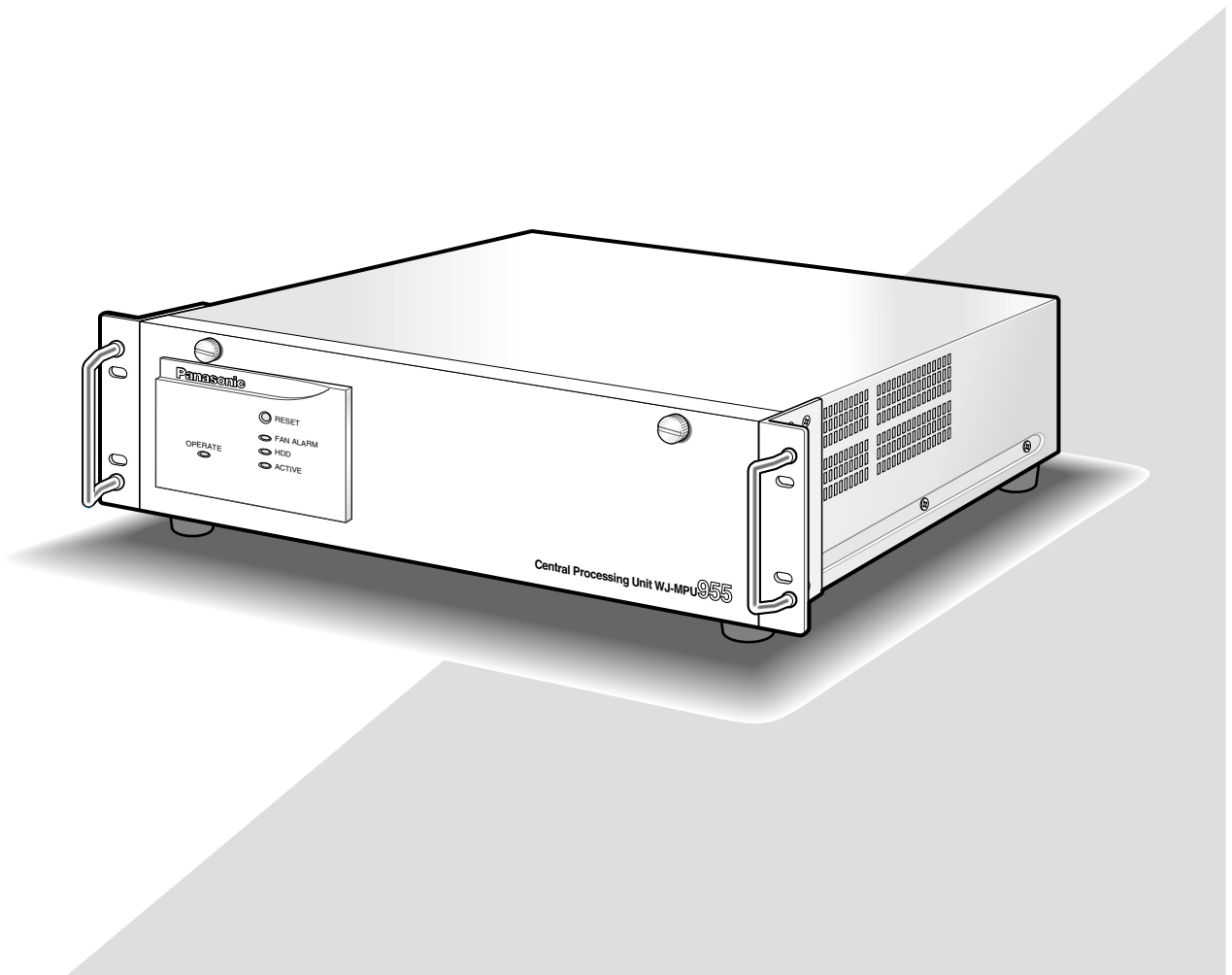


Panasonic®

Central Processing Unit Operating Instructions

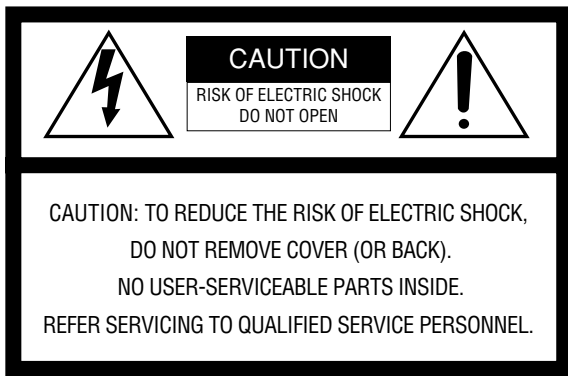
Model No. **WJ-MPU955**



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

Caution:

Before attempting to connect or operate this product, please read the marking on the rear panel.



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.



Power disconnection. Unit with or without ON-OFF switches has power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. Unplug the power cord to disconnect the main power for all unit.

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. WJ-MPU955

Serial No. _____

WARNING: To prevent fire or electric shock hazard, do not expose this appliance to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

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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■ Overview

The WJ-MPU955 is the Central Processing Unit for the Network Security System. The Network Security System is a high quality video imaging system offering complete management of medium and large-scale installations. The WJ-MPU955 is capable of controlling up to 1,024 video inputs and 256 video outputs with 64 system controllers. The Network Security System is a truly network-based system, and all the devices in the system are connected through IP-based networks.

■ Purpose

This document is to provide end users with the product information about the WJ-MPU955 and the Network Security System based upon it.

■ Precaution

- We recommend that you refer all tasks related to the system installation to qualified service personnel or system installers.
- We recommend that you make a note of all your system settings and save them. This will help you if you are required to change the system configuration, or if an unexpected event or failure occurs.
- We encourage you to obtain and read all the related documents in reference section and become familiar with the CPU unit and other related devices and software.
- **Built-in backup battery**
The built-in backup battery will last approximately 3 years. The replacement cost of the built-in battery is not covered by the warranty even if it needs to be done within the warranty period. Consult your dealer for servicing.
- **Cooling Fan**
The cooling fan will operate for approximately 30 000 hours. The replacement cost of the cooling fan is not covered by the warranty even if it needs to be done within the warranty period. Consult your dealer for servicing.
- **Hard Disk Drive**
The Hard Disk Drive will operate for approximately 30 000 hours. The replacement cost of the hard disk drive is not covered by the warranty even if it needs to be done within the warranty period. Consult your dealer for servicing.

■ Network Environment

The Network Security System is an IP network-based system. Creating a reliable network is the key to a successful system. Please note that the encoder device sends a multi-cast stream (9.2 Mbps max. X 4 streams). Obtain confirmation from the network administrator that this bandwidth usage will not cause a network failure.

■ Limitation of Liability

In no event shall Matsushita Electric Industrial Co., Ltd. be liable to any party or any person, except for replacement or reasonable maintenance of the product, for the cases including, but not limited to below:

- Any damage and/or loss, including without limitation, direct or indirect, special, consequential or exemplary, arising out of, or relating to, the product;
- Personal injury and/or any damage caused by inappropriate use or negligent operation by the user;
- Unauthorized disassembly, repair, or modification of the product by the user;
- Any problem, consequential inconvenience, or loss or damage, arising out of the system being combined with devices from a third party

■ WJ-GXE900/GXD900 Version

- To use WJ-GXE900 and WJ-GXD900 devices with WJ-MPU955, the devices' firmware must be version 2.00 or later.
- The version is displayed on the home page of either device when accessed via a web browser.
- If the version is earlier than 2.00, contact your sales representative.

■ References

- [1] Admin Console User's Guide
- [2] MPEG2 Encoder and MPEG2 Decoder Operating Instructions
- [3] WJ-MPS850 Instructions
- [4] Time Management Utility User's Guide

■ Trademarks and Registered Trademarks

- Intel and Pentium are trademarks of Intel Corporation.
- Other names of companies and products contained in this operating instructions may be trademarks or registered trademarks of their respective owners.

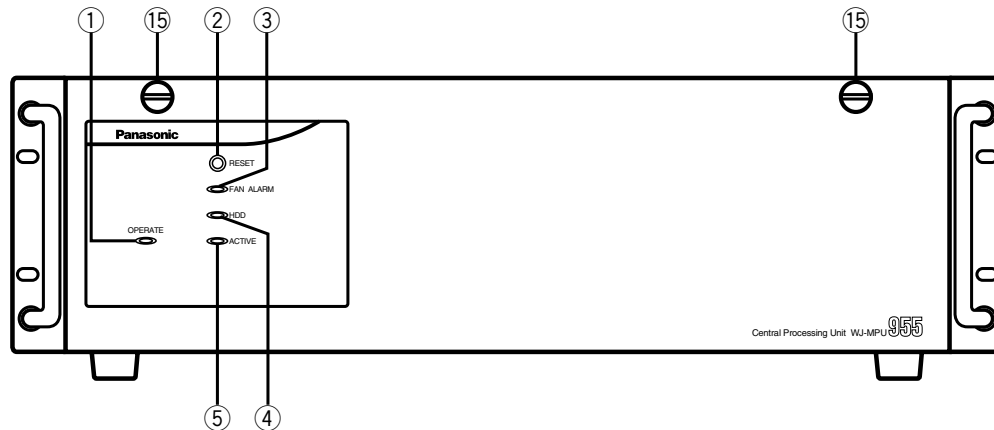
Central Processing Unit

The WJ-MPU955 is a main component of the Network Security System. It uses an Intel® X86 processor based computer running in the multiple tasks operating environment. The system also supports two WJ-MPU955 working together to form a redundant system.

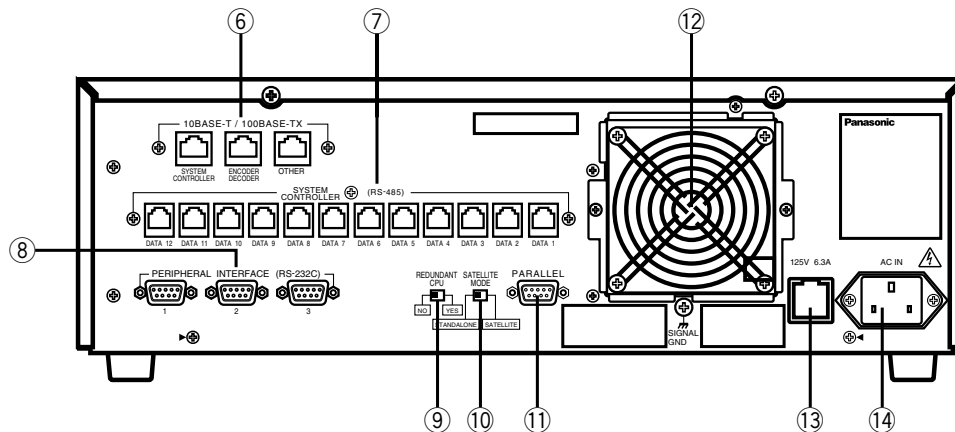
Layout

The following diagrams are the front panel and the rear panel of the WJ-MPU955.

● Front Panel



● Rear Panel



Panel Details

① Operation Indicator (OPERATE)

Operation indicator ① is on when the power of the WJ-MPU955 is turned on. The power switch of the CPU is located underneath the front panel. Remove the front panel by removing the two screws on the panel.

② Reset Button (RESET)

The RESET button ② is recessed inside the front panel hole to the right on the OPERATE indicator. Press this button when the CPU rejects control from outboard equipment.

Since the reset button is located 2/3 of an inch behind the front panel, you will need to use a small screwdriver or other tool that is less than 1/6 of an inch in diameter, and more than 1 inch long. If you are unable to access the reset button using this method, remove the front panel and press the button.

③ Fan Alarm Indicator (FAN ALARM)

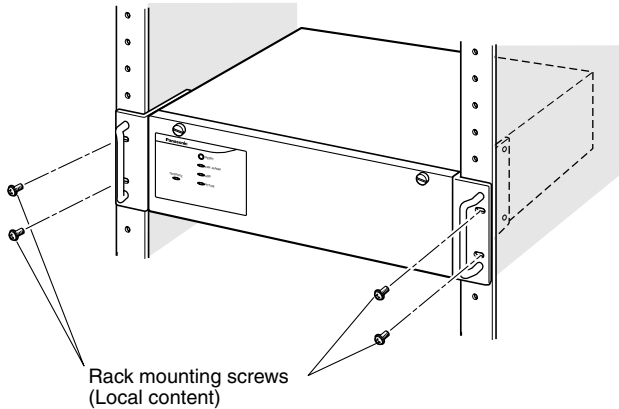
The FAN ALARM indicator ③ indicates the cooling fan status. This LED lights when a temperature rise in the CPU is detected. Turn the power off and refer servicing to qualified service personnel.

- ④ **Hard Disk Drive Indicator (HDD)**
The HDD indicator ④ indicates the hard disk drive status.
- ⑤ **Active Indicator (ACTIVE)**
The ACTIVE indicator ⑤ indicates the system status of the WJ-MPU955.
- ⑥ **Ethernet Ports (10BASE-T/100BASE-TX)**
The Ethernet Ports ⑥ exchange control data via Ethernet. The CPU can contain up to three Ethernet ports. In a standard setup, we suggest you use the first Ethernet port [SYSTEM CONTROLLER] for system controllers while the second port [ENCODER/DECODER] for video encoders and decoders. The third port [OTHER] is reserved for future use.
- ⑦ **Controller Ports [SYSTEM CONTROLLERS (RS-485)]**
The controller ports ⑦ are provided for controlling the system with WV-CU360C system controllers. Up to 12 controllers can be connected.
- ⑧ **Peripheral Interface Ports [PERIPHERAL INTERFACE (RS-232C)]**
These ports ⑧ are reserved for future use or factory tests.
- ⑨ **Redundant CPU Selector (REDUNDANT CPU)**
The selector ⑨ can be set to either a redundant system or a standalone system. The factory default setting is NO, for standalone.
- ⑩ **Mode Selector (SATELLITE MODE)**
The mode selector ⑩ is always kept in STANDALONE position.
- ⑪ **Parallel Port (PARALLEL)**
The parallel port ⑪ is used to connect to the WJ-MPS855 CPU Switch Unit for a redundant system.
- ⑫ **Cooling Fan Unit**
The cooling fan unit ⑫ prevents the temperature of the CPU from rising. Do not block the ventilation opening on the cover.
- ⑬ **Fuse Holder**
The fuse holder ⑬ is shown in rear view diagram.
- ⑭ **AC Inlet Socket (AC IN)**
Plug the power cord (supplied as a standard accessory) into this socket ⑭ and connect it to an AC outlet.
- ⑮ **Screws** to access the power switch.

■ Mounting into the Rack

The CPU unit (WJ-MPU955) should be mounted into the rack as shown in the following diagram. Here are the steps:

1. Remove the four rubber feet by removing four screws from the bottom of the CPU unit
2. Install the CPU unit in the rack, securing it with the four screws
3. Secure the rear of the appliance to the rack by using the additional mounting brackets procured locally if the rack is subject to vibration



The cooling fans inside the CPU unit keep the CPU unit working properly. They are subject to wear and need to be replaced periodically. Do not block the ventilation slots on the cover to prevent the appliance from overheating. Always keep the temperature in the rack below 45 °C (113 °F).

■ Configuration File Modification

The system configuration file is referred to as the SYS.INI file. It contains system-wide configuration information, and can be modified by the operators through an administration tool. See reference [1].

The CPU unit contains default SYS.INI file. (Refer to p.19)

The CPU unit should work with the default system configuration file set by the factory at the time of shipping. To modify the default configuration file, you can use the administration tool (Admin Console). From the Admin Console main menu:

- Select CPU Units from the main bar's Domain;
- Select Sys tab from the CPU System Configuration screen;
- Upload the SYS.INI file from the CPU unit using the 'Get from CPU' button in the SYS Transfer section;
- Modify the system configuration file that appears in the document area of the window;
- Save the system configuration file using the 'Save' button in the SYS Archive section;
- Download the configuration file using the 'Put to CPU' button in the SYS Transfer section;
- Reboot the CPU unit

■ System Database

The system database contains system devices, system resources, and system programmable events and automation information. The system administrator can configure the system database using the administration tool. The CPU unit contains a default database when it arrives from the factory.

A default database file is also provided on the CD-ROM. The contents of the default database file – 01 = sample.adm – appear in the Default Database Contents section. (Refer to p.24)

Connect with System Devices

In addition to the WJ-MPU955, users require other system devices in order to form the Network Security System.

System Controllers

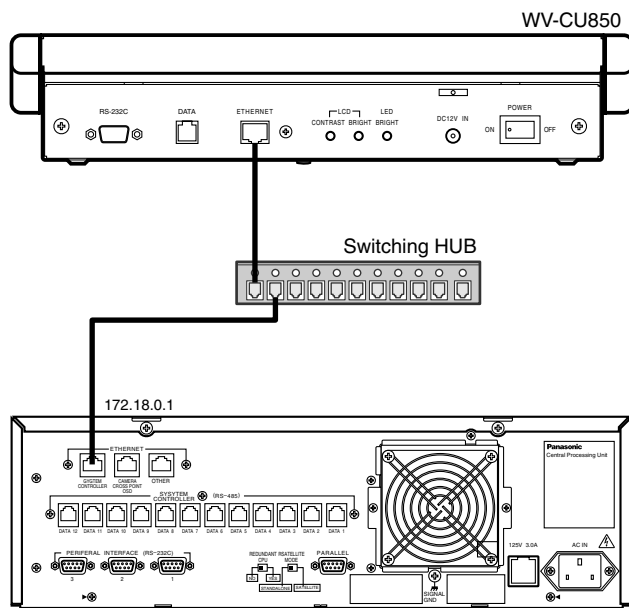
A system controller is an operator console, and it provides a user interface for operators to interact with the Network Security System. The system can support up to 64 system controllers.

Ethernet-Based Controllers

The Ethernet-based controller is called a CU850 controller (WV-CU850). It connects to the CPU unit's Ethernet port (see Panel Details ⑥) through an Ethernet hub in an IP-based local area network.

Ethernet-Based Controller Setup

To add CU850 controllers to the system, use the administration tool (Admin Console) and add an entry to the system controller database. You need to assign a controller ID for each controller, and enter the Ethernet address from the bottom of the each controller. See reference [1] for more information.

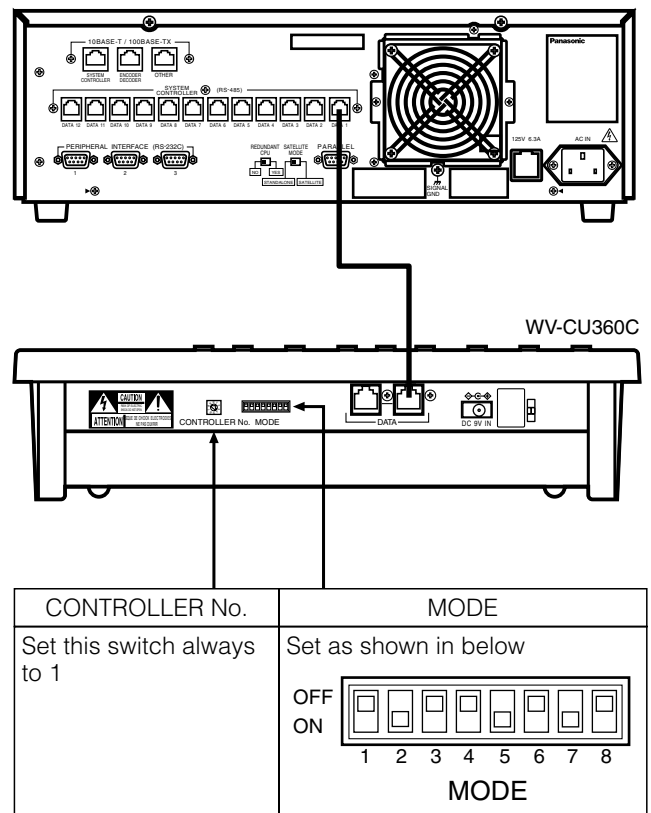


RS485-Based Controllers

There is an RS485-based controller - the CU360C (WV-CU360C). The controller connects to the CPU unit through its RS485 controller port (see Panel Details ⑦). The system can support up to twelve RS485 based controllers.

RS485-Based Controller Setup

To add a CU360C controller to the system, use the administration tool (Admin Console) and add an entry to the system controller database. You need to assign a controller ID for each controller, and enter the RS485 port number where the controller is going to connect to. See reference [1] for more information.



■ CPU Switch Unit

The standard system consists of one CPU unit. In order to create a redundant Network Security System, customers would need to purchase two CPU units (or one additional CPU unit if the system is already in place) plus a CPU Switch Unit, WJ-MPS850. The CPU Switch Unit is a computer that monitors and manages both CPU units.

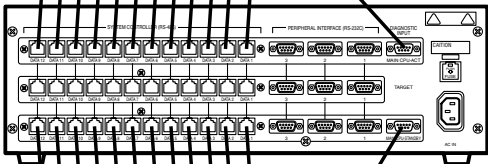
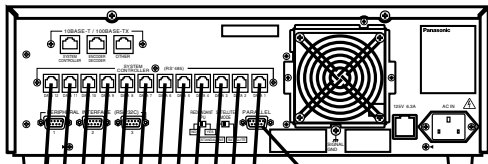
● Operation

At any given time that the system is running, one of the CPU units is in an Active state and the other is in a Standby state. If the Active CPU fails, the CPU Switch Unit will automatically switch the Standby unit to an Active state.

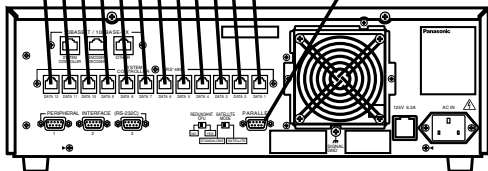
● Connect with CPU Units

The CPU Switch Unit connects to the CPU units through its parallel port (see section ①).

A CPU



B CPU



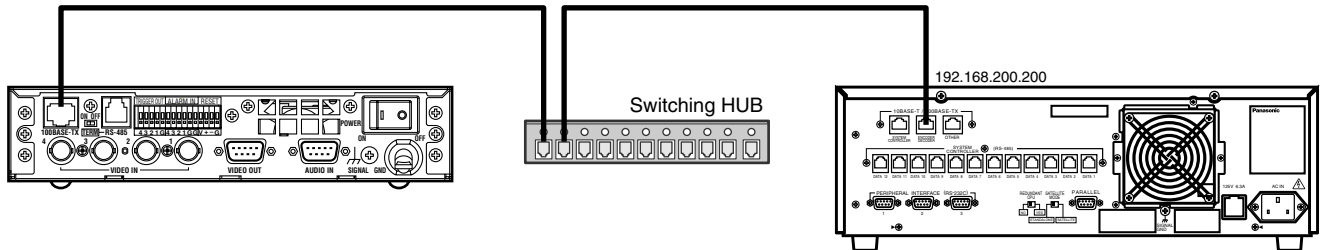
- Connect the RS485 modular cables between the controller ports (RS-485) of the CPU units and the controller ports (RS-485) of the CPU Switch Unit.
- Connect the diagnostic cables between parallel ports of the CPU units and the diagnostic input ports of CPU Switch Unit.
- Set the redundant CPU selector to YES on the rear of the A and B CPU units.

■ Digital Video Encoder Devices

Digital video encoder devices refer to MPEG2 video encoder devices (WJ-GXD900). They connect to the CPU unit through an Ethernet switching hub in an IP based network. See reference [2].

● Connect with CPU unit

The video encoders connect with the CPU unit through its Ethernet port (see Panel Details ⑥) and one or more switching hub units. The system can support up to 256 video encoder devices.

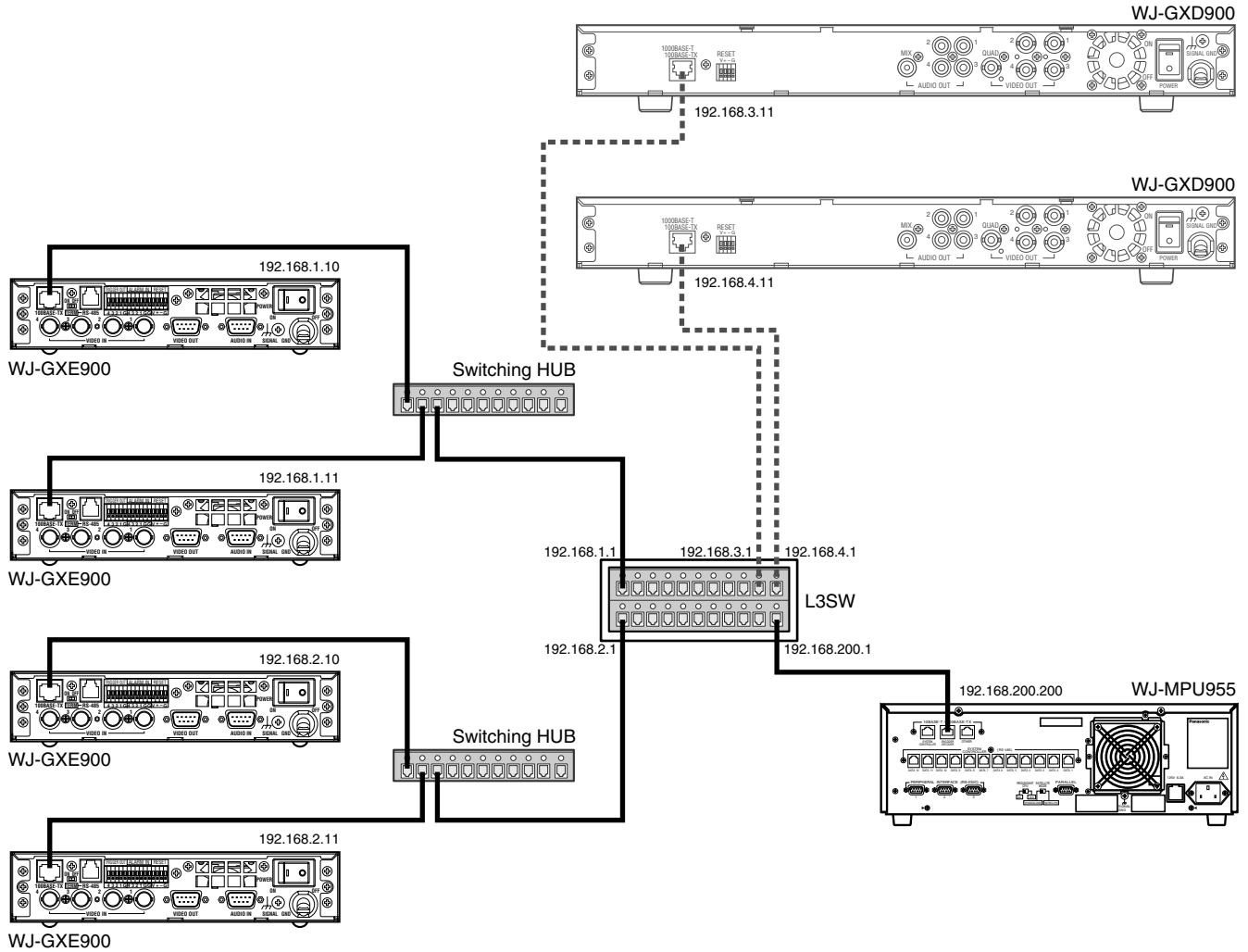


● Setup from Administration Tool

In order to be added to the Network Security System, an encoder device must be entered into the digital device database. In Admin Console, select Switch Nodes from the Domain menu, select Digital (GX) from the sub-menu that appears, and then enter the information for the encoder device. Please note, you need to know the Rotary Switch (SW1 A, B, C) readings from the encoder device. Rotary Switch settings must be unique for all the encoder and decoder devices. See reference [1].

● Setup Encoder Itself

In order to communicate with the CPU unit, the encoder device must also be configured. You can access the encoder device through its Web interface using Microsoft® Internet Explorer. Following is an example of the system layout and information to be filled into the table.



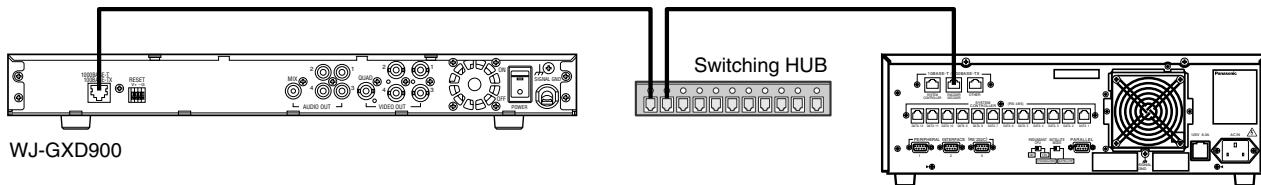
Encoder #	Operation Mode	IP Address	Subnet Mask	Default Gateway	DNS	Rotary Switch
1	Main CPU mode	192.168.1.10	255.255.255.0	192.168.1.1	0.0.0.0	0-0-1
2	Main CPU mode	192.168.1.11	255.255.255.0	192.168.1.1	0.0.0.0	0-0-2
3	Main CPU mode	192.168.2.10	255.255.255.0	192.168.2.1	0.0.0.0	0-0-3
4	Main CPU mode	192.168.2.11	255.255.255.0	192.168.2.1	0.0.0.0	0-0-4

■ Digital Video Decoder Devices

Decoder devices refer to MPEG2 video decoder devices (WJ-GXD900). They connect with the CPU unit through an Ethernet switching hub in an IP based network. See reference [2].

● Connect with CPU unit

The video decoders connect with CPU unit through its Ethernet port (see Panel Details ⑥) and one or more switching hub units. The system can support up to 64 video decoder devices.

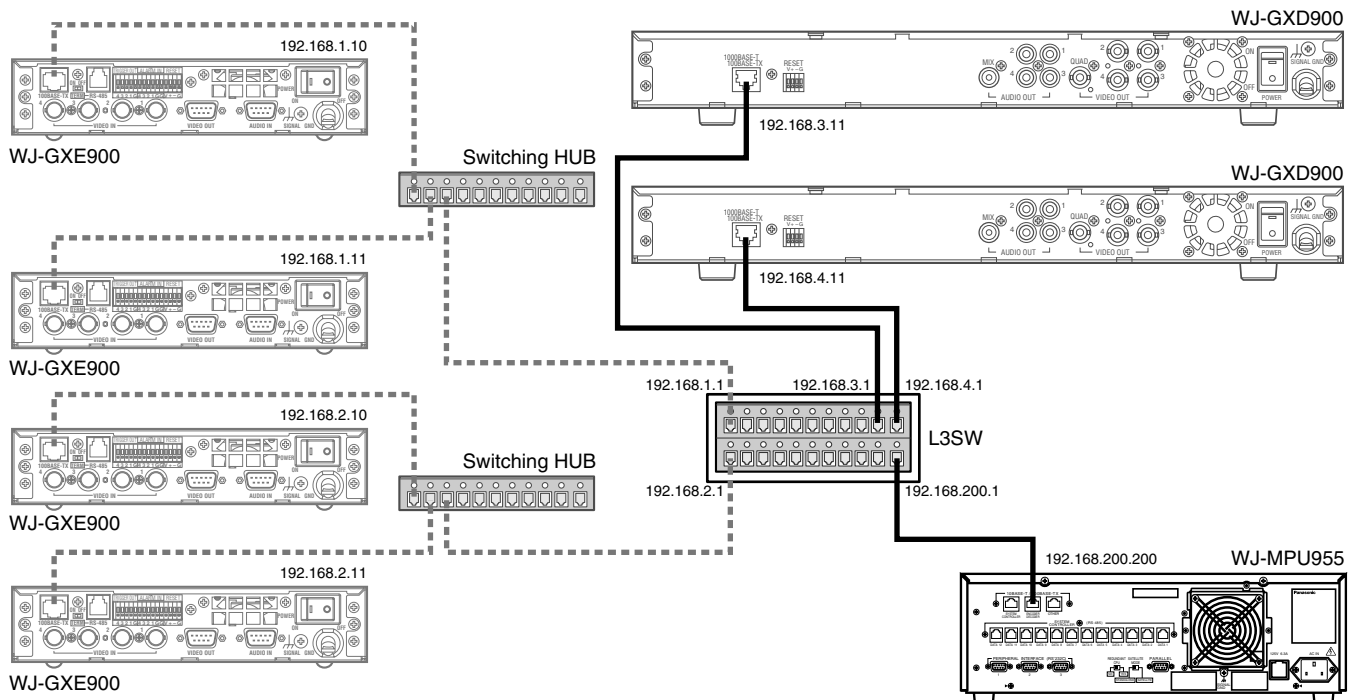


● Setup from Administration Tool

In order to be added to the Network Security System, a decoder device must be entered into the digital device database. In Admin Console, select Switch Nodes from the Domain menu, select Digital (GX) from the sub-menu that appears, and then enter the information for the decoder device. Please note, you need to know the Rotary Switch (SW1 A, B, C) readings from the decoder device. Rotary Switch settings must be unique for all the encoder and decoder devices. See reference [2].

● Setup Decoder Itself

In order to communicate with the CPU unit, the decoder device must also be configured. You can access the decoder device through its Web interface using Microsoft® Internet Explorer. Following is an example of the system layout and information to be filled into the table.



Decoder #	Operation Mode	IP Address	Subnet Mask	Default Gateway	DNS	Rotary Switch
1	Main CPU mode	192.168.3.11	255.255.255.0	192.168.3.1	0.0.0.0	1-0-0
2	Main CPU mode	192.168.4.11	255.255.255.0	192.168.4.1	0.0.0.0	1-0-1

■ Setup Layer 3 Switching (L3SW)

Layer 3 Switching refers to a class of high-performance routers optimized for wire speed Ethernet routing and switching services. It is required to support Internet Group Management Protocol (IGMPv2).

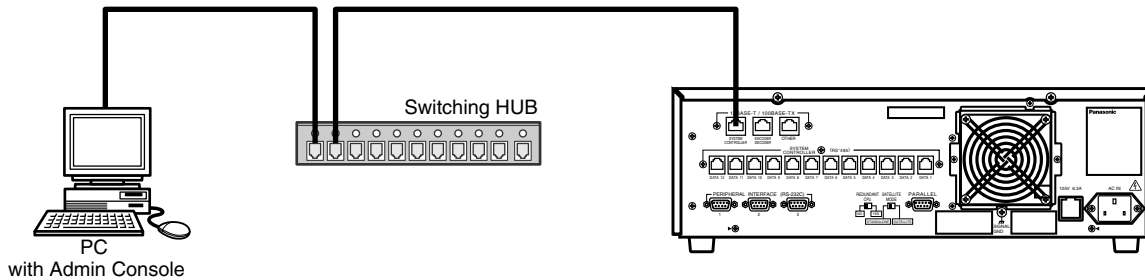
Based on the sample described in "Digital Video Encoder Devices" and "Digital Video Decoder Devices", the following table contains Ethernet ports information for the L3SW.

Port #	IP Address	Connection
1	192.168.1.1	Encoder #1,2
2	192.168.2.1	Encoder #3,4
3	192.168.3.1	Decoder #1
4	192.168.4.1	Decoder #2
5	192.168.200.1	WJ-MPU955

■ Administration Tool

The administration tool (Admin Console) is a system database management software. The software operates in the Microsoft® Windows® environment. See reference [1] for details.

To connect an administration station with the CPU unit, first install the Admin Console software to a Microsoft® Windows®-based personal computer, and then enter the CPU unit IP address in the tool's CPU screen which appears when the tool is ran the first time. The tool communicates with the CPU using the IP/FTP protocol.



■ Time Management Utility

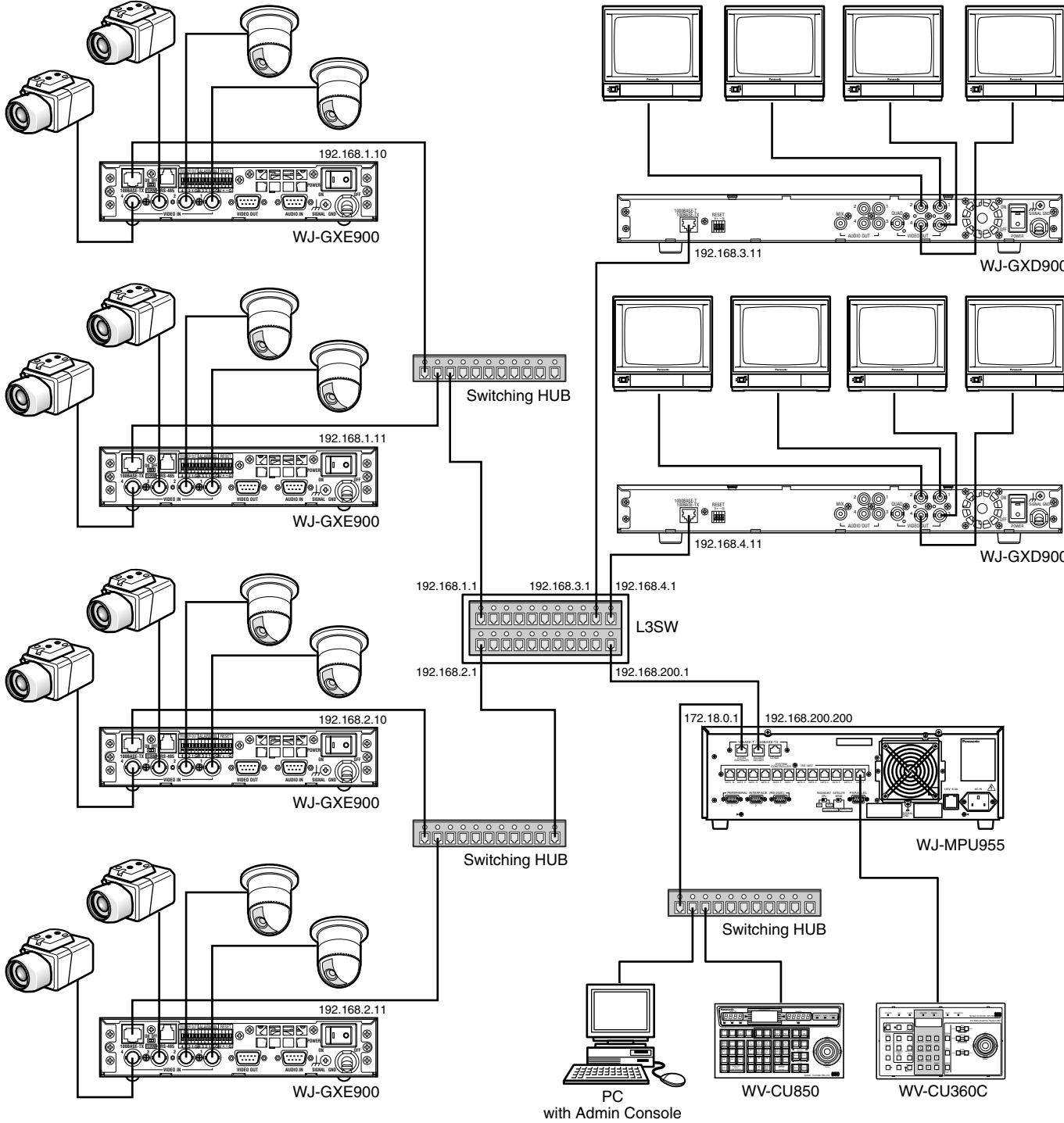
The Time Management Utility (TMU) is software used for time configuration. The software operates in the Microsoft® Windows® environment. We recommend that the Time Management Utility be installed on the same computer that runs the administration tool.

To connect the TMU to the CPU unit, operators should select IPA setup from the TMU main menu, and enter the IP address of the CPU unit. See the Time Management Utility Installation and configuration manual for more details See reference [4].

Network Security System Examples

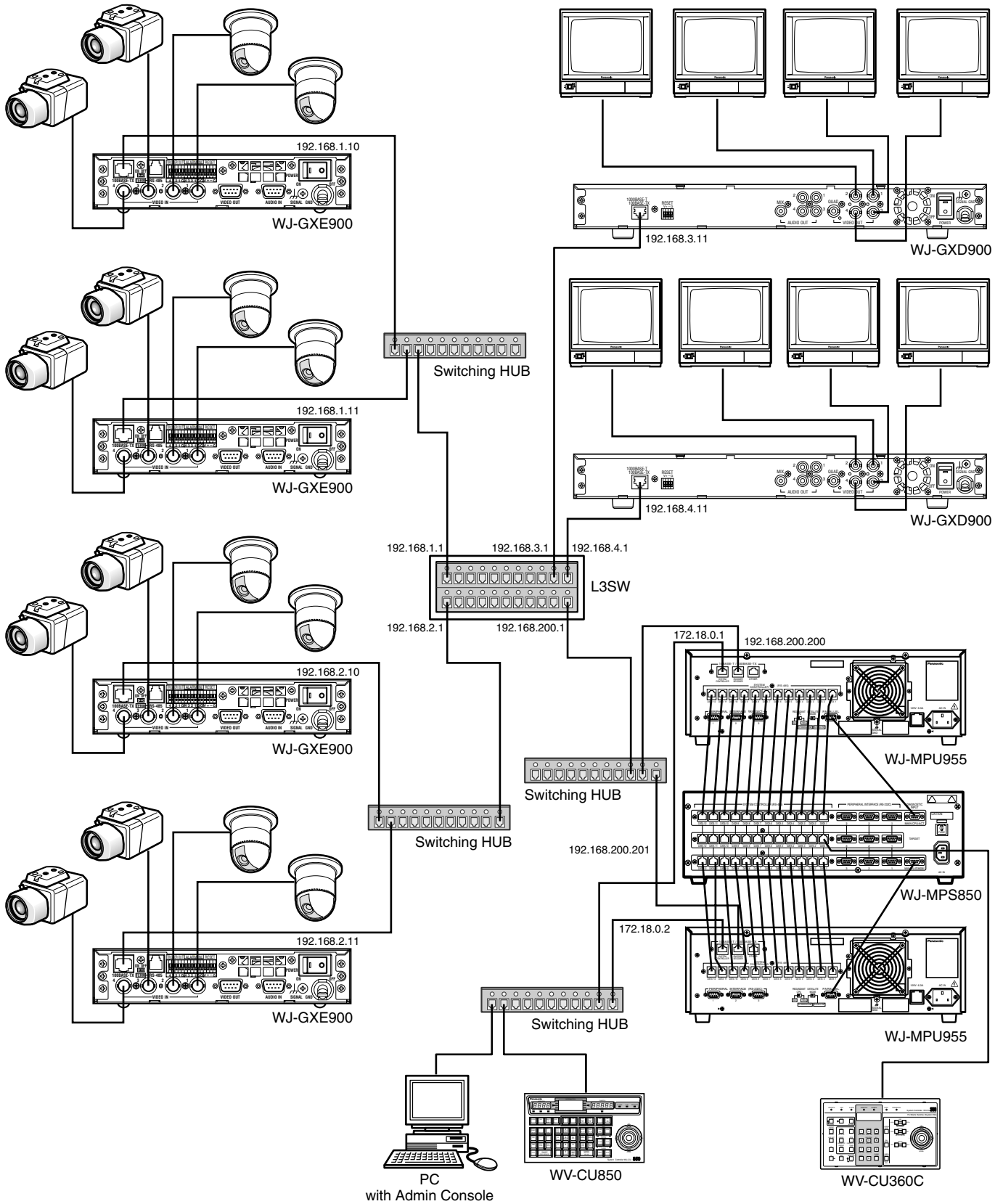
Standard System

The standard system contains one CPU unit. It can handle up to 256 encoder devices, up to 64 decoder devices, one administration station, and up to 64 system controllers. The IP addresses in the following diagram are the default addresses of the CPU network ports.



Redundant System

The redundant system requires two CPU units and a CPU Switch Unit. It can also handle up to 256 encoder devices, up to 64 decoder devices, one administration station, and up to 64 system controllers.



Main Features

■ Operator Functions

● Operator Area Changes

The system can be divided into multiple areas (up to 64), and an operator can change from one area to another if they have the necessary permission.

● Operator Log On and Off

Operators are assigned a user ID and password by a system administrator. A user ID and password are required for any operator to log on to the system. System administrators can specify to automatically log operators off if there is no activity for a pre-defined time period.

● Operator Class

The system allows administrators to define operator classes with up to 29 different privileges, and then assign each operator to one of the defined classes. The privileges are: permission override, area change, alarm select, all alarm reset, alarm acknowledge and reset, all alarm arm and disarm, alarm arm and disarm, alarm status (not currently supported), alarm history (not currently supported), digital output port control, camera select, camera position, camera preset programming, camera menu on and off, camera function enable, camera receiver, camera setup data, camera lock, camera lock override, tour sequence, group sequence (not currently supported), group preset (not currently supported), all sequence stop (not currently supported), sequence controller programming, video loss, monitor select, monitor lock, on screen display on and off, time and date on and off.

● Operator Priority

The system administrator can assign a priority to each operator. When two operators compete for system resources, only the operator with the higher priority gets the resources.

■ Video Switch and Video Routing

This function allows operators to switch video from one video source to another, if the permission is granted. For multiple operators competing for the same resource, it only allows the highest priority operator to perform this function. The next highest priority operator gains control when the highest priority operator releases the resource.

■ Video Camera Function

● Camera Control

The system provides operators with the camera control functions. The supported functions are: pan, tilt, zoom, focus, and iris.

● Camera Operation

The system provides operators with the following camera operation functions:

- Camera menu control
- Camera preset call and programming
- Camera receiver control

■ Tour Sequences

● Program the Tour Sequences

This function allows administrators to program tour sequences, and store them in the system database. The WJ-MPU955 can execute 20 tour sequence steps per second. If the WJ-MPU955 is asked to perform more than 20 steps in a single second, it will automatically form 20-step groups, and alternate their execution over a period of two or more seconds.

● Tour Sequence Operation

The tour sequence operation includes start, stop, pause, run, next step, and previous step.

■ Alarm Programming and Handling

● Program the Alarm

This function allows administrators to program alarms, assign alarm display targets, and define alarm actions.

● Control Alarm

Alarm controls are operator functions. These functions allow the highest priority operator to seize the alarm and control it. These functions also allow the next highest priority operator to gain control after the highest priority operator releases the alarm.

The alarm controls include:

- Arm and disarm alarms
- Acknowledge active alarms
- Reset acknowledged or active alarms

The system also supports automatically resetting and acknowledging alarms through configuration by the administration tool (Admin Console).

● Control Alarm Action

The system supports the following alarm actions:

- Camera spots
- Tour sequences
- Text display

The system supports up to 10 alarm actions, and allows operators to control acknowledged alarm actions.

■ Event Operation

The function allows administrators to program system events. The event function currently supports following operations:

- Camera spot
- Tour sequence
- Arm and disarm alarm
- Up to 4 system modes

■ Digital Input and Output Functions

This function allows operators to select and set digital output ports. The system alarm function can program the digital output ports as part of the alarm state change indication. The system alarm function can also program the digital input ports as alarm trigger sources.

■ System Log

The system supports following system logs:

- Operator log
- Alarm log
- Video loss log

Default SYS.INI Configuration

In most cases, you will not need to change the settings in the sys.ini file. However, if changes are necessary, the MPU955 CPU must be rebooted.

Text appearing in blue is explanatory, and not part of the sys.ini file.

Interface section

The CPU can incorporate up to three Ethernet network interface cards.

[INTERFACES]

***{ Number of interfaces in the system}

Numinterfaces=3

The number used here is the number of the Ethernet ports on MPU955 CPU.

***{ Interface Definitions }

***{ Interface<Number>=<IPA>,<SUBNET MASK>,<BOOT SERVER IPA> }

***{ !! Note: The InterfaceX IPAs must match the MainX CPU }

***{ hardware settings in order for the System to }

***{ operate correctly!! }

***{ MainA CPU }

In a standalone system, the MPU955 CPU should use the IP addresses that follow. In this case, the {MainB CPU}'s interface numbers should be commented with asterisks.

Interface0=192.168.200.200,255.255.255.0,192.168.200.200

Interface0 is an interface for GX devices.

Interface1=172.18.0.1,255.255.0.0,172.18.0.1

Interface1 is an interface for system controller.

Interface2=172.16.192.1,255.255.0.0,172.16.192.1

Interface2 is used for SNMP, Sntp feature. (Not currently supported)

***{ MainB CPU }

In a redundant system, the second MPU955 CPU should use following IP addresses (remove the asterisks below). In this case, {MainA CPU}'s interface numbers should be commented with asterisks.

***Interface0=192.168.200.201,255.255.255.0,192.168.200.201**

***Interface1=172.18.0.2,255.255.0.0,172.18.0.2**

***Interface2=172.16.192.2,255.255.0.0,172.16.192.2**

Frames section

[CAUTION] This section does not apply to the MPU955 system, and should not be changed.

[FRAMES]

***{ MX Frame definition from Admin file }

***{ MXSW has format <num_rows>,<num_cols>,<interface_num> }

***{ All others use <num_functions>,<interface_num> }

***{ All 0's used for digital-only systems. }

MXSWFunction=0,0,0

MXCONFunction=0,0

MXOSFunction=0,0

MXDIOFunction=0,0

MXRMSFunction=0,0

Procs section

This section tells the system which interface is to be used by certain process files.

```
[PROCS]
***{ Process Interface Assignments }
***{ Format: <Process Name>=<interface_num> }
***{ Set these three to the interface_num of the Ethernet keyboards: }
```

Keybp=1

Mxconts=1

Mxpfw=1

“1” means interface1 in [INTERFACES] section. MPU955 CPU has 3 software processes (listed above) to communicate to a CU850. All processes should use same interface number. Factory default setup is interface “1”.

```
***{ Set Swcpu to the same interface_num for all unit CPUs: }
```

Swcpu=1

“1” means interface1 in [INTERFACES] section. In case of redundant system, Both CPUA and CPUB must be assigned the same interface_num. Factory default setup is interface “1”.

```
***{ Set UnitManager to the same interface_num for all system CPUs: }
```

UnitManager=2

Not currently supported

```
***{ Set CSntp to the interface_num for EXTERNAL SNTP operation: }
```

CSntp=2

Not currently supported

```
***{ Set SSntp to the same interface_num for all system CPUs: }
```

SSntp=2

Not currently supported

```
***{ Set SNMPAgent to the same interface_num for all system CPUs: }
```

SNMPAgent=2

“1” means interface1 in [INTERFACES] section. Factory default setup is interface “2”.

OSD section

All settings in this section are set to factory default, which provide the best monitor layout.

```
[OSD]
***{ Initial OSD display position }
***{ Alarm text is placed on the General Status line. }
***{ Format: <DisplayItemPosition>=<x-position>,<y-position> }
```

TimeDatePosition=1,1

CamTitlePosition=1,16

MonStatusPosition=1,15

GenStatusPosition=1,14

```
***{ Time-Date, Camera Title and Camera ID Controls }
***{ Code 2 takes effect only if source is MXOSD }
***{ Format: <Control Name>=<control code> }
***{ control code 0 - OFF }
***{ control code 1 - ON }
***{ control code 2 - By Operator }
```

TimeDateControl=2

CamTitleControl=2

CamIDControl=2

```
***{ Time and Date display format }
***{ Format: TimeDateFormat=<format> }
***{ format 0 - DD/MM/YYYY }
***{ format 1 - MM/DD/YYYY }
***{ format 2 - DD/Mmm/YYYY }
***{ format 3 - YYYY/MM/DD }
***{ format 4 - Mmm/DD/YYYY }
***{ format 5 - DD/MM/'YY }
***{ format 6 - MM/DD/'YY }
***{ format 7 - DD/Mmm/'YY }
***{ format 8 - 'YY/MM/DD }
***{ format 9 - Mmm/DD/'YY }
```

TimeDateFormat=1

```

***{ Time-Hour Display format          }
***{ Format: TimeHourFormat=<format> }
***{ format 0 - 12 Hour                }
***{ format 1 - 24 Hour                }

```

TimeHourFormat=0**UNIT section****[CAUTION] This section should not be changed.**

[UNIT]

```

***{ The unit ID should be the same as the one defined in }
***{ the Global Admin database for this unit.             }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }
ID=1

```

RMS section**[CAUTION] This section does not apply to the MPU955 system, and should not be changed.**

[RMS]

```

***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the    }
***{ single asterisks below to make this section active. }
***{ Required only for PSDIC RMS                       }
*NumDedicatedRecorders=0
*NumBackupRecorders=0
*Review=0,0,0
*Backup=0,0,0
*IdleSource=0
*Links=0,0

```

LOG section**This section sets the frequency with which log files are saved to hard disk. The defaults below have the logs being copied every 10 minutes and stored for 7 days.**

[LOG]

```

***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the    }
***{ single asterisks below to make this section active. }
***{ Log generation/save characteristics                }
***{ Format: <LogFileName>=<Minutes>,<Days>              }
***{ Minutes = Frequency to copy to HD (1 - 30 min) }
***{ Note: Values outside this range = 1 min.       }
***{ Days = days to save on HD (5 - 30)              }

```

UserLog=10,7**SwLog=10,7****(SwLog is not currently supported)****AlarmLog=10,7****VideoLossLog=10,7**

RS232ALARM section

[CAUTION] This section should not be changed.

All RS232C ports can be set in Admin Console for the alarm interface. This section describes the characteristics for the external alarm port only. Other use of the port, such as for an external controller, must be configured using Admin Console.

```
[RS232ALARM]
***{ This section is optional. It is not required unless      }
***{ System defaults are not acceptable. Delete the         }
***{ single asterisks below to make this section active.    }
***{ Enable/Disable Serial Alarms by port                   }
***{ Format: AlarmPort=<port 1>,<port 2>,<port 3>             }
***{     port # = use "1" to indicate desired port (only one) }
***{     port # = use "0" to indicate ports not desired     }
*AlarmPort=1,0,0
```

ALARMTEXTDISPLAY section

This section sets up the characteristics of the alarm text - whether alarm text only or alarm and action text.

There is a 40 character maximum for alarm text.

```
[ALARMTEXTDISPLAY]
***{ This section is optional. It is not required unless    }
***{ System defaults are not acceptable. Delete the        }
***{ single asterisks below to make this section active.    }
***{ Alarm Text Display format                               }
***{ Format: AlarmTextDisplay=<option>                       }
***{ option 0 - Display Alarm Text only                      }
***{ option 1 - Display both Alarm Text (20 chars)          }
***{     and Action Text (20 chars)                         }
*AlarmTextDisplay=0
```

SYSTEM section

[CAUTION] This section should not be changed.

Use Admin Console to select the correct CPU size.

```
[SYSTEM]
***{ This section is optional. It is not required unless    }
***{ System defaults are not acceptable. Delete the        }
***{ single asterisks below to make this section active.    }
***{ Format: Keyboards=<num of controllers on this unit>     }
***{     Cameras=<num of cameras on this unit>              }
***{     Monitors=<num of monitors on this unit>            }
*Keyboards=64
*Cameras=1024
*Monitors=256
```

ROUTING section

[CAUTION] This section should not be changed.

This section allows the setting of certain network parameters. If you believe changes are necessary, consult your network administrator.

```
***{ This section is optional to the system. It is only required for external gateway. }
***{ Only one default gateway entry is allowed! }
***{ Format: default=<gateway IPA> }

```

The factory default settings below are up is commented out by “**”.

```
default=192.168.200.1
***{ Network entries must be grouped together although any number of entries is allowed. }
***{ Format: network=<destination>,<gateway>,<netmask> }
*network=64.0.0.0,192.168.200.44,255,0,0,0
*network=88.0.0.0,192.168.200.88,255,0,0,0
*network=33.5.0.0,192.168.200.66,255,0,0,0
*network=64.0.0.0,192.168.200.55,255,0,0,0
***{ Host entries must be grouped together although any number of entries is allowed. }
***{ Format: host=<destination>,<gateway> }
*host=33.44.55.66,192.168.200.66
*host=11.22.33.44,192.168.200.44
```

SNTP section

[CAUTION] This section should not be changed.

This section allows changes to Simple Network Time Protocol parameters, if SNTP is implemented.

```
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ This section lists user-defined client SNTP values, }
***{ sync rates and an external server address. }
***{ }
***{ Format: (VALUES INTERNAL TO THIS UNIT) }
***{ ClientMode=<mode> (act as an SNTP client) }
***{ modes: 0 - Internal (default) }
***{ 1 - Unicast }
***{ 2 - Anycast }
***{ 3 - Broadcast }
***{ ServerMode=<mode> (to expose its timestamp to }
***{ other units) }
***{ modes: 0 - Off }
***{ 1 - On (default) }
***{ InternalFrequency=<time frequency of sync (secs)> }
***{ -default is 600 sec (10 min) }
***{ }
***{ (VALUES FOR EXTERNAL CONNECTION) }
***{ NTPServerIPA=<IPA> of SNTP server }
***{ -for Unicast mode only; optional for }
***{ modes 0,2,3. }
***{ ExternalFrequency=<time frequency of sync (secs)> }
***{ -default is 18000 sec (5 hrs) }
***{ TZOffset=<hour> time zone offset from GMT }
***{ (+,-12 in integer values) }
***{ DaylightSaving=<on/off> (applies for the local }
***{ time zone) }
***{ on/off: 0 - off }
***{ 1 - on }
*ClientMode=1
*ServerMode=1
*InternalFrequency=600
*NTPServerIPA=192.168.200.XXX
*ExternalFrequency=18000
*TZOffset=5
*DaylightSaving=1
```

Default Database Contents

This section indicates the contents of the default database - sample.adm - that is included on the CD-ROM.

GX DEVICES

ID	I/F	IPA	EA	ENC Input port	DEC Output port	GXDIN Input port	Address		
							A	B	C
1	0	192.168.1.1	00:00:00:00:00:00	1 - 4	-	-	0	0	1
2	0	192.168.1.2	00:00:00:00:00:00	5 - 8	-	-	0	0	2
3	0	192.168.2.1	00:00:00:00:00:00	9 - 12	-	-	0	0	3
4	0	192.168.2.2	00:00:00:00:00:00	13 - 16	-	-	0	0	4
5	0	192.168.3.1	00:00:00:00:00:00	-	1 - 4	-	1	0	0
6	0	192.168.4.1	00:00:00:00:00:00	-	5 - 8	-	1	0	1

CAMERAS

ID	Logical #	Switch	Ports	Compensation	Bitrate	Model	OSD
1	1	Digital	1	Short	6.144	WV-CS854A	CAMERA1
2	2	Digital	2	Short	6.144	WV-CS854A	CAMERA2
3	3	Digital	3	Short	6.144	WV-CS854A	CAMERA3
4	4	Digital	4	Short	6.144	WV-CS854A	CAMERA4
5	5	Digital	5	Short	6.144	WV-CS854A	CAMERA5
6	6	Digital	6	Short	6.144	WV-CS854A	CAMERA6
7	7	Digital	7	Short	6.144	WV-CS854A	CAMERA7
8	8	Digital	8	Short	6.144	WV-CS854A	CAMERA8
9	9	Digital	9	Short	6.144	WV-CS854A	CAMERA9
10	10	Digital	10	Short	6.144	WV-CS854A	CAMERA10
11	11	Digital	11	Short	6.144	WV-CS854A	CAMERA11
12	12	Digital	12	Short	6.144	WV-CS854A	CAMERA12
13	13	Digital	13	Short	6.144	WV-CS854A	CAMERA13
14	14	Digital	14	Short	6.144	WV-CS854A	CAMERA14
15	15	Digital	15	Short	6.144	WV-CS854A	CAMERA15
16	16	Digital	16	Short	6.144	WV-CS854A	CAMERA16

CONTROLLERS

ID	Area	Priority	Boot File	Model	IPA	EA	Port
1	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	1
2	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	2
3	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	3
4	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	4
5	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	5
6	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	6
7	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	7
8	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	8
9	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	9
10	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	10
11	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	11
12	0	3	-	WV-CU350	127.0.0.1	00:00:00:00:00:00	12
13	0	3	-	RS232	127.0.0.1	00:00:00:00:00:00	1
14	0	3	-	RS232	127.0.0.1	00:00:00:00:00:00	2
15	0	3	-	RS232	127.0.0.1	00:00:00:00:00:00	3
16	0	3	keyether	WV-CU850	172.18.0.200	00:80:45:0D:D0:01	0

Note 1: Although actual model number is WV-CU360C, WV-CU350 should be entered to Model field.

Note 2: Actual MAC address that is indicated on a product should be entered to EA field.

MONITORS

ID	Area	Local	Switch	Port
1	0	1	Digital	1
2	0	2	Digital	2
3	0	3	Digital	3
4	0	4	Digital	4
5	0	5	Digital	5
6	0	6	Digital	6
7	0	7	Digital	7
8	0	8	Digital	8

OPERATORS

ID	Password	Priority	Timeout
100	100	100	00:00:00
955	955	3	00:00:00

OPERATING PROCEDURES (with WV-CU850)

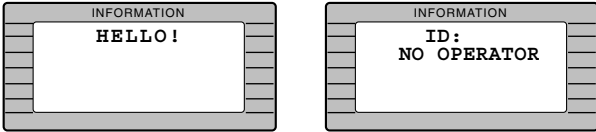
Log-in and Log-out

Before starting the following procedures, all system components must be turned on.

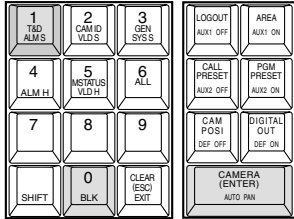
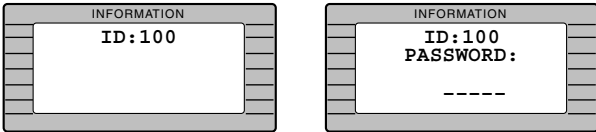
The following procedures apply when the WV-CU850 System Controller is connected to the system. Some of functions are not available when the WV-CU360C System Controller is connected.

■ Log-in

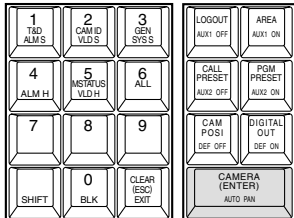
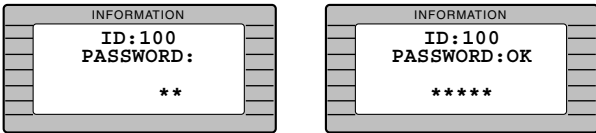
1. Turn on the power switches of all system components.
2. Press the **POWER ON/OFF** Switch located on the rear of the System Controller, to the ON position. The LINK indicator lights up and the following displays will appear on the LCD display of the system controller.



3. Select your registered operator ID number (up to 5 digits) by pressing the numeric keys, then press the **[CAMERA (ENTER)]** key. "PASSWORD" will appear on the LCD display of the controller.



4. Select your registered password (up to 5 digits) by pressing the numeric keys, then press the **[CAMERA (ENTER)]** key.



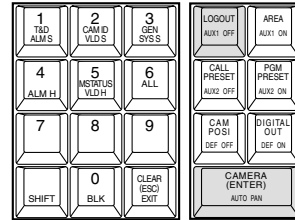
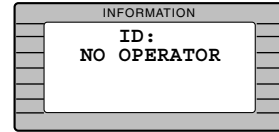
If operator ID and password are correct, "OK" will appear for 2 seconds on the LCD display.

Note: If an operator ID and password error have occurred, "NG" will appear for 2 seconds on the LCD display with a beep sound, then the Log-in procedure automatically returns to the start.

■ Log-out

This function is used when an operator is leaving the controller, or no longer requires access to the system.

1. Hold down the **[LOGOUT]** key and then press the **[CAMERA (ENTER)]** key to log out. "NO OPERATOR" is displayed on the LCD display of the controller.



2. Turn off the Power switch located on the rear of the controller.

Monitor and Camera Selection

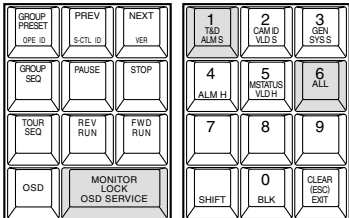
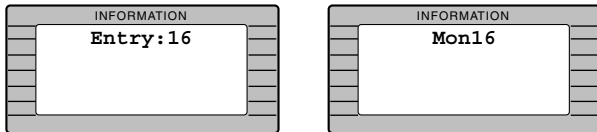
After log-in, the following operations are available for controlling the system.

The operation begins with selecting a monitor; then select a camera to be displayed on the active monitor screen.

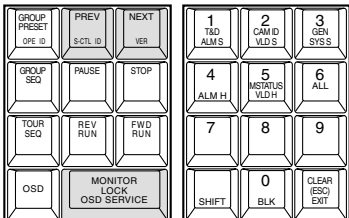
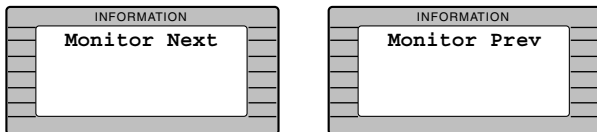
Monitor Selection

1. Select the desired monitor number by pressing the numeric keys, then press the **[MONITOR]** key to execute the selection.

The selected monitor number is now displayed on the MONITOR display of the controller.



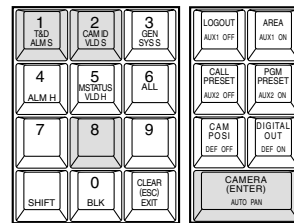
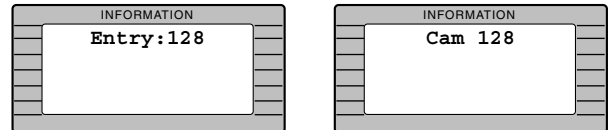
2. Pressing the **[NEXT]** key while holding down the **[MONITOR]** key will select the next higher monitor number, or pressing the **[PREV]** key while holding down the **[MONITOR]** key will select the next lower monitor number.



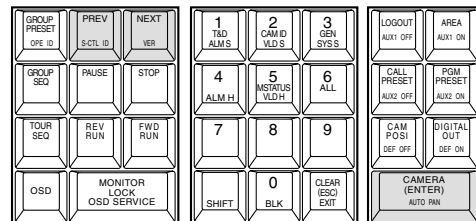
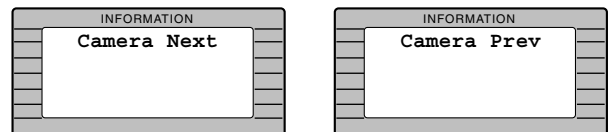
Note: The MONITOR BUSY indicator lights, if the monitor is selected by a higher priority operator. Control of the same monitor is denied to an operator with a lower priority.

Camera Selection

1. Select the desired monitor.
Refer to the Monitor Selection.
2. Select the desired camera number by pressing the numeric keys, then press the **[CAMERA (ENTER)]** key. The selected camera picture appears on the active monitor and the selected camera number is now displayed on the CAMERA display of the controller.



3. Pressing the **[NEXT]** key while holding down the **[CAMERA (ENTER)]** key will replace the currently selected camera with the next higher camera number, or pressing the **[PREV]** key while holding down the **[CAMERA (ENTER)]** key will replace the currently selected camera with the next lower camera number.



Note: The CAMERA BUSY indicator lights, if the camera is selected by a higher priority operator. Control of the same camera is denied to an operator with a lower priority.

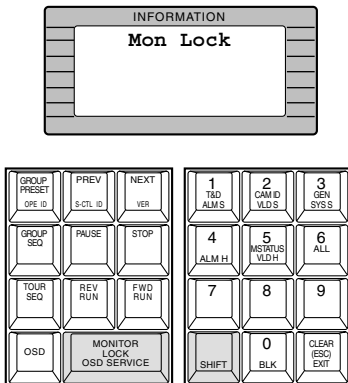
■ Priority Lock

This function is used to retain control of a monitor for an operator, even after that operator has selected another monitor.

Caution: This function will prevent operators with a lower priority from gaining control of a monitor.
However, higher priority operators may still gain control of that monitor.

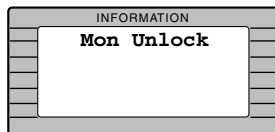
● Applying Priority Lock

1. Select the desired monitor to apply Priority Lock.
Refer to the Monitor Selection.
2. Pressing the **[MONITOR]** key while holding down the **[SHIFT]** key will toggle the Priority Lock mode on and off on the active monitor.
If the Priority Lock mode is selected, the monitor number with "L" sign is displayed on the active monitor and the MONITOR LOCK indicator on the controller is on.



● Releasing Priority Lock

1. Select the desired monitor to release Priority Lock.
Refer to the Monitor Selection.
2. Pressing the **[MONITOR]** key while holding down the **[SHIFT]** key will release the lock mode.
The monitor number is displayed normally on the active monitor and the MONITOR LOCK indicator on the controller is now off.



Display Setting for Controller

■ Adjustment of LCD Display

The following procedures let you adjust backlight and contrast of the controller's LCD display.

● Back Light Adjustment

Adjust the back light by turning the LCD BRIGHT control located on the rear of the controller.

Clockwise: increases the back light brightness

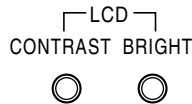
Counterclockwise: decreases the back light brightness

● Contrast Adjustment

Adjust the contrast of the characters displayed on the LCD display by turning the LCD CONTRAST control located on the rear of the controller.

Clockwise: increases the character contrast

Counterclockwise: decreases the character contrast



■ Adjustment of LED Display

The following procedure lets you adjust the brightness of the Monitor and Camera LED displays and LED indicators on the controller.

Adjust the brightness by turning the LED BRIGHT control located on the rear of the controller.

Clockwise: increases brightness

Counterclockwise: decreases brightness

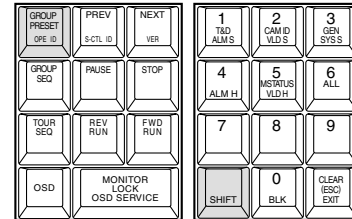
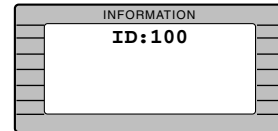


■ IDs Display Function

This controller has the following functions.

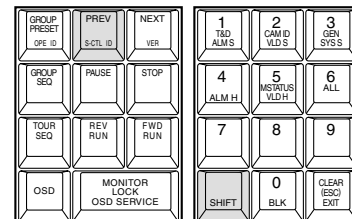
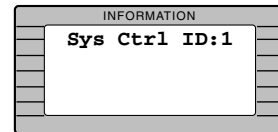
● Operator ID Display

Pressing the [GROUP PRESET] key while holding down the [SHIFT] key will display the Operator ID number on the LCD display.



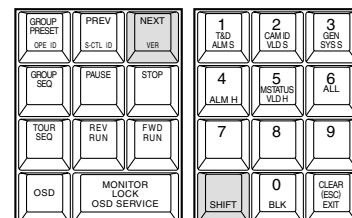
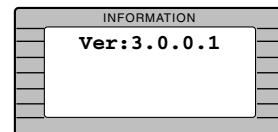
● Controller ID Display

Pressing the [PREV] key while holding down the [SHIFT] key will display the Controller ID number on the LCD display.



● System Version Display

Pressing the [NEXT] key while holding down the [SHIFT] key will display the system version number on the LCD display.



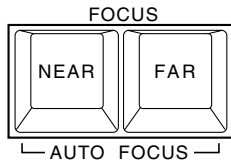
Controlling Camera Site Accessories

Controls for camera site accessories are located on the right side of the front panel of the System Controller. Included are Zoom Control, Focus Control, Iris Control, Preset and Pan/Tilt Controls. Normally, combination cameras equipped with the specific feature or a WV-RC100 or WV-RC150 Receiver are required to utilize these functions.

■ Lens Control

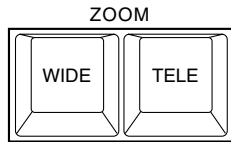
Note: Confirm that the specified lens, with power zoom/focus functions, is mounted on the camera. Also confirm that the Lens Selection (DC/VIDEO) on the camera is set to the DC position. Function capabilities vary between cameras. Referring to the operating instructions of each camera is recommended.

1. Select the desired monitor and camera. Refer to the Monitor Selection and Camera Selection.
2. Press the **[FOCUS NEAR/FAR]** keys while observing the monitor to adjust the lens focus to achieve a sharply focused picture.

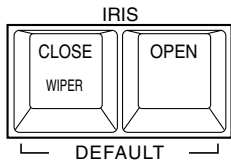


By pressing these keys at the same time, the lens focus is set automatically, if the specified camera with the auto focus feature is used.

3. Press the **[ZOOM TELE/WIDE]** keys while observing the monitor to adjust the lens zoom to achieve the desired picture. Press the **[TELE]** key to optically bring an object closer. Pressing the **[WIDE]** key has the reverse effect.



4. Press the **[IRIS CLOSE/OPEN]** keys to close/open the lens iris. Adjust the lens iris by using these keys to obtain the proper picture exposure.

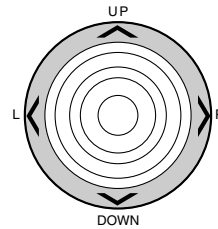


By pressing these keys at the same time, the lens iris is reset to the factory default setting.

■ Pan/Tilt Control

● Pan/Tilt Control (Manual Operation)

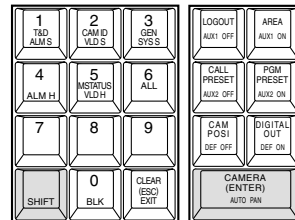
1. Select the desired monitor and camera. Refer to the Monitor Selection and Camera Selection.
2. Move the Joystick Controller to move the Pan/Tilt Head towards the desired direction. If the joystick is positioned in between UP and R, the Pan/Tilt Head moves diagonally towards Up and Right. Eight directions are available: Up / Down / Right / Left / Up-Right / Up-Left / Down-Right / Down-left.



● Pan/Tilt Control (Auto Panning)

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera. Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[CAMERA (ENTER)]** key while holding down the **[SHIFT]** key will activate the Auto Panning function of the selected camera.

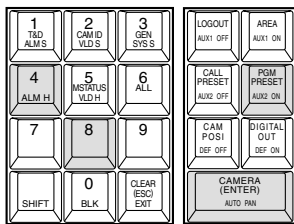
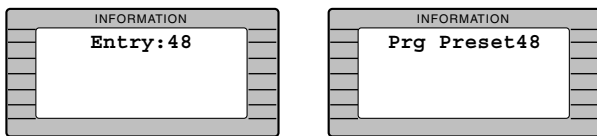


3. To cancel the auto panning function, move the Joystick Controller.

● Pan/Tilt Control (Program Preset Position)

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Move the camera to the position to be preset by moving the Joystick Controller and pressing the lens control keys.
3. Select the desired preset position number by pressing the numeric keys.
4. Holding down the **[PGM PRESET]** key, and then press the **[CAMERA (ENTER)]** key to save a preset position of the camera.



Notes:

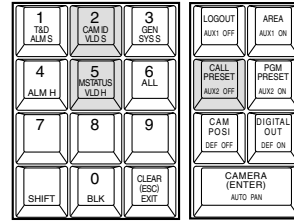
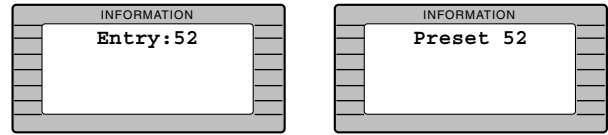
- If the position number entered has been stored previously, the old position will be overwritten by the new one.
- This function is disabled when the WV-CS600 Series or WV-CS650 Series Camera is connected to the Encoder.

● Pan/Tilt Control (Call Preset Position)

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Select the preset position number by pressing the numeric keys.

3. Press the **[CALL PRESET]** key to move to the preset position of the selected camera on the active monitor.



Note: To be able to use the above function, the preset position number must have been set for that camera.

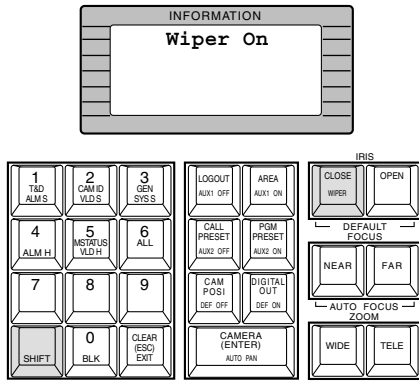
Receiver Control

Camera Housing Control

The following function is available only when the WV-RC100 or WV-RC150 Receivers are included in the system and the specified camera housing is installed.

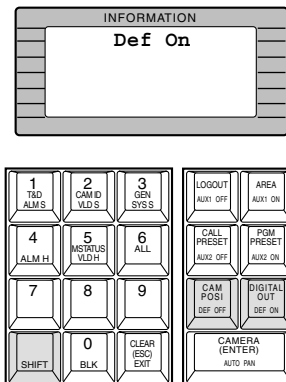
Wiper Control

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[IRIS CLOSE]** key while holding down the **[SHIFT]** key will turn on the Housing Wiper of the camera until the keys are released.



Defroster Control

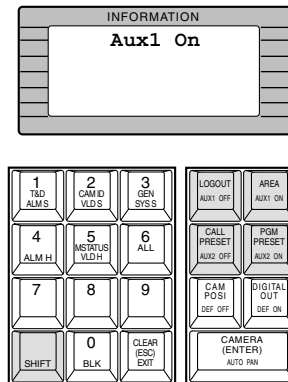
1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[DIGITAL OUT]** key while holding down the **[SHIFT]** key will turn on the housing defroster of the camera.
To turn off the defroster, pressing the **[CAM POS1]** key while holding down the **[SHIFT]** key.



Auxiliary Control

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

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[AREA]** key while holding down the **[SHIFT]** key will turn on the user's auxiliary switch 1 of the Receiver.
Pressing the **[LOG OUT]** key holding down the **[SHIFT]** key will turn off the user's auxiliary switch 1 of the Receiver.
3. Press the **[PGM PRESET]** key while holding down the **[SHIFT]** key will turn on the user's auxiliary switch 2 of the Receiver.
Pressing the **[CALL PRESET]** key while holding down the **[SHIFT]** key will turn off the user's auxiliary switch 2 of the Receiver.

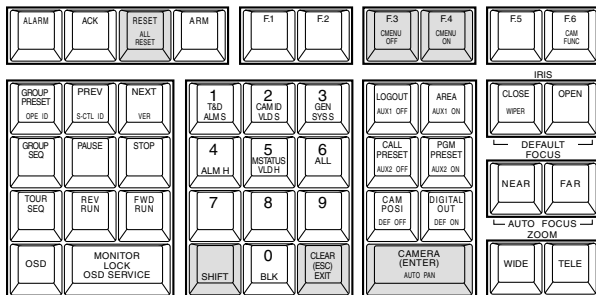
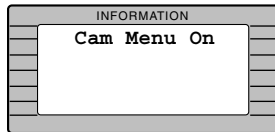


Camera Function Control

■ Camera Setup

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[F4]** key while holding down the **[SHIFT]** key will gain access to the Camera Setup Menu display on the active monitor.



3. Select the desired item in the menu by moving the Joystick Controller **UP** and **DOWN**, and then select the desired parameter (or mode) in the menu by moving the Joystick Controller **L** and **R**.
Press the **[CAMERA (ENTER)]** key to execute the currently highlighted selection and to enter a submenu of the Camera Setup Menu, or press the **[CLEAR (ESC)]** key to leave the currently selected menu and return to the previous page of the menu.
4. Press the **[RESET]** key in the menu to reset the parameter of a selected item to the factory default setting or enter the Special Camera Menu when the cursor is positioned on SPECIAL in the menu.
Pressing the **[RESET]** key while holding down the **[SHIFT]** key will restore all factory default settings.

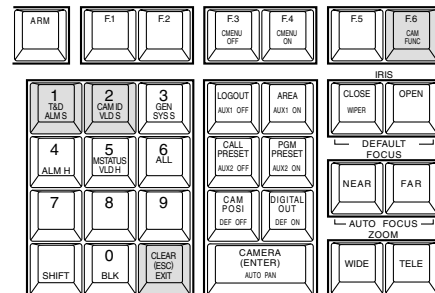
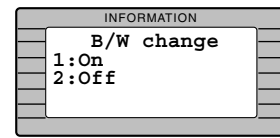
- Refer to the Operating Instructions of the selected camera for more details.
- Moving the joystick while holding down the **[SHIFT]** key will move the camera smoothly for presetting the position in the camera setup menu.

5. To close the Camera Setup Menu, press the **[F3]** key while holding down the **[SHIFT]** key.

■ Changing to Black and White Pictures

The following function is available only when specified cameras having a color-black and white switching feature are used.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Press the **[F6]** key two times.
"B/W Change" as shown in the figure will appear on the LCD display of the controller.



3. Press the **[1]** key to change the picture from color to black and white on the active monitor.
4. Press the **[2]** key to change black and white to color picture on the active monitor.
5. To exit from the mode, press the **[CLEAR (ESC)]** key.

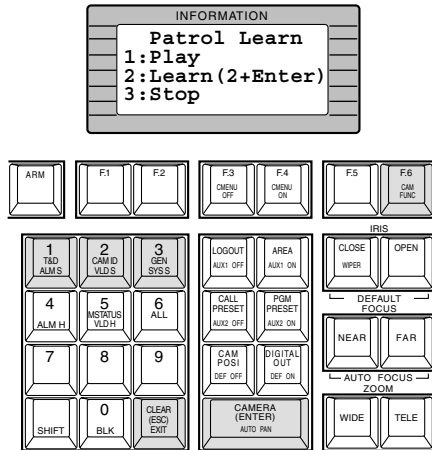
Note: When the black and white parameter is set AUTO in the camera setup menu, this function is disabled.

■ Patrol Learn and Play

The following function requires the use of cameras equipped with this specific feature.

A routine of manual operations can be stored for a specific time and later reproduced repetitively.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Press the **[F6]** key three times.
"Patrol Learn" as shown in the figure will appear on the LCD display of the controller.



To save the patrol sequence, follow the procedure shown below.

- ① Press the **[2]** key, then press the **[CAMERA (ENTER)]** key to start Patrol Learn.
- ② Operate the camera manually. Operations data (patrol sequence) is stored.
- ③ Press the **[3]** key to end the learning.

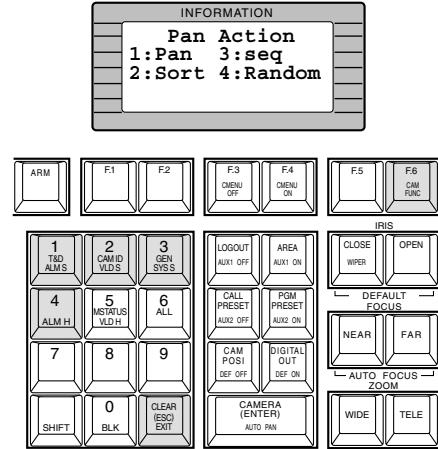
To reproduce the stored data, follow the procedure shown below.

- ① Press the **[1]** key to reproduce the stored Patrol function.
 - ② Press the **[3]** key to end the reproduction.
3. To exit from the mode, press the **[CLEAR (ESC)]** key.

■ Camera Panning Function

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Press the **[F6]** key four times.
"Pan Action" as shown in the figure will appear on the LCD display of the controller.



3. Press the assigned numeric key shown below to activate the panning function of the selected camera.

- 1:** Activates Auto Pan.
- 2:** Activates Sort Pan.
- 3:** Activates Sequence Pan.
- 4:** Activates Random Pan.

Notes:

- The AUTO MODE parameter previously set in the camera setup menu will be automatically replaced to the activated function parameter.
- Random Pan function is not currently supported.

4. To exit from the mode, press the **[CLEAR (ESC)]** key.

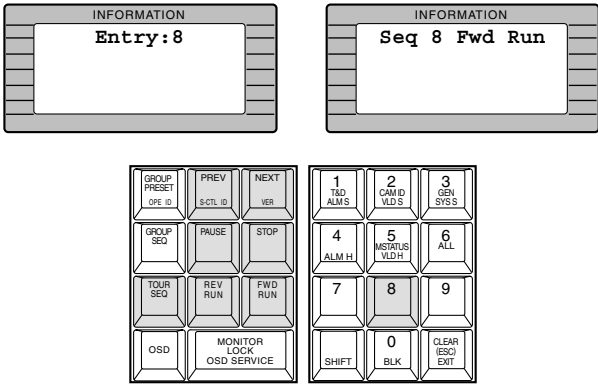
Running Sequence

■ Tour Sequence

The following functions are available only if a Tour Sequence has been previously established through the Administration Console. As described on the setup, any of the tours can be assigned to any of the monitors.

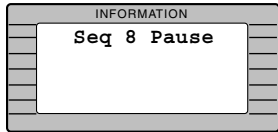
1. Select the desired monitor.
Refer to the Monitor Selection.
2. Select the desired Tour Sequence Number by pressing the numeric keys.
3. Pressing the **[FWD RUN]** key while holding down the **[TOUR SEQ]** key will run the tour sequence in forward direction on the active monitor, or pressing the **[REV RUN]** key while holding down the **[TOUR SEQ]** key will run the tour sequence in reverse direction on the active monitor.

The selected Tour Sequence Number (T8) with "R" sign (indicate running status) is displayed on the active monitor.



Note: By the factory default setting, pressing the **[TOUR SEQ]** key after numeric input will run the selected Tour Sequence forward.

4. Press the **[PAUSE]** key to pause a Tour Sequence that is being run on the active monitor.
The "P" sign (indicating the pause status) is displayed at the Tour Sequence Number on the active monitor.



5. Press the **[FWD RUN]** key to restart a Tour Sequence forward from the next step that was previously paused by pressing the PAUSE key.
6. Press the **[REV RUN]** key to restart a Tour Sequence backward from the next step that was previously paused by pressing the PAUSE key.

7. Press the **[NEXT]** key to move the sequence one frame to the next step (in forward or reverse run direction) from the step that was previously paused by pressing the PAUSE key.
8. Press the **[PREV]** key to move the sequence one frame to the previous step (in forward or reverse run direction) from the step that was previously paused by pressing the PAUSE key.
9. To return to Spot monitoring, press the **[STOP]** key to end a Tour Sequence that is being run on the active monitor.

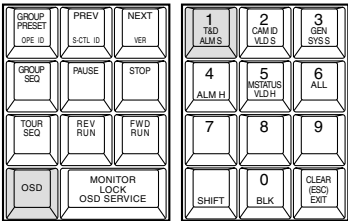
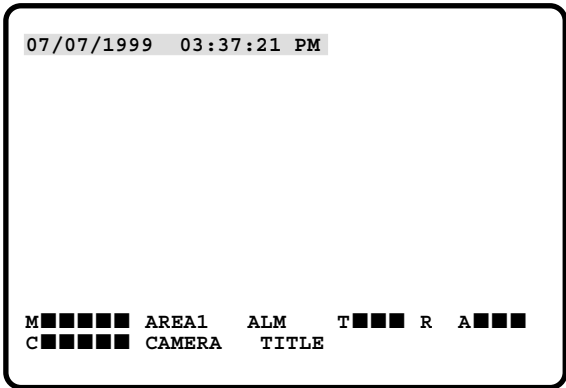
Monitor Display Control

■ On-Screen Display Control

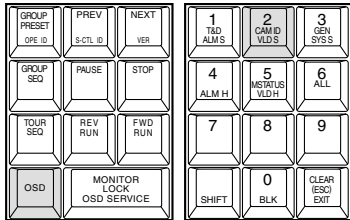
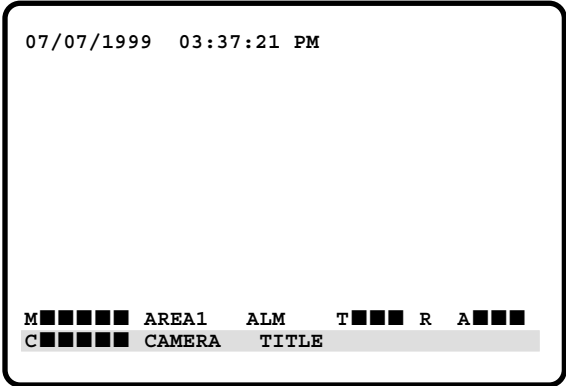
The procedure described below lets you determine the display, such as camera title, clock and status, on and off on the active monitor screen.

Note: The following functions are not available when the on-screen displays are compounded from the Character Board that is installed on the Camera Input Board. Confirm the setting in the Administration Console for details.

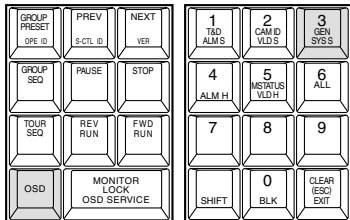
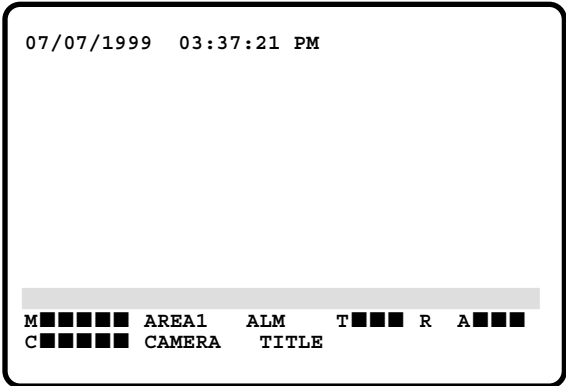
1. Select the desired monitor.
Refer to the Monitor Selection.
2. Pressing the **[1]** key while holding down the **[OSD]** key will toggle the clock (time and date) display on the active monitor on and off.



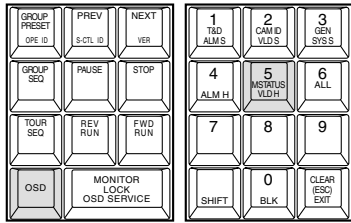
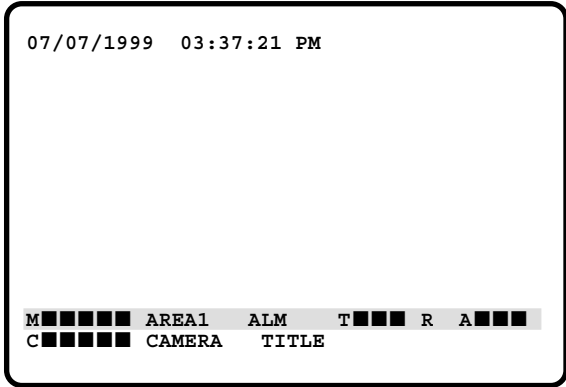
3. Pressing the **[2]** key while holding down the **[OSD]** key will toggle the camera number and title display on the active monitor on and off.



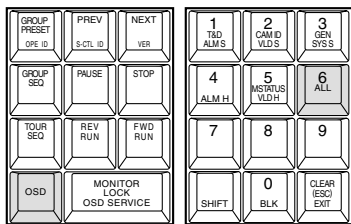
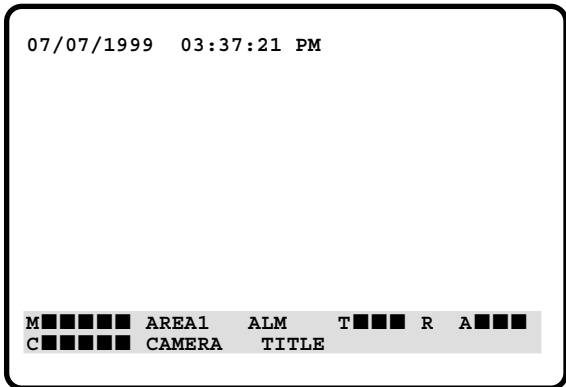
4. Pressing the **[3]** key while holding down the **[OSD]** key will toggle the general status display on the active monitor on and off.



- Pressing the **[5]** key while holding down the **[OSD]** key will toggle the monitor status display on the active monitor on and off.



- Pressing the **[6]** key while holding down the **[OSD]** key will toggle the display except clock (time and date) on the active monitor on and off.



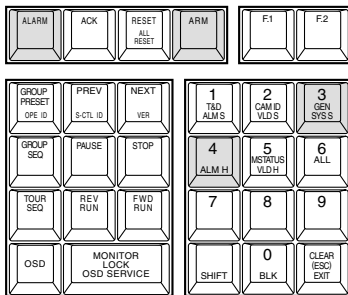
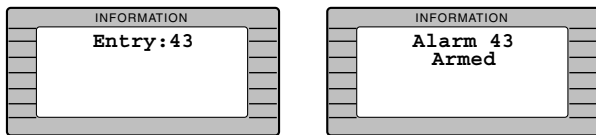
Alarm Control

When cameras and monitor are armed for alarm response with an alarm input, the camera pictures associated with that alarm input is displayed on the monitor when the alarm is received.

When an alarm is received, the ALARM indicator lights. The indicator remains lit until all alarms are cleared by pressing the RESET key.

Alarm Arming Control

1. Select an alarm number by pressing the numeric keys, followed by the **[ALARM]** key.
2. Pressing the **[ARM]** key repeatedly will arm or disarm cameras and monitor for alarm response with the selected alarm.
"Armed" or "Disarmed" will be displayed on the LCD display.



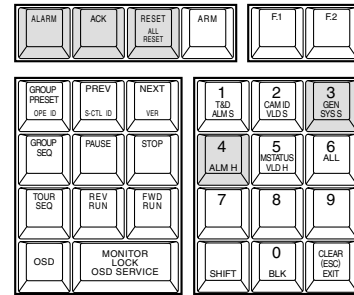
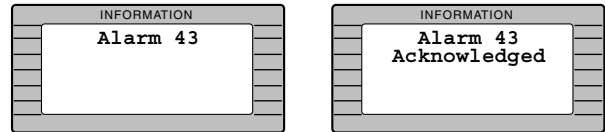
3. Pressing the **[NEXT]** key while holding down the **[ALARM]** key will select the next higher alarm number, or pressing the **[PREV]** key while holding down the **[ALARM]** key will select the next lower alarm number.
4. Pressing the **[ARM]** key repeatedly will arm or disarm cameras and monitor for alarm response with the selected alarm.
5. To exit from alarm selecting mode, press the **[CLEAR (ESC)]** key.

To Cancel Alarms

1. Select an activated alarm number that is displayed on the active monitor by pressing the numeric keys, followed by the **[ALARM]** key.
2. Select the alarm action number by pressing the numeric key, then press the **[ACK]** key to acknowledge the activated alarm manually.
The acknowledged alarm picture is displayed on the active monitor, and the ACK indicator on the controller is turned on.

Note: By the factory default setting, pressing only the **[ACK]** key will interpret it as the alarm action #0.

3. After acknowledging the alarm, press the **[RESET]** key to reset the alarm.
The ACK indicator will go off.



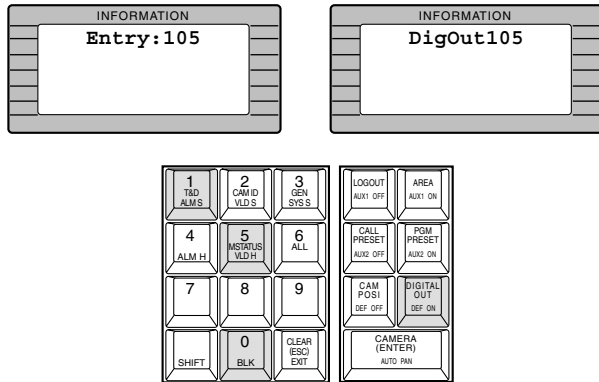
Note: All reset function is available without selecting the activated alarms. Pressing the **[RESET]** key while holding down the **[SHIFT]** key will cancel all currently activated alarms at once.

Other Functions

■ Digital Output Function

The following function is available only if Digital Outputs has been previously established through the Administration Console.

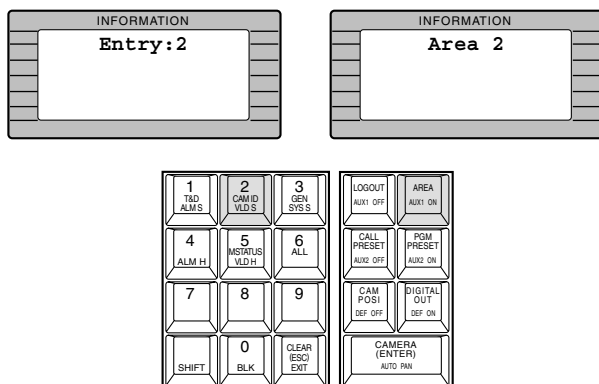
1. Select a Digital Output number by pressing the numeric keys.
2. Press the **[DIGITAL OUT]** key to produce a one shot pulse for activating an assigned event.



■ Area Control Function

The following function is available only if the monitors are previously assigned to the areas through the Administration Console.

1. Select an Area number by pressing the numeric keys.
2. Press the **[AREA]** key to apply all the controller's functions to the selected area.

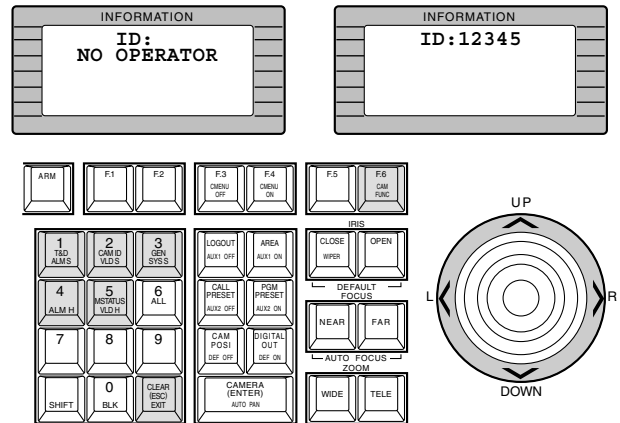


Note: Pressing the **[AREA]** key with no numeric input will display currently selected area number on the LCD display.

■ Joystick Calibration

The following procedure is available at startup after the "HELLO!" display on the LCD display of the controller or after logging out.

1. Select **[1][2][3][4][5]** by pressing the numeric keys, then press the **[F6]** key.



2. Move the Joystick to the position specified by the LCD display prompts and hold it, then press the **[CLEAR]** key.

Repeat this procedure.

The prompts on the LCD display will be replaced by pressing the **[CLEAR]** key as shown below.

Center (Press CLR)
 ↓
 Up (Press CLR)
 ↓
 Right (Press CLR)
 ↓
 Down (Press CLR)
 ↓
 Left (Press CLR)

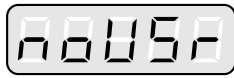
OPERATING PROCEDURES (with WV-CU360C)

Log-in and Log-out

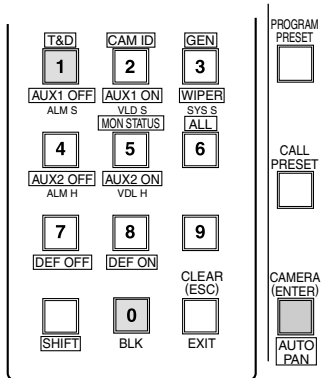
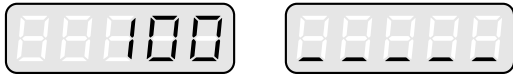
Before starting the following procedures, all system components must be turned on.
The following procedures apply when the WV-CU360C System Controller is connected to the system.

Log-in

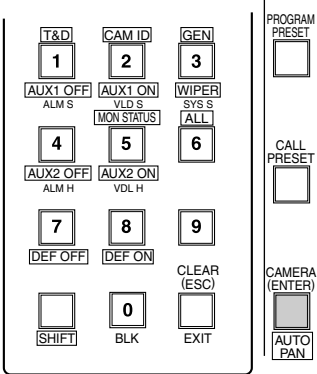
1. Turn on the power switches of all system components.
2. Turn on the power of the WV-CU360C System Controller by connecting the AC adapter to the AC outlet.
The LINK indicator lights up and "NO USER" will appear on the LED display of the system controller.



3. Select your registered operator ID number (up to 5 digits) by pressing the numeric buttons, then press the **[CAMERA (ENTER)]** button.
The underline display now appears on the LED display of the controller.

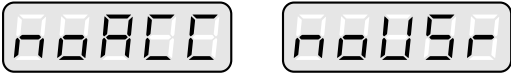


4. Select your registered Password (up to 5 digits) by pressing the numeric buttons, then press the **[CAMERA (ENTER)]** button.



If operator ID and password are correct, "READY" will appear on the LED display.

Note: If an operator ID and password error have occurred, the PROHIBITED indicator on the controller will light up and "NO ACCESS" will blink on the LED display for about 3 seconds. Then the Log-in procedure automatically returns to the start.

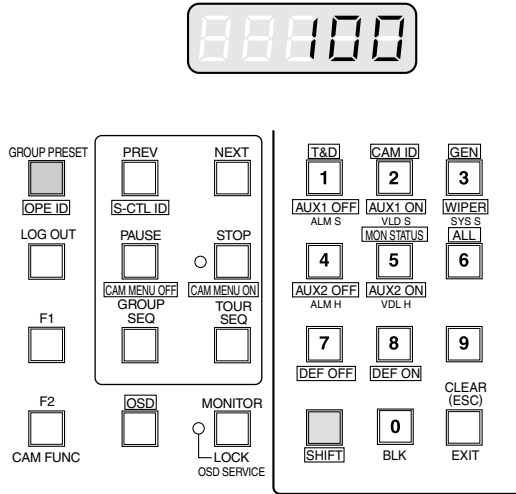


IDs Display Function

This controller has the following functions.

● Operator ID Display

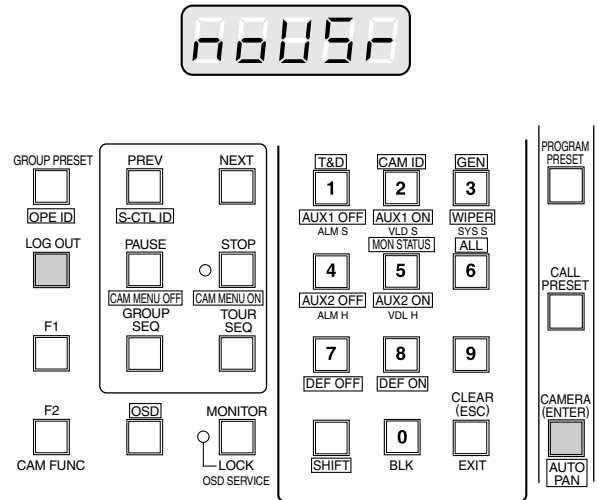
Pressing the **[GROUP PRESET]** button while holding down the **[SHIFT]** button will display the Operator ID on the LED display.



■ Log-out

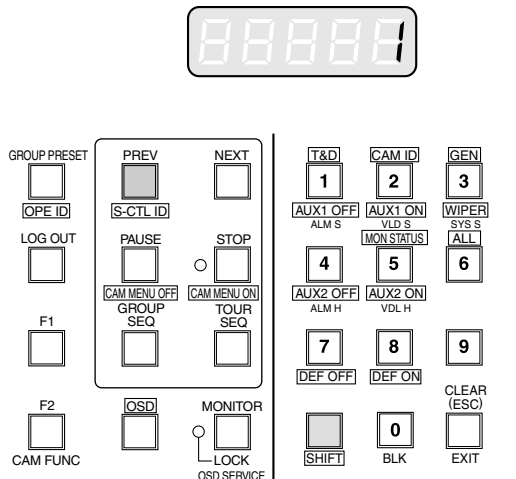
This function is used when an operator is leaving the controller, or no longer requires access to the system.

1. Hold down the **[LOGOUT]** button and then press the **[CAMERA (ENTER)]** button to log out. "NO USER" is displayed on the LED display of the controller.



● Controller ID Display

Pressing the **[PREV]** button while holding down the **[SHIFT]** button will display the Controller ID on the LED display.



Monitor and Camera Selection

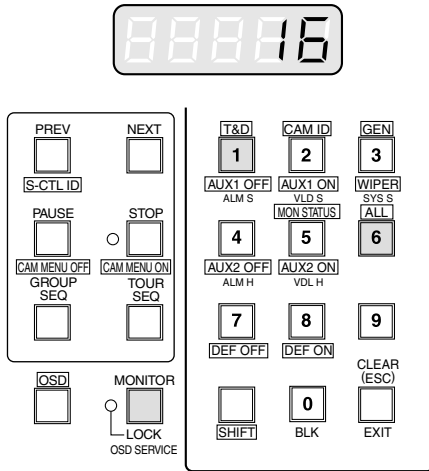
After log-in, the following operations are available for controlling the system.

The operation begins with selecting a monitor; then select a camera to be displayed on the active monitor screen.

Monitor Selection

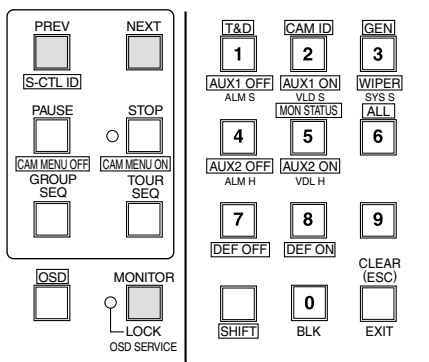
1. Select the desired monitor number by pressing the numeric buttons, then press the **[MONITOR]** button to execute the selection.

The MONITOR indicator on the controller is turned on and the selected monitor number is now displayed on the LED display of the controller.



If the selected monitor number is not valid or partitioned, the PROHIBITED indicator is on and the number on the LED display will blink for about 3 seconds. Return to step 1 and select a new monitor number.

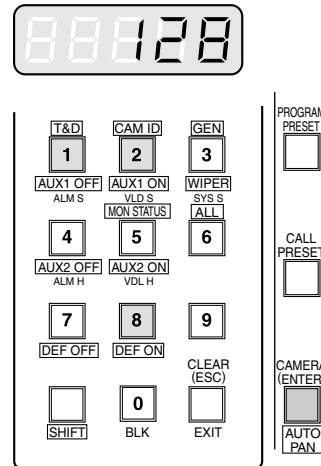
2. Pressing the **[NEXT]** button while holding down the **[MONITOR]** button will select the next higher monitor number, or pressing the **[PREV]** button while holding down the **[MONITOR]** button will select the next lower monitor number.



Note: The BUSY indicator lights, if the monitor is selected by a higher priority operator. Control of the same monitor is denied to an operator with a lower priority.

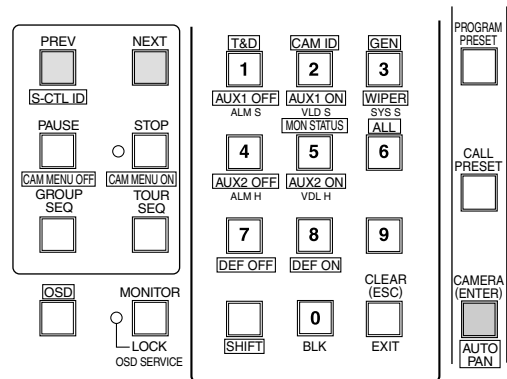
Camera Selection

1. Select the desired monitor.
Refer to the Monitor Selection.
2. Select the desired camera number by pressing the numeric buttons, then press the **[CAMERA (ENTER)]** button.
The selected camera picture appears on the currently selected monitor and the selected camera number is now displayed on the LED display of the controller.



If the selected camera number is not valid or partitioned, the PROHIBITED indicator is on and the number on the LED display will blink for about 3 seconds. Return to step 2 and select a new camera number.

3. Pressing the **[NEXT]** button while holding down the **[CAMERA (ENTER)]** button will replace the currently selected camera with the next higher camera number, or pressing the **[PREV]** button while holding down the **[CAMERA (ENTER)]** button will replace the currently selected camera with the next lower camera number.



Note: The BUSY indicator lights, if the camera is selected by a higher priority operator. Control of the same camera is denied to an operator with a lower priority.

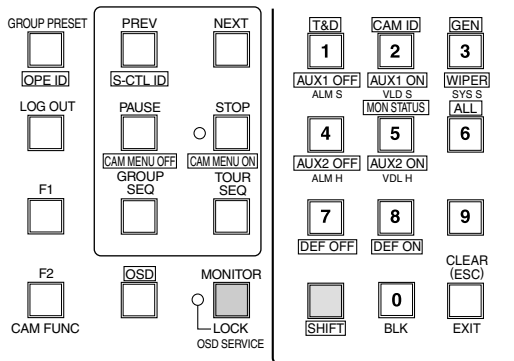
■ Priority Lock

This function is used to retain control of a monitor for an operator, even after that operator has selected another monitor.

Caution: This function will prevent operators with a lower priority from gaining control of a monitor. However, higher priority operators may still gain control of that monitor.

● Applying Priority Lock

1. Select the desired monitor to apply Priority Lock.
Refer to the Monitor Selection.
2. Pressing the **[MONITOR]** button while holding down the **[SHIFT]** button will toggle the Priority Lock mode on and off on the active monitor.
If the Priority Lock mode is selected, the monitor number with "L" sign is displayed on the active monitor and the MONITOR LOCK indicator on the controller is on.



● Releasing Priority Lock

1. Select the desired monitor to release Priority Lock.
Refer to the Monitor Selection.
2. Pressing the **[MONITOR]** button while holding down the **[SHIFT]** button will release the lock mode.
The monitor number is displayed normally on the active monitor and the MONITOR LOCK indicator on the controller is now off.

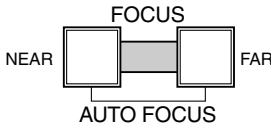
Controlling Camera Site Accessories

Controls for camera site accessories are located on the right side of the front panel of the System Controller. Included are Zoom Control, Focus Control, Iris Control, Preset and Pan/Tilt Controls. Normally, combination cameras equipped with the specific feature or a WV-RC100 or WV-RC150 Receiver are required to utilize these functions.

■ Lens Control

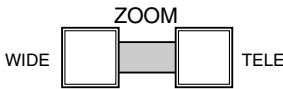
Note: Confirm that the specified lens, with power zoom/focus functions, is mounted on the camera. Also confirm that the Lens Selection (DC/VIDEO) on the camera is set to the DC position. Function capabilities vary between cameras. Referring to the operating instructions of each camera is recommended.

1. Select the desired monitor and camera. Refer to the Monitor Selection and Camera Selection.
2. Press the **[FOCUS NEAR/FAR]** buttons while observing the monitor to adjust the lens focus to achieve a sharply focused picture.

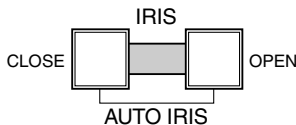


By pressing these buttons at the same time, the lens focus is set automatically, if the specified camera with the auto focus feature is used.

3. Press the **[ZOOM TELE/WIDE]** buttons while observing the monitor to adjust the lens zoom to achieve the desired picture. Press the **[TELE]** button to optically bring an object closer. Pressing the **[WIDE]** button has the reverse effect.



4. Press the **[IRIS CLOSE/OPEN]** buttons to close/open the lens iris. Adjust the lens iris by using these buttons to obtain the proper picture exposure.

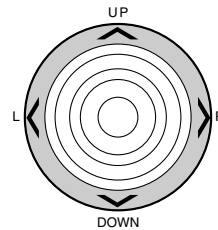


By pressing these buttons at the same time, the lens iris is reset to the factory default setting.

■ Pan/Tilt Control

● Pan/Tilt Control (Manual Operation)

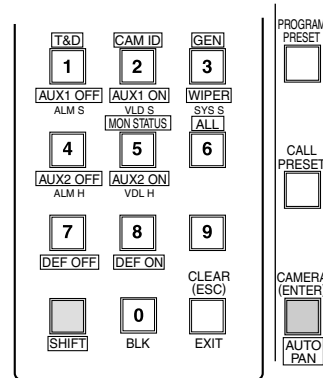
1. Select the desired monitor and camera. Refer to the Monitor Selection and Camera Selection.
2. Move the Joystick Controller to move the Pan/Tilt Head towards the desired direction. If the joystick is positioned in between UP and R, the Pan/Tilt Head moves diagonally towards Up and Right. Eight directions are available: Up / Down / Right / Left / Up-Right / Up-Left / Down-Right / Down-left.



● Pan/Tilt Control (Auto Panning)

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera. Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[CAMERA (ENTER)]** button while holding down the **[SHIFT]** button will activate the Auto Panning function of the selected camera.

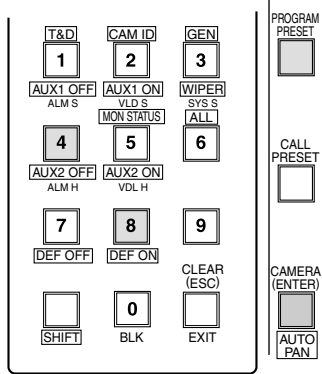
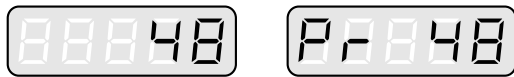


3. To cancel the auto panning function, move the Joystick Controller.

● Pan/Tilt Control (Program Preset Position)

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Move the camera to the position to be preset by moving the Joystick Controller and pressing the lens control buttons.
3. Select the desired preset position number by pressing the numeric buttons.
4. Holding down the **[PROGRAM PRESET]** button, and then press the **[CAMERA (ENTER)]** button to save a preset position of the selected camera.



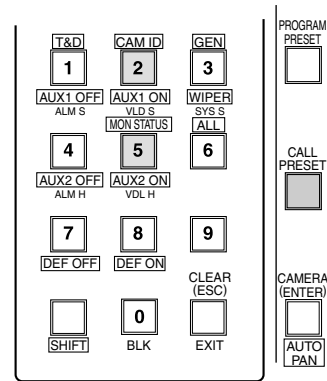
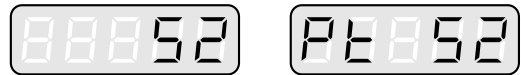
Notes:

- If the position number entered has been stored previously, the old position will be overwritten by the new one.
- This function is disabled when the WV-CS600 Series or WV-CS650 Series Camera is connected to the Encoder.

● Pan/Tilt Control (Call Preset Position)

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Select the preset position number by pressing the numeric buttons.
3. Press the **[CALL PRESET]** button to move to the preset position of the selected camera on the active monitor.



Note: To be able to use the above function, the preset position number must have been set for that camera.

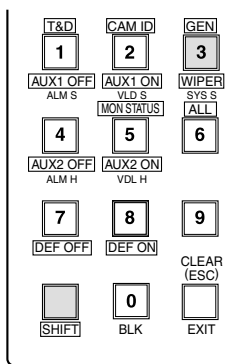
■ Receiver Control

● Camera Housing Control

The following function is available only when the WV-RC100 or WV-RC150 Receivers are included in the system and the specified camera housing is installed.

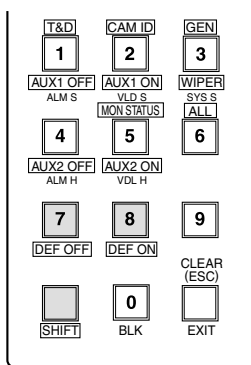
• Wiper Control

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[3]** button while holding down the **[SHIFT]** button will turn on the Housing Wiper of the camera until buttons are released.



• Defroster Control

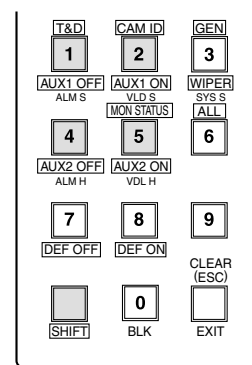
1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[8]** button while holding down the **[SHIFT]** button will turn on the housing defroster of the camera.
To turn off the defroster, pressing the **[7]** button while holding down the **[SHIFT]** button.



● Auxiliary Control

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

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[2]** button while holding down the **[SHIFT]** button will turn on the user's auxiliary switch 1 of the Receiver.
Pressing the **[1]** button holding down the **[SHIFT]** button will turn off the user's auxiliary switch 1 of the Receiver.
3. Press the **[5]** button while holding down the **[SHIFT]** button will turn on the user's auxiliary switch 2 of the Receiver.
Pressing the **[4]** button while holding down the **[SHIFT]** button will turn off the user's auxiliary switch 2 of the Receiver.

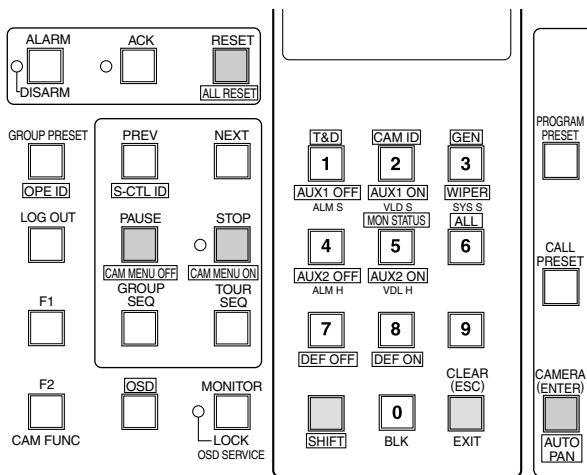


Camera Function Control

■ Camera Setup

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Pressing the **[STOP]** button while holding down the **[SHIFT]** button will open the Camera Setup Menu on the active monitor.
The STOP indicator will light.

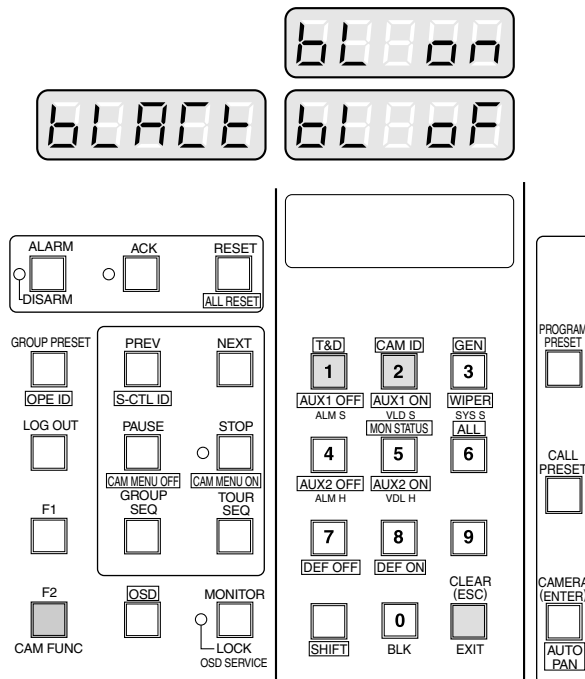


3. Select the desired item in the menu by moving the Joystick Controller **UP** and **DOWN**, and then select the desired parameter (or mode) in the menu by moving the Joystick Controller **L** and **R**.
Press the **[CAMERA (ENTER)]** button to execute the currently highlighted selection and to enter a submenu of the Camera Setup Menu, or press the **[CLEAR (ESC)]** button to leave from the currently selected menu and return to the previous page of the menu.
4. Press the **[RESET]** button in the menu to reset the parameter of a selected item to the factory default setting or enter the Special Camera Menu when the cursor is positioned on SPECIAL in the menu.
Pressing the **[RESET]** button while holding down the **[SHIFT]** button will restore all factory default settings.
 - Refer to the Operating Instructions of the selected camera for more details.
 - Moving the joystick while holding down the **[SHIFT]** button will move the camera smoothly for presetting the position in the camera setup menu.
5. To close the Camera Setup Menu, press the **[PAUSE]** button while holding down the **[SHIFT]** button.
The STOP indicator will go off.

■ Changing to Black and White Pictures

The following function is available only when specified cameras having a color-black and white switching feature are used.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Press the **[F2]** button two times.
"BLACT" as shown in the figure will appear on the LED display of the controller.



3. Press the **[1]** button to change the picture from color to black and white on the active monitor.
"BL ON" appears on the LED display to indicate the selected mode.
4. Press the **[2]** button to change black and white to color picture on the active monitor.
"BL OF" appears on the LED display to indicate the selected mode.
5. To exit from the mode, press the **[CLEAR (ESC)]** button.

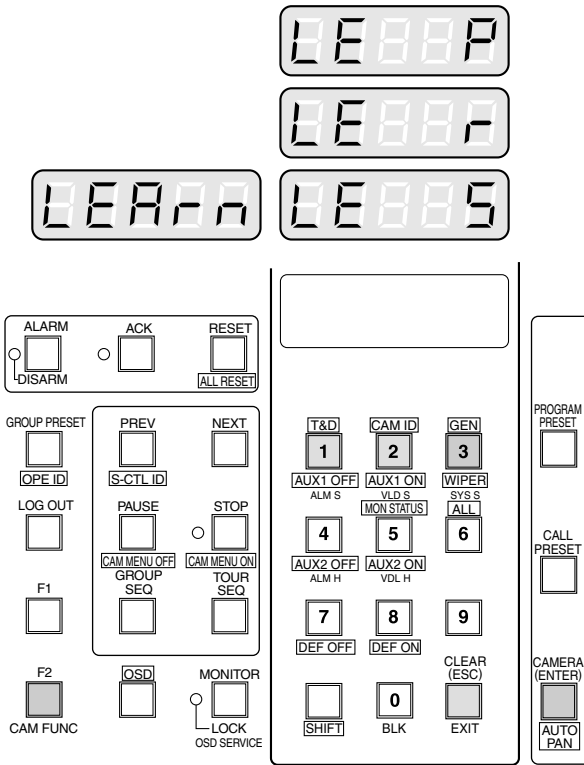
Note: When the black and white parameter is set AUTO in the camera setup menu, this function is disabled.

■ Patrol Learn and Play

The following function requires the use of cameras equipped with this specific feature.

A routine of manual operations can be stored for a specific time and later reproduced repetitively.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Press the **[F2]** button three times.
"LEARN" as shown in the figure will appear on the LED display of the controller.



To save the patrol sequence, follow the procedure shown below.

- ① Press the **[2]** button, then press the **[CAMERA (ENTER)]** button to start Patrol Learn.
"LE R" appears on the LED display to indicate the selected mode.
- ② Operate the camera manually. Operations data (patrol sequence) is stored.
- ③ Press the **[3]** button to end the learning.
"LE S" appears on the LED display to indicate the selected mode.

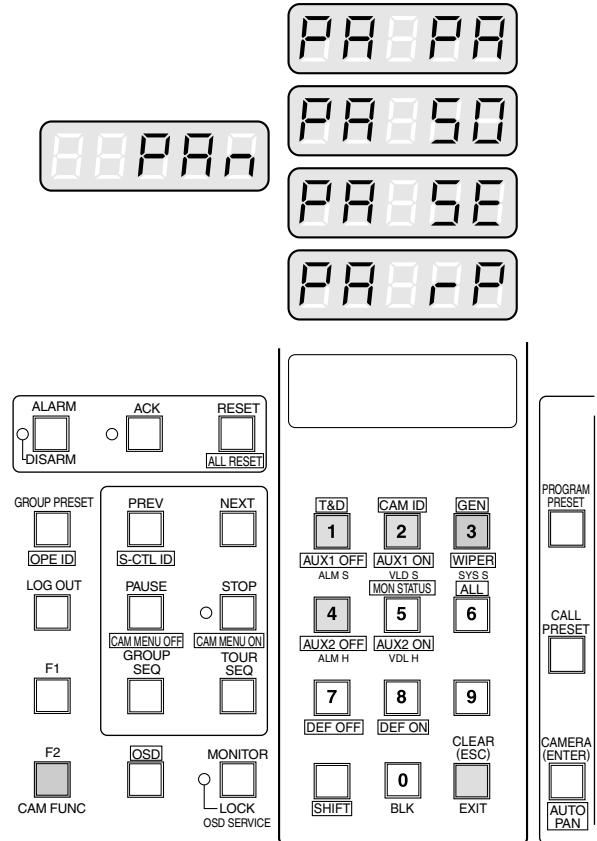
To reproduce the stored data, follow the procedure shown below.

- ① Press the **[1]** button to reproduce the stored Patrol function.
"LE P" appears on the LED display to indicate the selected mode.
 - ② Press the **[3]** button to end the reproduction.
3. To exit from the mode, press the **[CLEAR (ESC)]** button.

■ Camera Panning Function

The following function requires the use of cameras equipped with this specific feature.

1. Select the desired monitor and camera.
Refer to the Monitor Selection and Camera Selection.
2. Press the **[F2]** button four times.
"PAN" as shown in the figure will appear on the LED display of the controller.



3. Press the assigned numeric button shown below to activate the panning function of the selected camera. The LED display indicates the selected mode as follows.

- 1:** Activates Auto Pan "PA PA".
- 2:** Activates Sort Pan "PA SO".
- 3:** Activates Sequence Pan "PA SE".
- 4:** Activates Random Pan "PA RP".

Notes:

- The AUTO MODE parameter previously set in the camera setup menu will be automatically replaced to the activated function parameter.
- Random Pan function is not currently supported.

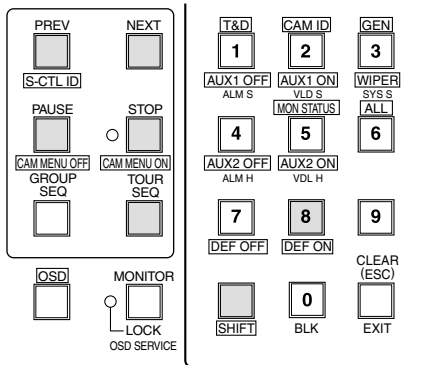
4. To exit from the mode, press the **[CLEAR (ESC)]** button.

Running Sequence

■ Tour Sequence

The following functions are available only if a Tour Sequence has been previously established through the Administration Console. As described on the setup, any of the tours can be assigned to any of the monitors.

1. Select the desired monitor.
Refer to the Monitor Selection.
2. Select the desired Tour Sequence Number by pressing the numeric buttons.
3. Pressing the **[TOUR SEQ]** button will run the tour sequence in forward direction on the active monitor.
The selected Tour Sequence Number (T8) with "R" sign (indicate running status) is displayed on the active monitor.



4. Press the **[PAUSE]** button to pause a Tour Sequence that is being run on the active monitor.
The "P" sign (indicating the pause status) is displayed at the Tour Sequence Number on the active monitor, and a camera number currently selected is displayed on the LED display.
5. Press the **[TOUR SEQ]** button to restart a Tour Sequence forward from the next step that was previously paused by pressing the PAUSE button.
6. Press the **[TOUR SEQ]** button while holding down the **[SHIFT]** button to restart a Tour Sequence backward from the next step that was previously paused by pressing the PAUSE key.
7. Press the **[NEXT]** button to move the sequence one frame to the next step (in forward or reverse run direction) from the step that was previously paused by pressing the PAUSE button.

8. Press the **[PREV]** button to move the sequence one frame to the previous step (in forward or reverse run direction) from the step that was previously paused by pressing the PAUSE button.
9. To return to Spot monitoring, press the **[STOP]** button to end a Tour Sequence that is being run on the active monitor.

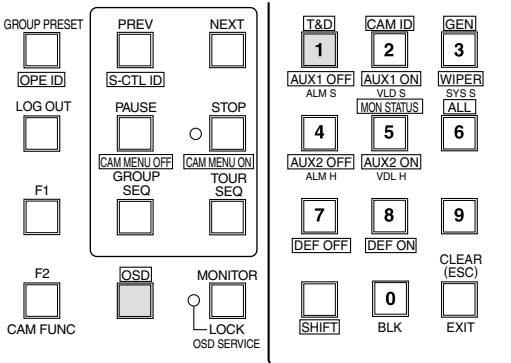
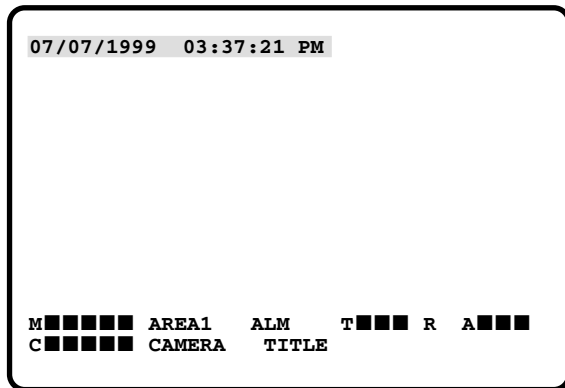
Monitor Display Control

■ On-Screen Display Control

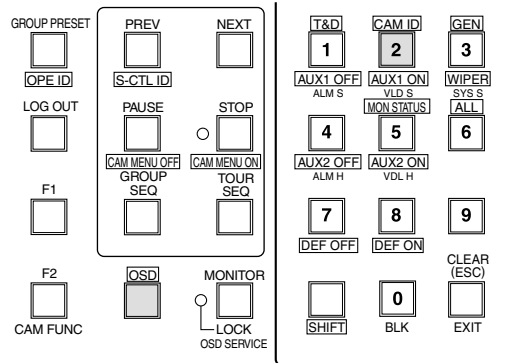
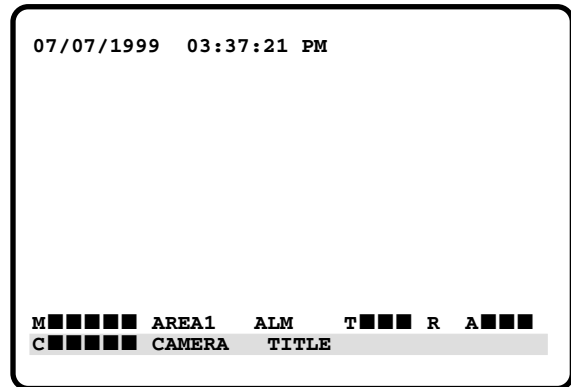
The procedure described below lets you determine the display, such as camera title, clock and status, on and off on the active monitor screen.

Note: The following functions are not available when the on-screen displays are compounded from the Character Board that is installed on the Camera Input Board. Confirm the setting in the Administration Console for details.

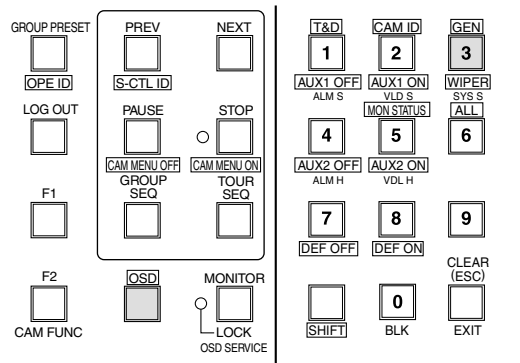
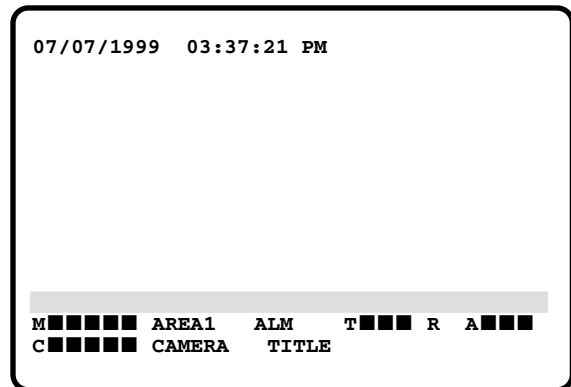
1. Select the desired monitor.
Refer to the Monitor Selection.
2. Pressing the [1] button while holding down the [OSD] button will toggle the clock (time and date) display on the active monitor on and off.



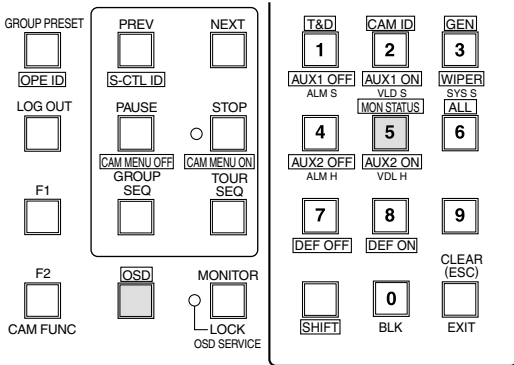
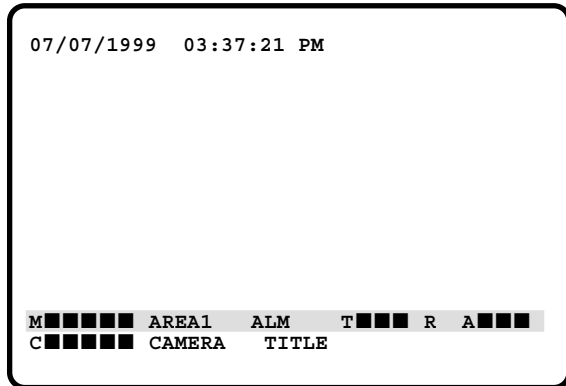
3. Pressing the [2] button while holding down the [OSD] button will toggle the camera title display on the active monitor on and off.



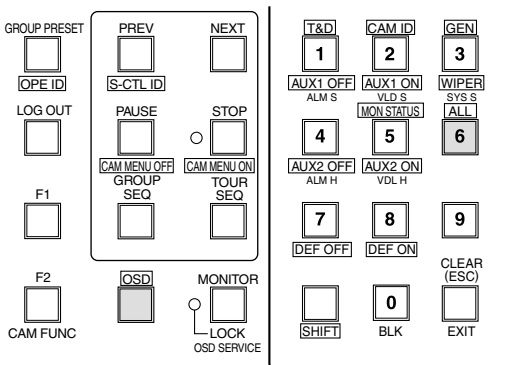
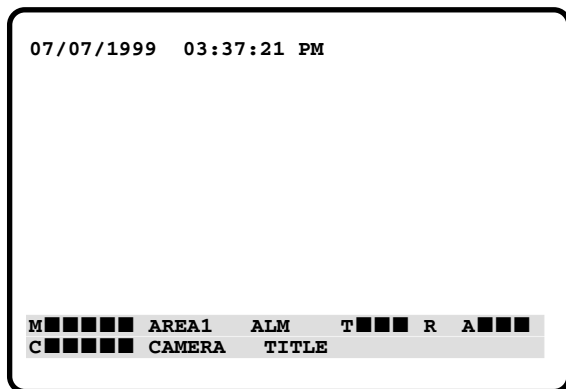
4. Pressing the [3] button while holding down the [OSD] button will toggle the general status display on the active monitor on and off.



- Pressing the **[5]** button while holding down the **[OSD]** button will toggle the monitor status display on the active monitor on and off.



- Pressing the **[6]** button while holding down the **[OSD]** button will toggle the display except clock (time and date) on the active monitor on and off.



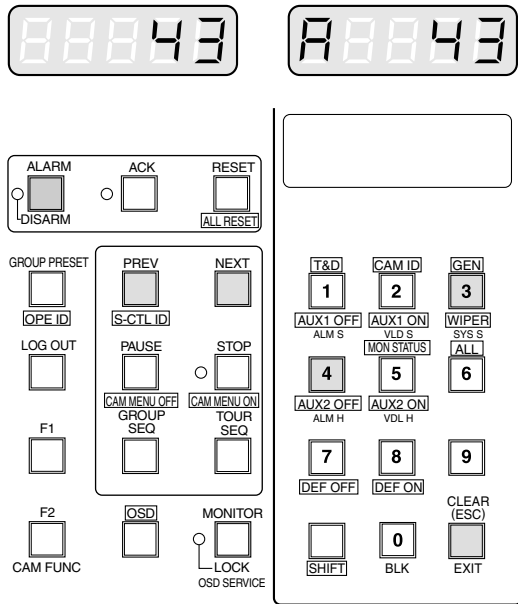
Alarm Control

When cameras and monitor are armed for alarm response with an alarm inputs, the camera pictures associated with that alarm input is displayed on the monitor when the alarm is received.

When an alarm is received, the ALARM indicator lights. The indicator remains lit until all alarms are cleared by pressing the RESET button.

Alarm Arming Control

1. Select an alarm number by pressing the numeric buttons, followed by the **[ALARM]** button.



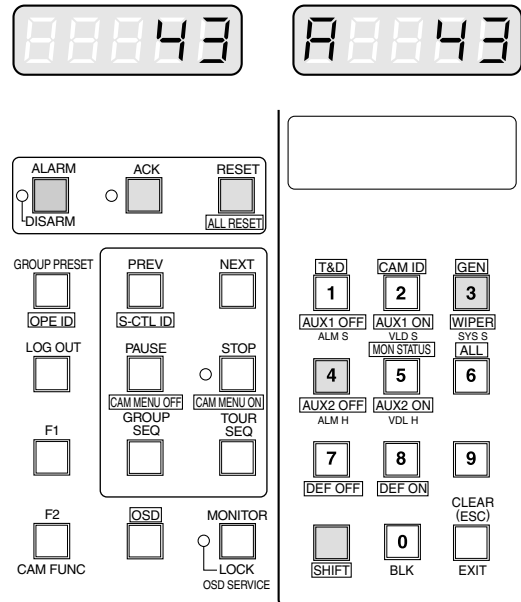
2. Pressing the **[ALARM]** button repeatedly will arm or disarm cameras and monitor for alarm response with the selected alarm.
The DISARM indicator will light on the controller when the alarm disarm mode is selected.
3. Pressing the **[NEXT]** button while holding down the **[ALARM]** button will select the next higher alarm number, or pressing the **[PREV]** button while holding down the **[ALARM]** button will select the next lower alarm number.
4. Pressing the **[ALARM]** button repeatedly will arm or disarm cameras and monitor for alarm response with the selected alarm.
5. To exit from alarm selecting mode, press the **[CLEAR (ESC)]** button.

To Cancel Alarms

1. Select an activated alarm number that is displayed on the active monitor by pressing the numeric buttons, followed by the **[ALARM]** button.
2. Select the alarm action number by pressing the numeric button, then press the **[ACK]** button to acknowledge the activated alarm manually.
The acknowledged alarm picture is displayed on the active monitor, and the ACK indicator on the controller is turned on.

Note: By the factory default setting, pressing only the **[ACK]** button will interpret it as the alarm action #0.

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



Note: All reset function is available without selecting the activated alarms. Pressing the **[RESET]** button while holding down the **[SHIFT]** button will cancel all currently activated alarms at once.

TROUBLESHOOTING

Troubleshooting

Before asking for technical support, please check the following symptoms and their possible causes and solutions. If the solutions below do not solve the problem, or the symptom is not listed below, contact your installer or sales representative.

Power Related Failure

Symptom	Possible cause / Possible solution	Reference page
The power cord insulation is damaged.	<p>The power cord, connectors, or power plug are damaged.</p> <p>If you continue to use it, a fire or an electric shock may occur.</p> <p>Unplug the power plug immediately, and refer servicing of the plug to qualified service personnel.</p>	
The power cord, connector, or power plug are hot-damaged.		
The power cord gets warm or hot if bent or pulled during use.		
The power is not supplied.	<p>Is the power cord connected correctly?</p> <p>Is the power plug firmly plugged into an outlet?</p> <p>Insert the power plug firm into an outlet.</p>	

CPU-Related Problems

Symptom	Possible cause / Possible solution	Reference page
CPU is not in Active state.	<p>In case of standard system (no redundant CPU), check the redundant CPU selector. It must be in NO position.</p> <p>In case of redundant CPU, check the cable between CPU parallel port and CPU Switch Unit and make sure that it is properly connected.</p>	10
Monitor video display is not stable	<p>In case of redundant CPU system, check whether both CPU units are in Active state. If this is the case, reboot the CPU Switch Unit. If the problem is still there, call technical supports.</p>	10
OSD time and date format is incorrect	<p>Check the time and date format in the SYS.INI file using the administration tool.</p>	20, 21
OSD time and date shows 1999 1 1	<p>The built-in battery needs to be replaced. Consult your dealer for servicing.</p>	

System Controller-Related Problems

Symptom	Possible cause / Possible solution	Reference page
<p>CU850 controller fails to start. LCD shows: "Connecting to Main CPU..."</p>	<p>Check the network connection between the CPU unit and CU850 controller. Check the controller database from the administration tool and make sure it has the correct boot file name. Check the controller database and make sure it has the correct controller Ethernet address.</p>	<p>reference [1] 9</p>
<p>CU360C controller fails to display "No User" while power is on.</p>	<p>Check the RS485 connection between the WV-CU360C and CPU unit. Check the controller database from the administration tool and make sure it has the proper RS485 port number assigned.</p>	<p>reference [1] 9</p>

Encoder and Decoder-Related problems

Symptom	Possible cause / Possible solution	Reference page
<p>The encoder or decoder does not start up normally</p>	<p>Check whether the rotary switch setting matches the encoder or decoder database setting.</p> <p>Be sure that encoder or decoder is in the main CPU mode.</p>	<p>reference [2] 11, 12, 13</p>

Specifications

Power Supply:	120 V AC 60 Hz
Power Consumption:	98 W
Controllable Encoders:	256 Encoders
Controllable Decoders:	64 Decoders
System Controller Ports:	
Ethernet:	10Base-T/100Base-TX, 8-conductor modular jack (x1); maximum 64 controllers (*)
RS-485:	6-conductor modular jack (x12); maximum 12 controllers (*)
Ethernet Ports:	10Base-T/100Base-TX 8-conductor modular jack for Encoder and Decoder control(1 port); other (1 port)
RS-232C Port:	9-pin D-sub connector (x3)
Ambient Operating Temperature:	-10 °C - +50 °C (14 °F - 122 °F)
Ambient Operating Humidity:	Less than 90 %
Dimensions:	16-15/16" (W) x 5-3/16" (H) x 13-3/4" (D) 430 (W) x 132 (H) x 350 (D) mm
Weight:	16 kg (35 lbs)

(*) The total number of system controllers connected via RS-485 and Ethernet is limited to 64.

Weight and dimensions indicated are approximate.
Specifications are subject to change without notice.

Standard Accessories

CD-ROM	1
Installation Guide	1

The following is for installation:

Power Cord	1
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