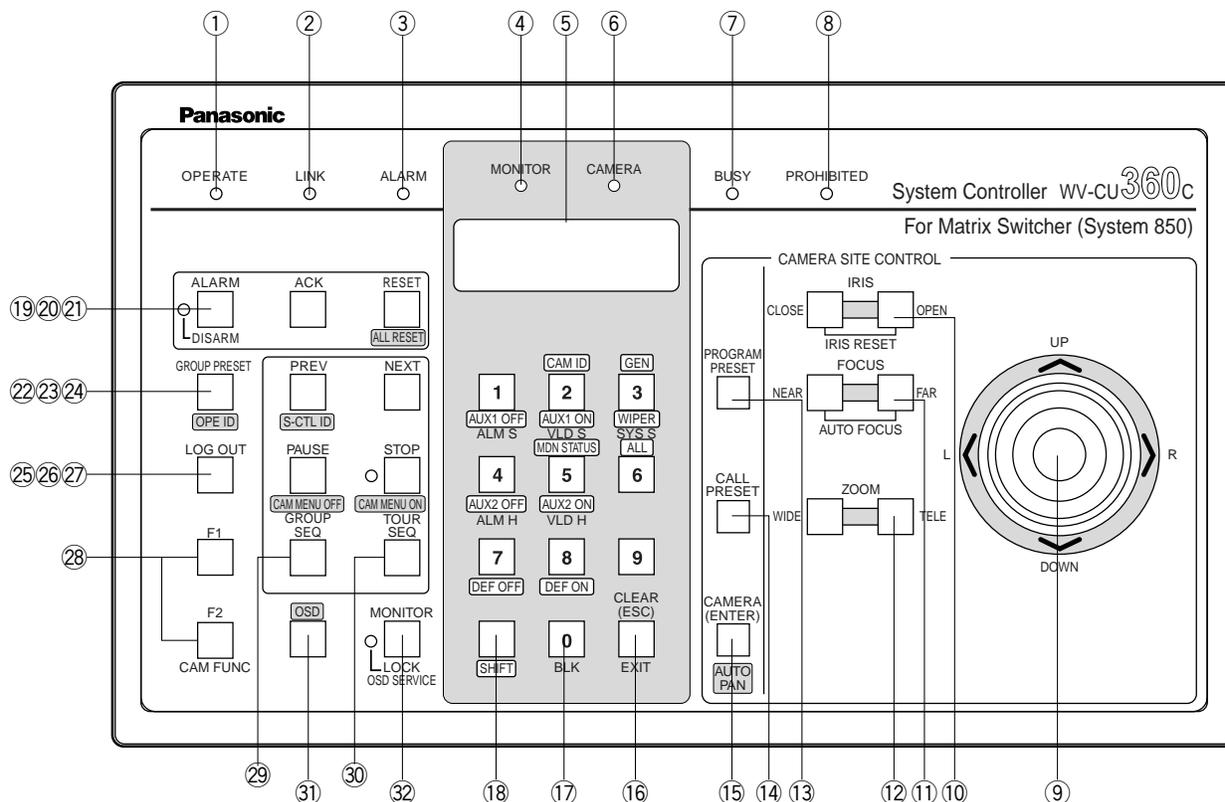
1. Select a monitor to display the System Status Table.
2. Press the **ALT** button (indicator light on), then press the **STATUS** button to toggle the display of the System Status Table on the selected monitor On and Off.



**For System 850
WJ-SX850 Matrix
Switcher System**

MAJOR OPERATING CONTROLS & THEIR FUNCTIONS

■ Front View (Template for System 850 Matrix Switcher)



① Operate indicator (OPERATE)

Is lit while power is supplied to the System Controller.

② Link indicator (LINK)

Lights up when communication is established with the Main CPU.

③ Alarm indicator (ALARM)

Lights up when an alarm condition exists. Select the alarm number using the numeric buttons, then press the ALARM button and the RESET button to turn off the indicator.

④ Monitor indicator (MONITOR)

Lights up when the monitor number is displayed on the LED display.

⑤ LED Display

Displays the number of monitors and cameras currently controlled. It also displays numeric input, error status, etc.

⑥ Camera indicator (CAMERA)

Lights up when the camera number is displayed on the LED display.

⑦ Busy indicator (BUSY)

Lights up when you attempt to control a monitor or camera that is already used by a higher priority operator, or 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.

⑧ Prohibited indicator (PROHIBITED)

This indicator lights up for 3 seconds when an attempt is made to gain access to a function that is prohibited by the partition.

⑨ **Joystick Controller (UP/DOWN/L/R)**

Used to manually operate the Pan/Tilt Head, or move the cursor in the camera menu on the active monitor screen.

UP: Upward
DOWN: Downward
L: Left
R: Right

⑩ **Iris buttons (IRIS, CLOSE/OPEN)**

Closes or opens the lens iris of cameras equipped with the specified lens.

When these buttons are pressed at the same time, the lens iris is reset to the factory default setting.

⑪ **Focus buttons (FOCUS, NEAR/FAR)**

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

When these buttons are pressed at the same time, the lens focus is set automatically if the specified camera with the auto focus feature is equipped.

⑫ **Zoom buttons (ZOOM, WIDE/TELE)**

Zoom the image in or out if the camera is equipped with the specified lens.

⑬ **Programme Preset button (PROGRAM PRESET)**

In combination with the numeric buttons and CAMERA (ENTER) button, saves a preset position of the camera in a system equipped with the specified cameras.

To save a preset position, move the camera to the position to be preset and select a preset number by pressing the numeric buttons. Hold down the PROGRAM PRESET button, then press the CAMERA (ENTER) button.

⑭ **Call Preset button (CALL PRESET)**

In combination with the numeric buttons, moves the pan/tilt head of the selected camera to a preset position in a system equipped with the specified cameras.

⑮ **Camera/Enter button [CAMERA (ENTER)]**

CAMERA: Used for camera selection. Select a camera by pressing the corresponding numeric buttons, followed by the CAMERA (ENTER) button.

ENTER: In combination with the numeric buttons, enter numeric input, such as operator ID and password.

It is also used to execute the currently highlighted selection and enter a submenu of the camera menu.

Pressing CAMERA (ENTER) while holding down the SHIFT button will activate the auto panning function of the selected camera (AUTO PAN).

⑯ **Clear/Escape button [CLEAR (ESC)]**

Clear: Clears numeric input from the LED display.

Escape: Escapes from the currently highlighted selection and return to the previous page of the camera menu.

This button is also used to exit from alarm selection mode to normal operation mode.

⑰ **Numeric buttons (0 - 9)**

Used for numeric input into the system such as the camera and monitor number, sequence number, preset position, etc.

Pressing the buttons shown below while holding down the SHIFT button will select special functions.

- 1: Turns off the user auxiliary 1 switch of the receiver. (AUX1 OFF)
- 2: Turn on the user auxiliary 1 switch of the receiver. (AUX1 ON)
- 3: Turns on the housing wiper of the camera until these buttons are released. (WIPER)
- 4: Turns off the user auxiliary 2 switch of the receiver. (AUX2 OFF)
- 5: Turns on the user auxiliary 2 switch of the receiver. (AUX2 ON)
- 7: Turns off the housing defroster of the camera. (DEF OFF)
- 8: Turns on the housing defroster of the camera. (DEF ON)

⑱ **Shift button (SHIFT)**

Pressing this button in combination with buttons to which a special function has been assigned will activate these functions.

⑲ **Alarm button (ALARM), Disarm indicator (DISARM)**

In combination with the Numeric buttons, selects an alarm. To select an activated alarm, press the numeric buttons, followed by the ALARM button.

Pressing this button repeatedly enables or disables the cameras and monitor assigned to perform the alarm activities.

The DISARM indicator next to the button is lit while alarm activities are disabled.

⑳ **Alarm Acknowledge button (ACK)**

Acknowledge an activated alarm. Select the alarm by pressing the numeric buttons, followed by the ALARM button. Select the desired alarm action number by pressing the numeric buttons, then press the ACK button. The ACK indicator will light.

After acknowledging the alarm, press the RESET button to reset the alarm. The ACK indicator will go off.

⑳ **Alarm Reset button (RESET)**

Cancels an activated alarm.
Press this button to reset an alarm activated in the currently active unit.
Pressing this button while holding down the SHIFT button cancels all currently activated alarms at a time (ALL RESET).
Pressing RESET in the camera menu will reset the parameter of a selected item or open the Special camera menu when the cursor is positioned on SPECIAL in the menu. Pressing it while holding down the SHIFT button will restore all factory default settings.

㉑ **Group Preset button (GROUP PRESET)**

In combination with the numeric buttons, activates a previously programmed Group Preset function.
Pressing this button while holding down the SHIFT button will display the Operator ID number on the LED Display for about 3 seconds (OPE ID).

㉒ **Previous button (PREV)**

Moves a Tour Sequence one step backward from the step that was previously paused on the active monitor by pressing the PAUSE button.
This button is also used to select a camera. Pressing PREV while holding down the CAMERA (ENTER) button will replace the currently selected camera with the next lower camera number, if the active monitor is in Spot mode.
Similarly pressing PREV while holding down the MONITOR button will select the next lower monitor number.
When selecting alarms, pressing PREV while holding down the ALARM button will select the previous alarm.
Pressing this button while holding down the SHIFT button will display the Controller ID number on the LED Display for about 3 seconds (S-CTL ID).

㉓ **Next button (NEXT)**

Moves a Tour Sequence one step forward from the step that was previously paused on the active monitor by pressing the PAUSE button.
The button is also used to select a camera. Pressing NEXT while holding down the CAMERA (ENTER) button will replace the currently selected camera with the next higher camera number, if the active monitor is in Spot mode.
Similarly pressing NEXT while holding down the MONITOR button will select the next higher monitor number.
When selecting alarms, pressing NEXT while holding down the ALARM button will select the next alarm.

㉔ **Log Out button (LOG OUT)**

In combination with the CAMERA (ENTER) button, logs out from the system.
To prevent a log-out error, press CAMERA (ENTER) while holding down the LOG OUT button.

㉕ **Pause button (PAUSE)**

Pauses a Tour or Group Sequence that is being run on the active monitor.
Pressing PAUSE while holding down the SHIFT button will close the camera menu on the active monitor. The STOP indicator will go off. (CAM MENU OFF)

㉖ **Stop button (STOP)**

Ends a Tour Sequence that is being run on the active monitor.
To end a Group Sequence, select one of the monitors that displays the selected sequence, then press this button.
Pressing STOP while holding down the SHIFT button will open the camera menu on the active monitor. The STOP indicator will light. (CAM MENU ON)

㉗ **Function buttons (F1, F2)**

Provide access to camera attributes and operating functions.

F1: Reserved for future use.

F2: Pressing this button will select the mode for controlling selected camera functions (CAM FUNC).

㉘ **Group Sequence button (GROUP SEQ)**

In combination with the numeric buttons, runs a Group Sequence on the assigned monitors.
Pressing GROUP SEQ will restart a forward sequence from the next step that was previously paused by pressing the PAUSE button.

㉙ **Tour Sequence button (TOUR SEQ)**

In combination with the numeric buttons, runs a Tour Sequence on the active monitor.
Pressing TOUR SEQ will restart a forward sequence from the next step that was previously paused by pressing the PAUSE button.

㉚ **OSD (On Screen Display) button (OSD)**

Displays or hide some of the information on the screen of the selected monitor. Press the numeric buttons shown below, then press the OSD button.

- 1: Clock Display (T&D)
- 2: Camera Title Display (CAM ID)
- 3: General Status Display (GEN)
- 5: Monitor Status Display (MON STATUS)
- 6: All Displays except clock (ALL)

③ **Monitor/Monitor Lock/OSD service button**

(MONITOR/OSD SERVICE), Lock indicator (LOCK)

Selects a monitor by entering a monitor number with the numeric buttons, and then pressing this button.

To lock or unlock the currently selected monitor, press this button while holding down the SHIFT button. While the LOCK indicator is lit, other operators will be barred from accessing the monitor.

To access OSD service, press the numeric buttons shown below, then press this button.

- 1:** ALMS, Alarm status
- 2:** VLDS, Video loss detection status
- 3:** SYS S, System status
- 4:** ALM H, Alarm history
- 5:** VLDH, Video loss detection history

INSTALLATIONS (For System 850)

CAUTION

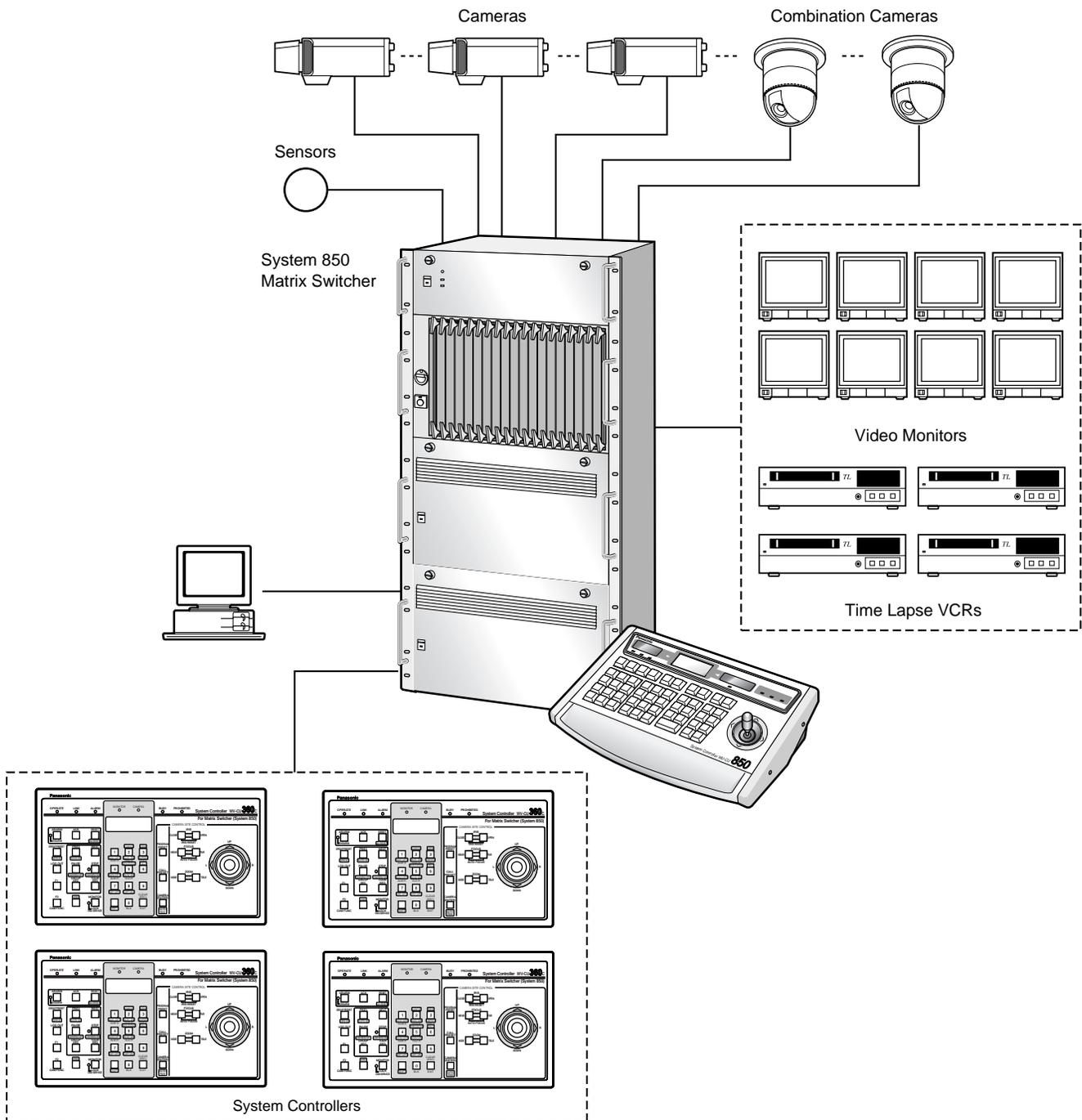
The installation should be made by qualified service personnel or system installers according to the following instructions.

■ System Connections

● Connection Example

The connection example shows a large-scale system having a number of cameras, alarm sensors, monitors and so forth connected to the System 850 Matrix Switcher.

The System Controller WV-CU360C provides major operating functions to control the system.

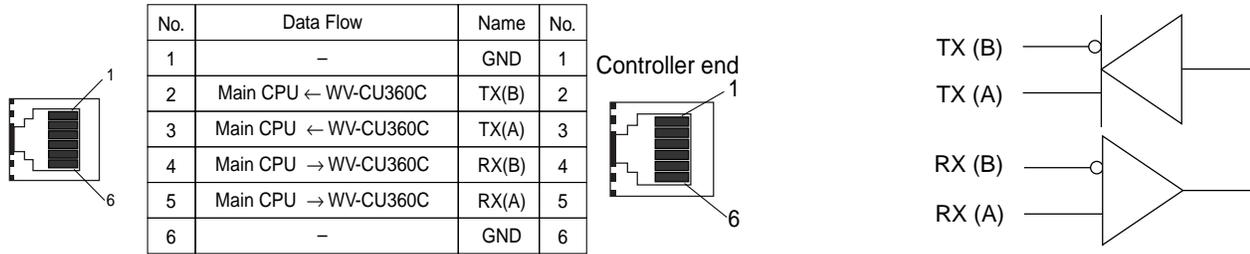


● DATA Port Connection

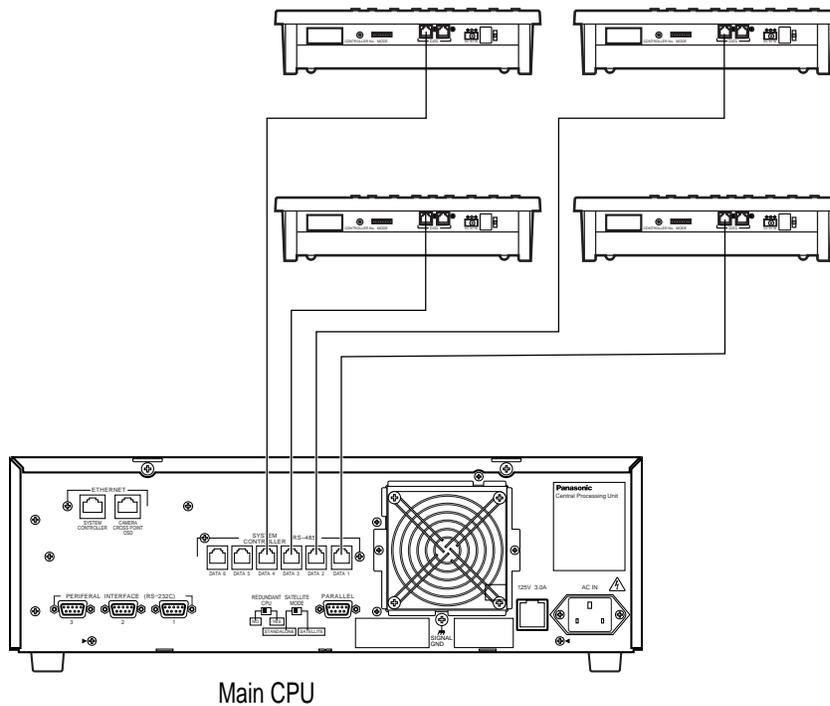
Data ports are connected with RS-485 cables among devices using Camera Communication protocol as follows.

Note: When using cables other than those supplied, make sure to use shielded 4-wire twisted pair cable suitable for RS-485 communication.

• Internal Diagram

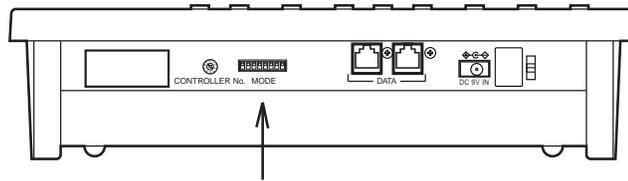


• Basic Connection



■ DIP Switch Setting

An 8-bit DIP switch mounted on the rear panel specifies communication mode, etc. The default position is marked with an asterisk *.



	Function	SW position	
		OFF	ON
Bit 1	System ID	*	See below
Bit 2	System ID	*	See below
Bit 3	System ID	*	See below
Bit 4	Reserved	*	Not used
Bit 5	Line termination	Off	On*
Bit 6	Operation mode	Operator*	Administrator
Bit 7	Baud Rate Selection	Auto-selection*	Set up from CU360
Bit 8	Repeat Transmissions	1 time*	3 times

■ Controller Number Setting

Set this switch always to 1 when using the System Controller in a System 850.

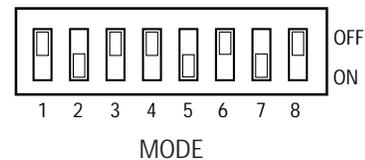


CONTROLLER No.

● Switch Setting Procedures

Set the MODE DIP switch and CONTROLLER NO. switch as follows.

1. Remove the DC plug from the rear of the controller.
2. Set the switches as follows.



- Bit 1 should be set to OFF*.
- Bit 2 should be set to ON.
- Bit 3 should be set to OFF*.
- Bit 4 should be set to OFF*.
- Bit 5 should be set to ON* when connecting with a System 850 in a home run (one to one) fashion.
- Bit 6 should be set to OFF* (Operator) normally, or ON (Administrator) when setting up the controller.
- Bit 7 should be set to ON. The baud rate is selected in the controller setup.
- Bit 8 should be set to OFF* normally.

3. Connect the DC plug to the controller.

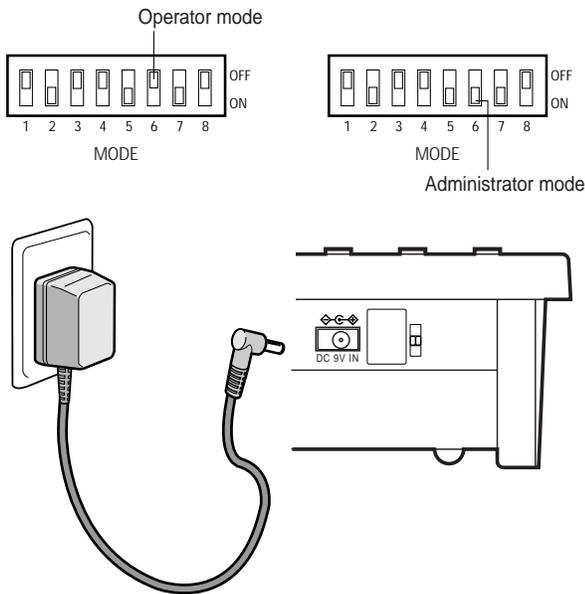
SETUP PROCEDURES (For System 850)

To display the setup menus for the WV-CU360C System Controller on the LED display, set the MODE switch and power up the controller as described below.

■ Prior to Setup

Do the following before entering the setup mode.

1. Confirm that all necessary connections and switch settings are complete.
2. With the power turned off, move bit #6 of the MODE switch on the rear to ON (administrator) position.
3. Supply power to the controller.
4. Turn on the power of cameras and other system units.
5. The LCD displays [SETUP]. The controller is ready to enter the setup mode.

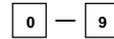


When setup is completed, restore the switch to its original position.

1. With the power turned off, move bit #6 of the MODE switch on the rear to OFF (operator) position.
2. Supply the power to the controller.

■ Buttons and Controls used for Setup

The following buttons and joystick operations are used for setup.

 Numeric buttons: To select a parameter

 CAM (ENTER) button: To execute modes and parameters
To enter a submenu

 CLEAR (ESC) button: To return to the previous menu

 Up: To select a setup menu

 Down: To select a setup menu

 Left: To decrease the parameter

 Right: To increase the parameter

■ Setup Procedures

Set up the baud rate and parity check mode for the controller while observing the LED on the front panel.

Menu Selection	Setup Menus			Parameter Selection (default*)	
	LED Display	Reading	Function		
	SEtUP	Setup	Initial Display	CAM <input type="text"/> SET →	LED prompts you to enter password
	- - - - blinking	Administrator Password Prompt	Authorization		Enter a 5-digit password, press CAM (12345*) <input type="text"/> SET
Move Joystick UP and down to select 	SPEEd	Speed	Baud Rate (bps)	Press twice CAM <input type="text"/> SET →	(1) 2 400 (2) 4 800 (3) 9 600* (4) 19 200
	PrtY	Parity	Parity Check	← MON <input type="text"/> ESC	(1) None* (2) Even

● Administrator Authorization

1. Press the **CAMERA (ENTER)** button while [SEtUP] is displayed. The [- - - -] prompt appears.
2. Enter a password using the numeric buttons, then press the **CAMERA (ENTER)** button. The default setting is [12345].
3. If the password entered is valid, [SPEEd] appears. If password entry failed, the menu returns to [SEtUP].

● Baud Rate

In this menu, the communication speed (bps: bits per second) is selected. The communication speed should match that of the WJ-SX850.

1. Display [SPEEd], and press the **CAMERA (ENTER)** button twice.
2. Select a parameter entering a bracket-enclosed number, e.g., (3), moving the joystick. The default setting is 9 600 bps.

- (1) 2 400: 2 400 bps
- (2) 4 800: 4 800 bps
- (3) 9 600: 9 600 bps
- (4) 19 200: 19 200 bps

Note: Selecting a slower rate (e.g., 2 400 bps) will delay the response time (e.g., the time until an activated alarm is reset).

3. Press the **CAMERA (ENTER)** button to validate the selection.
4. Press the **CLEAR(ESC)** button to return to the [SPEEd] menu.

● Parity

In this menu, the parity check mode is selected.

1. Display [PrtY] and press the **CAMERA (ENTER)** button twice.
2. Select a parameter with the joystick. The default setting is None.
n: None
E: Even parity
3. Press the **CAMERA (ENTER)** button to validate the selection.
4. Press the **CLEAR(ESC)** button to return to the [SPEEd] menu.

Note: The baud rate and parity check mode of the WJ-SX850 and the controller must be the same, otherwise data communications will not function.

OPERATING PROCEDURES (For System 850)

Note: This section describes only some important operations such as login, logout, and different operations from the front panel of the System 850. Please refer to the manual included with the System 850 for further information on camera selection, monitor selection and so forth.

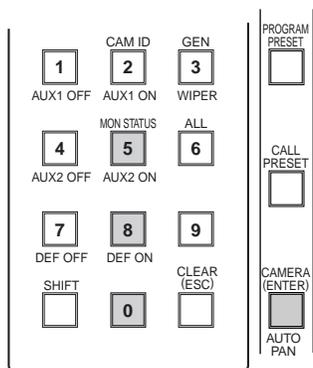
■ Login & Logout

● Login

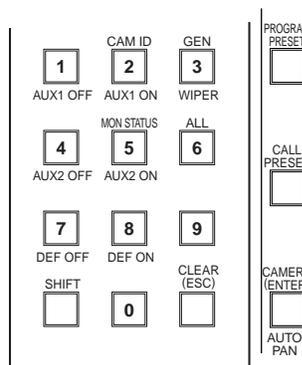
1. Turn on the power switches of all system components.
2. Turn on the power of the WV-CU360C System Controller by connecting the AC adapter to the AC outlet. The OPERATE indicator lights up and "NO USER" will appear on the LED display of the System Controller.



3. Enter your registered Operator ID number (up to 5 digits) using the numeric buttons, then press the **[CAMERA (ENTER)]** button. The underline appears on the LED display.



4. Enter your registered Password (up to 5 digits) using the numeric buttons, then press the **[CAMERA (ENTER)]** button. If the operator ID and password entered are valid, the LED will display "READY".



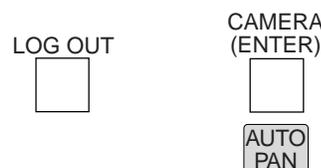
Note: If login has failed (operator or password error), the PROHIBITED indicator on the controller will light up and "NO ACCESS" will blink on the LED display for about 3 seconds. Then the login procedure returns to the start.



● Logout

1. While holding down the **LOG OUT** button, press the **[CAMERA (ENTER)]** button.

"NO USER" is displayed on the LED display.



Appendix

SPECIFICATIONS

<Controller>

Power Source:	9 V DC, 400 mA (Use the supplied AC Adapter only)
Data Output/Input Port:	6-conductor modular jack (RS-485, Full Duplex) x2
Switching Functions :	Camera selection, Monitor Selection/Sequence Switching of Live and Playback/Changing the Multiscreen Picture Layout/ Still/Electronic Zoom/Sequence (available for WJ-FS309/316/409/416/616/ 616C)
Controller Number	1-8 (Rotary Switch)
Unit Address Selection:	1-99 (for PS·Data), 1-16 (WJ-FS616/616C)
Monitor Number Selection:	1-99 (for PS·Data)
Camera Number Selection:	1-199 (for PS·Data)
Lens Functions:	Iris: Open/Close/Preset (only with DC control lens) Focus: Near/Far/Auto Focus Zoom: Wide/Tele
Housing:	Defroster: On/Off Wiper: On/Off Auxiliary 1: On/Off Auxiliary 2: On/Off
Pan/Tilt:	Manual Pan: Right/Left Manual Tilt: Up/Down Auto Pan, Auto Sort, Auto Sequence, Random Pan, Preset Position, Home Position, Camera Patrol
Other Camera Controls:	Camera Setup Camera Function
System Operation:	Alarm (Display/Suspend/Recall/Reset) Setup
Ambient Operating Temperature:	-10°C - +50°C (14°F - 122°F)
Ambient Operating Humidity:	Less than 90 %
Dimensions:	300 (W) mm x 74 (H) mm x 177 (D) mm [11-13/16" (W) x 2-15/16" (H) x 6 15/16" (D)]
Weight:	1.3 kg (2.9 lbs.)

<AC Adapter>

Input	
Power Source:	120 V AC, 60 Hz
Power Consumption:	10 W
Output	
Power Source:	9 V DC
Power Consumption:	400 mA

Dimensions and weight are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORIES

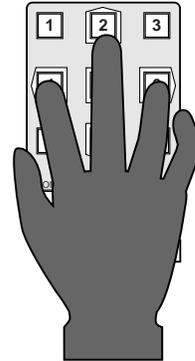
AC Adapter	1 pc	Panel Template for WJ-FS616/616C	1 pc
6-conductor Modular Cable Assembly	1 pc	Panel Template for WJ-SX350	1 pc
		Panel Template for System 850	1 pc

ALL RESET

The System Controller WV-CU360C can be reset to the default settings.

1. Remove the DC plug of the AC adapter from the controller.
2. While pressing numeric buttons **2**, **4** and **6** simultaneously, plug in the DC plug.
3. When all indicators light up, resetting is completed.

Note: Keep the DC plug connected to the controller until the reset procedure is completed.



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