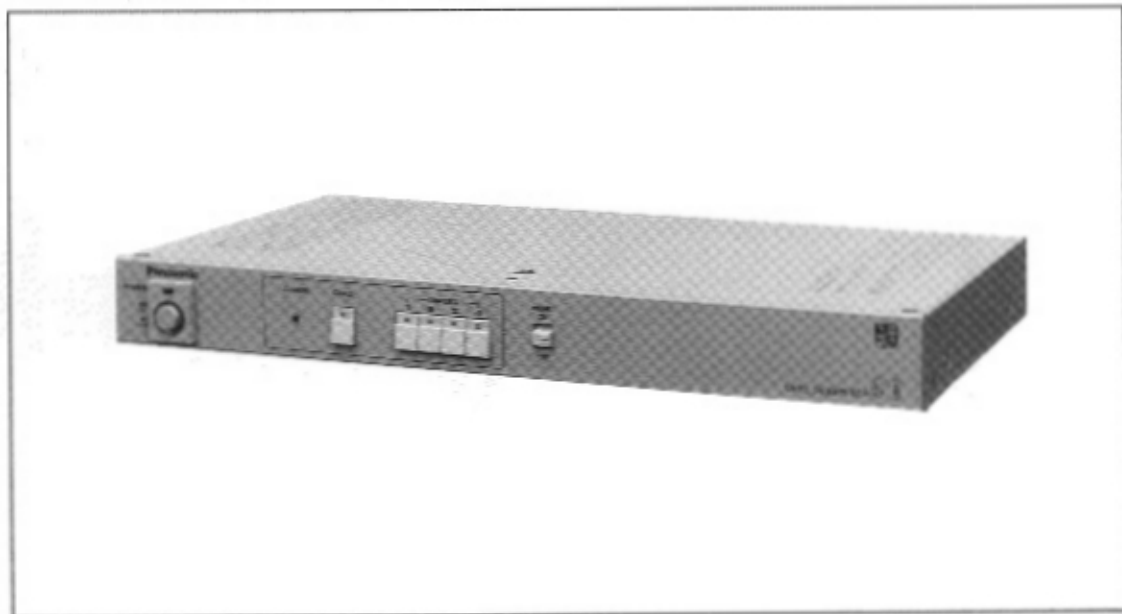


# Operating Instructions

Quad Unit  
WJ-410



**Panasonic®**

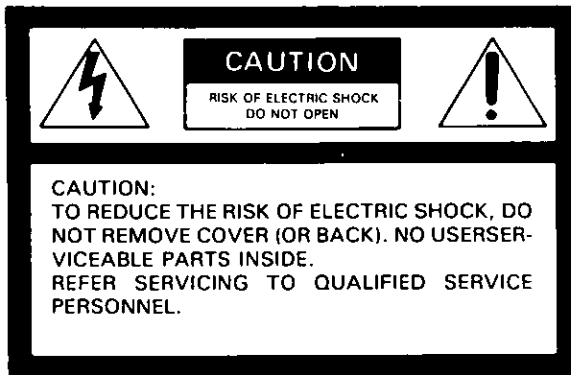
Before attempting to connect or operate this product, please read these instructions completely.

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**CAUTION:**

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



SA 1965

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



SA 1966

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

For U.S.A

**Warning:**

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

For CANADA

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

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

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

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

**WARNING:**

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## PREFACE

The Panasonic Quad Unit WJ-410 is ideal for CCTV applications where multiple surveillance cameras are required.

Most of 2 : 1 interlace black and white cameras can be compatible with the WJ-410. Up to four cameras may be connected to the system, and if desired the monitor screen can be divided into 4 windows for simultaneous display of the four different images.

Simple front panel switch operation allows quick selection between Quad and Single Camera display modes.

Additionally, the built-in character generator allows alphanumeric display in each of the four windows of up to 8 characters and symbols for easy identification of camera location.

Standard features also include a image freeze function in the Quad mode, alarm function and remote control capability.

## FEATURES

### 1. Compatible with Most 2 : 1 Interlace cameras

Advanced digital processing technology allows connection of most 2 : 1 interlace cameras available today without the requirement for synchronization of four video inputs.

The system may be added to existing CCTV systems and makes displays in black and white.

### 2. Alphanumeric Character Generator

Title insertion of up to 8 characters in each of four windows is possible. This promotes easy identification of the separate camera locations.

### 3. Freeze Frame

Any window display may be instantly frozen while in the Quad mode for detail study if irregularities. The window title and "FREEZE" will appear intermittently in the window.

### 4. Alarm with Built-in Buzzer

Equipped with an alarm function, this system can be combined with alarm sensors, intercoms and switches as well as with time-lapse VTRs through the alarm output and reset signal connectors. Upon receiving an alarm signal, a full sized picture of the site is displayed and "ALARM" and the window title will appear intermittently in the picture.

Automatic Reset time is adjustable between 1 and 60 sec. at one sec. interval.

Alarm Output Signal is adjustable between 1 and 30 sec. at one sec. interval.

### 5. Remote Control

By connecting the Remote Control Connector (RS-232C) with the personal computer, the remote control for the Quad mode, camera channel selection, Alarm buzzer setting and Automatic reset time setting are available.

### 6. Sync. Output

Provided with a connector for Sync. Output signal (SYNC OUT), this system enables external synchronization of other equipment.

### 7. Gen-lock Input Connector

A dedicated Gen-lock Connector makes possible external synchronization through the use of VS (Video Signal).

### 8. Two kinds of Video Output Connectors

This system offers two kinds of video output connectors :

#### (a) VIDEO OUT :

Quad or full-size single picture can be selected with the front panel switch.

#### (b) VTR (QUAD) OUT :

A Quad picture is always displayed, regardless of the setting of the front panel switch.

### 9. Quad Picture Borderline

A white borderline can be inserted in the Quad pictures.

### 10. Split

The Picture-in-picture is available.

### 11. Title Back-up

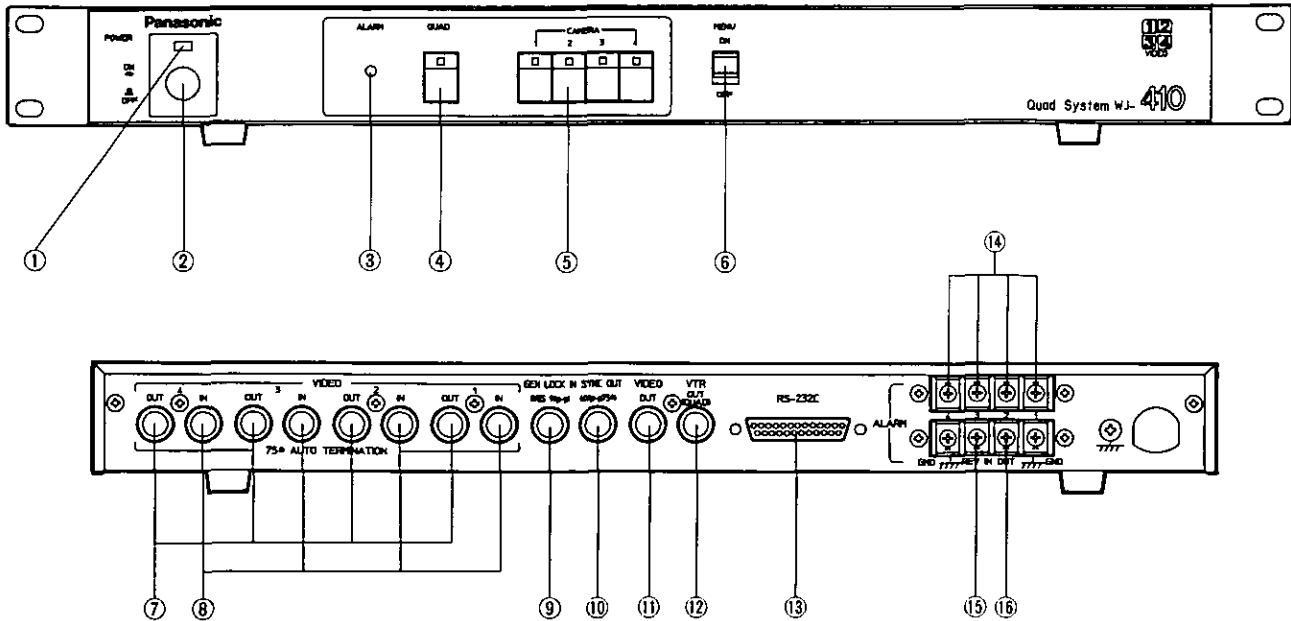
A back-up memory inside maintains preset Title character information up to 10 years.

## PRECAUTIONS

- Do not block the ventilation slots.
- Do not expose the quad unit to water or moisture.
- Do not operate this unit if it becomes wet. Do take immediate action if ever the quad unit does become wet. Turn power off and refer servicing to qualified service personnel. Moisture can damage this unit and also create the damage of electric shock.

- Do not attempt to disassemble the quad unit. To prevent electric shock, do not remove screws or cover. There are no user-serviceable parts inside. Refer servicing to qualified service personnel.
- Use this unit under conditions where temperature are within 14°F - 122°F (−10°C - +50°C) and humidity is below 90%.

# MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



## 1. Power Indicator

## 2. Power Switch (POWER ON/OFF)

By pressing this switch, this unit turns on and Power Indicator (1) lights up.

## 3. Alarm Indicator (ALARM)

This indicator lights in red when the alarm input signal is supplied to the Alarm Input Terminals (14).

## 4. Quad Switch (QUAD)

By turning on this switch, the Quad Picture mode is selected.

Note :

When a picture is selected from the Single → Quad → Single Picture mode, the channel of the first Single mode is displayed.

## In the Alarm mode :

By pressing this switch, the former picture mode is recovered.

## In the Menu On mode :

By pressing this switch, the Character Setting menu and Function Setting menu are changed by turns.

## 5. Camera Selection Switches (CAMERA, 1/2/3/4)

These switches are used to choose the video signal or move the cursor on the setup menu.

## In the Menu Off mode :

In 4 (Quad) picture mode, the selection of the frozen picture is available.

The LED of the selected channel will blink.

In the 1 (Single) picture mode, the desired picture can be displayed by these switches.

The LED of the selected channel will light.

## In the Menu On mode :

These switches are used to move the cursor as shown in the following.

| Menu On/Off Switch (6) | Quad Switch (4)   | [ 1 ]             | [ 2 ]             | [ 3 ]       | [ 4 ]         |
|------------------------|-------------------|-------------------|-------------------|-------------|---------------|
| OFF                    | QUAD              | Freeze 1          | Freeze 2          | Freeze 3    | Freeze 4      |
|                        | SINGLE            | Video 1           | Video 2           | Video 3     | Video 4       |
| ON                     | Function Setting  | Shift Down        | Shift Up          | Not used    | On/Off Switch |
|                        | Character Setting | Character Forward | Character Reverse | Cursor Left | Cursor Right  |

#### 6. Menu On/Off Switch

This switch is used to select the Menu On/Off mode. Set this switch to the ON position to display the Setup menus (Character / Function Setting Menu).

#### 7. Video Output Connectors (VIDEO OUT, 1/2/3/4)

The video input signals connected to the Video Input Connectors (8) are looped through to these connectors.

#### 8. Video Input Connectors (VIDEO IN, 1/2/3/4)

A composite video signal should be supplied to these connectors of 1 to 4.

##### Notes :

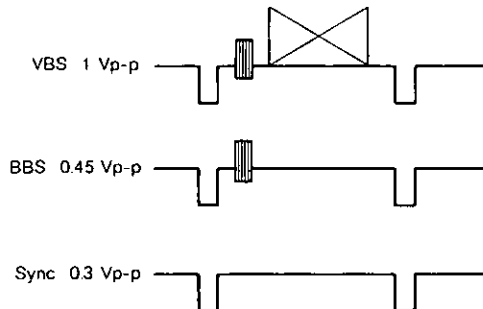
1. If the input video signals do not meet with the USA B/W standard video signal, this unit can not be synchronized.
2. If the input signal at the Video Input is very jittery, as in the case of the VTR playback picture, the WJ-410 can not be synchronized.

#### 9. Gen-lock Input Connector (GEN LOCK IN)

An USA standard B/W composite video signal is supplied from other systems (camera, another WJ-410 SEG etc.) in order to synchronize this unit.

##### Notes :

1. If the input signal at the Gen-lock is very jittery, such as in the case of the VTR playback picture, the WJ-410 can not be synchronized.
2. The signal that can be input to this connector is shown in the following.



#### 10. Sync. Output Connector (SYNC OUT)

A 4Vp-p/75 ohms of composite Sync. signal is obtained at this connector in order to synchronize other cameras or a camera drive unit such as WV-PS11A, WV-PS104B etc.

#### 11. Video Output Connector (VIDEO OUT)

The video signal selected by the Camera Selection Switches (5), the Quad Switch (4) or the Remote Control is output from this connector.

#### 12. VTR Output Connector (VTR OUT (QUAD))

The video signal (1Vp-p/75 ohms) of the Quad Picture mode is provided at this connector regardless of operation of the Quad Switch (4).

#### 13. Remote Control Connector (RC-232C)

The remote control of this unit is available by connecting this connector with the personal computer. 25-pin, D-sub (Receptacle Assemblies)

#### 14. Alarm Input Terminals (ALARM, 1/2/3/4)

By connecting the alarm input signal to these terminals, the display is changed as the following.

The video signal from the Video Output Connector is :

- In the Quad Picture mode :  
The single alarmed picture is displayed with the "ALARM" message.
- In the Single Picture mode :  
The "ALARM" message is blinked.

The video signal from the VTR Output Connector is :

The "ALARM" message is blinked on the alarmed picture of Quad pictures.

The alarm is triggered by connecting (shorting) these terminals to the ground.

When the terminal 1 is shorted to the ground, the picture-1 is provided to the Video Output Connectors (7) together with "ALARM" message alternating with the preset title.

In the Quad Picture mode, the "ALARM" message and preset title will be alternately displayed in the window for which an alarm was triggered.

##### Caution :

The power source for these terminals should be less than DC 24 V.

#### 15. Recover Input Terminal (ALARM, REV IN)

When this terminal is connected (shorted) to the ground, the alarm mode is reset and the picture being watched from the Video Output Connectors (11) will be seen again.

If a quad picture was shown, this will be shown again, and if a single picture was shown, the same picture will be shown again.

When the WJ-410 is connected to a time lapse VTR, connect this terminal and the Recover Output of the time lapse VTR in order to reset the alarm mode from the time lapse VTR.

##### Caution :

The power source for these terminals should be less than DC 24 V.

##### Note :

To correctly activate this function, these terminals must be set to max.0.2V or less by the time lapse VTR.

#### 16. Alarm Output Terminal (ALARM, OUT)

This terminal supplies the alarm output signal (Open Collector circuit) for setting the time lapse VTR to the alarm mode, sounding a buzzer when the Alarm Input Terminals (14) are shorted to the ground.

##### Note :

To sound a buzzer, select the "ALM BUZZER ON" of the Function Setting menu.

# CONNECTIONS

## Caution :

Keep the Power On/Off Switch turned off while making the connection.

## SYSTEM 1

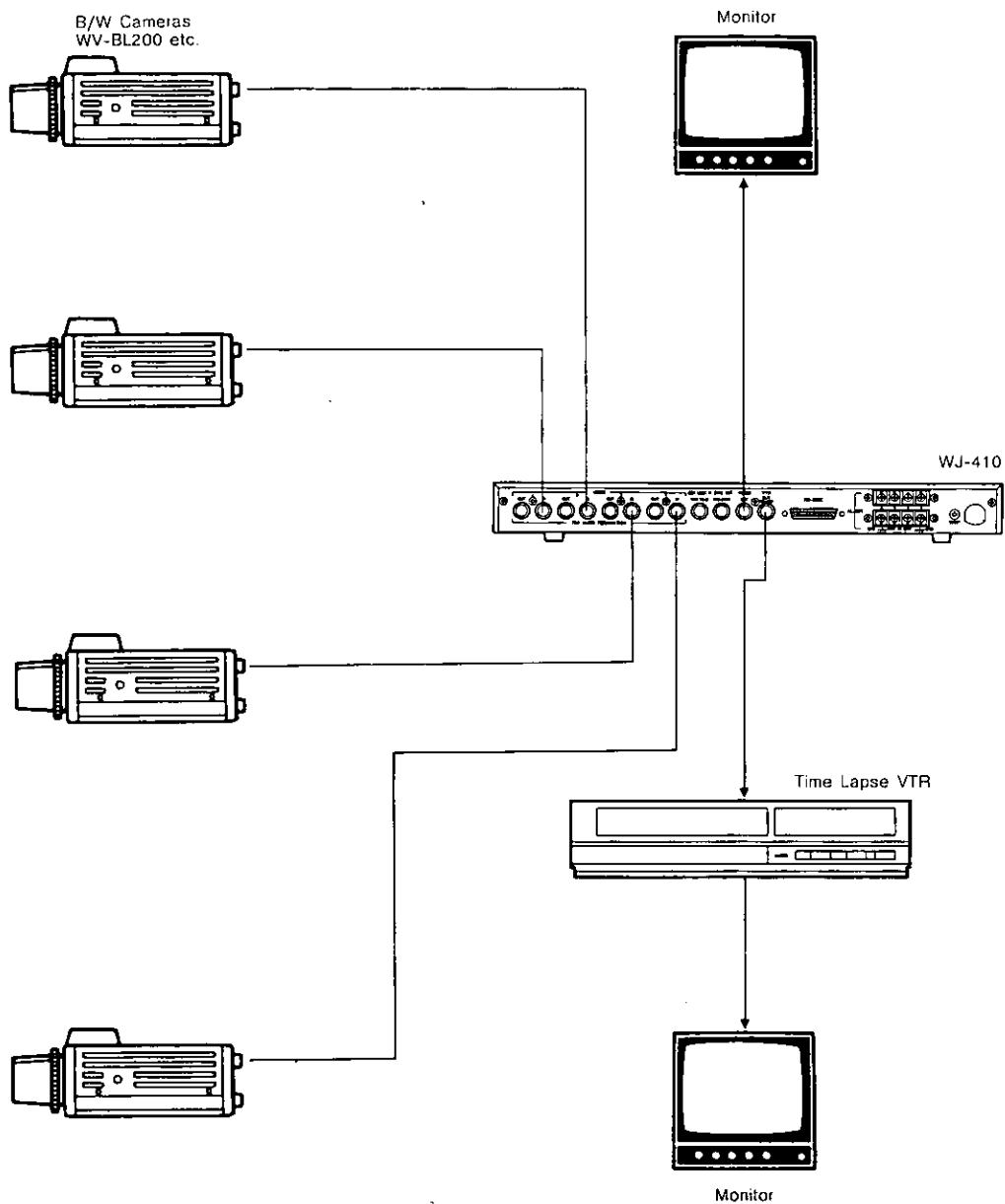
The input video signals for this unit are not synchronized.

### Notes :

- (1) When the Quad Switch (4) or Camera Selection Switch (5) is operated, the picture on the video monitor may roll briefly at the time of switching.
- (2) The video signal to be recorded by the VTR should be supplied from the VTR (QUAD) Output Connector of this unit and NOT from the Video Output Connector on this unit, unless servo control disturbances for the VTR are allowed when switching the Quad Switch (4) or Camera Selection Switches (5).

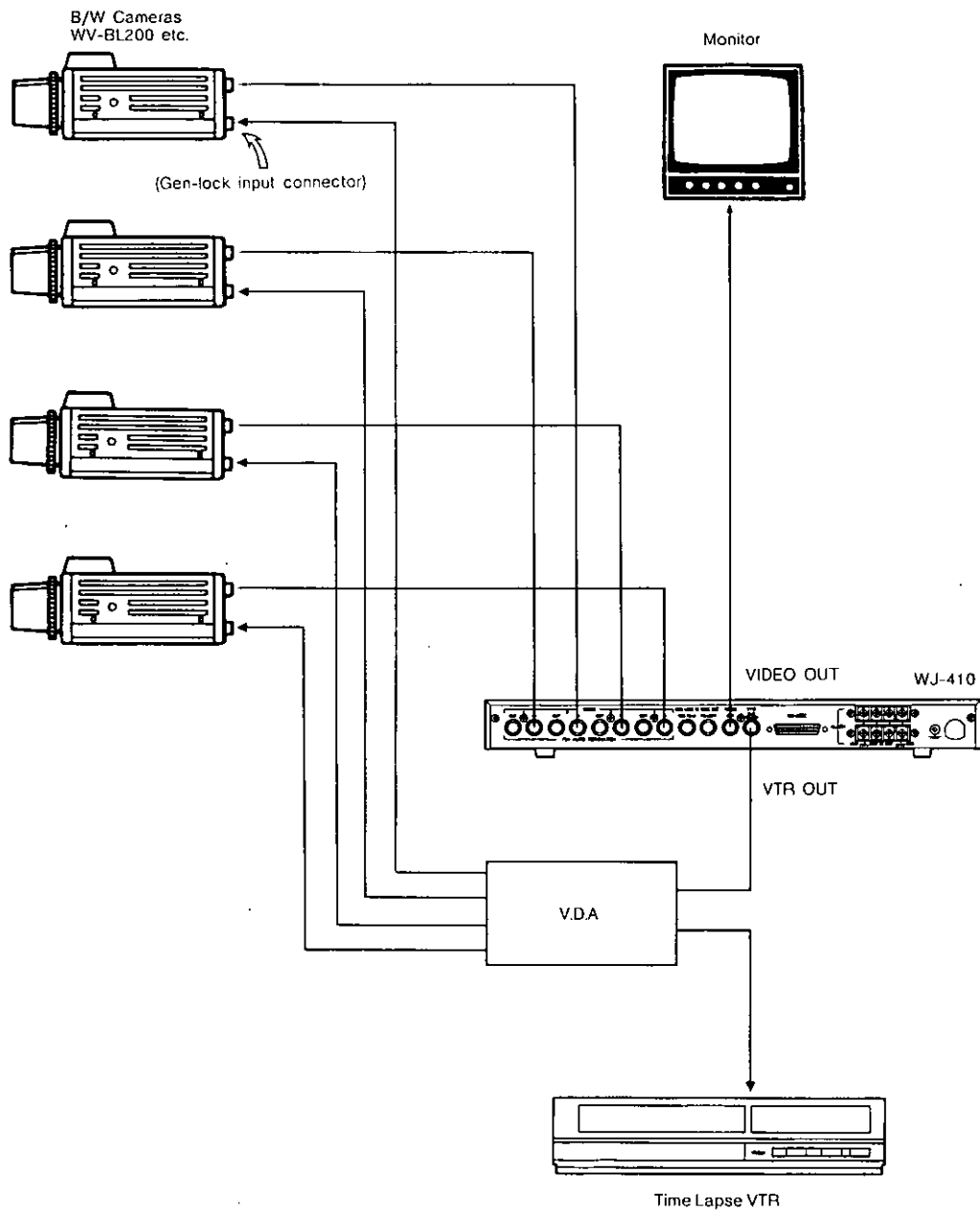
### Connections

- Connect the coaxial cable between the video output of the cameras and the Video Input Connectors (8) of this unit.
- Connect the coaxial cable between the Video Output Connector (11) of this unit and the video input of the video monitor.
- Connect the coaxial cable between the VTR Output Connector (12) of this unit and the video input of the Time Lapse VTR for recording.



## SYSTEM 2

The input video signals for this unit are synchronized, and synchronization noise or disturbances in the video output signal will not occur when Quad or Single Picture mode is selected.



### Connections

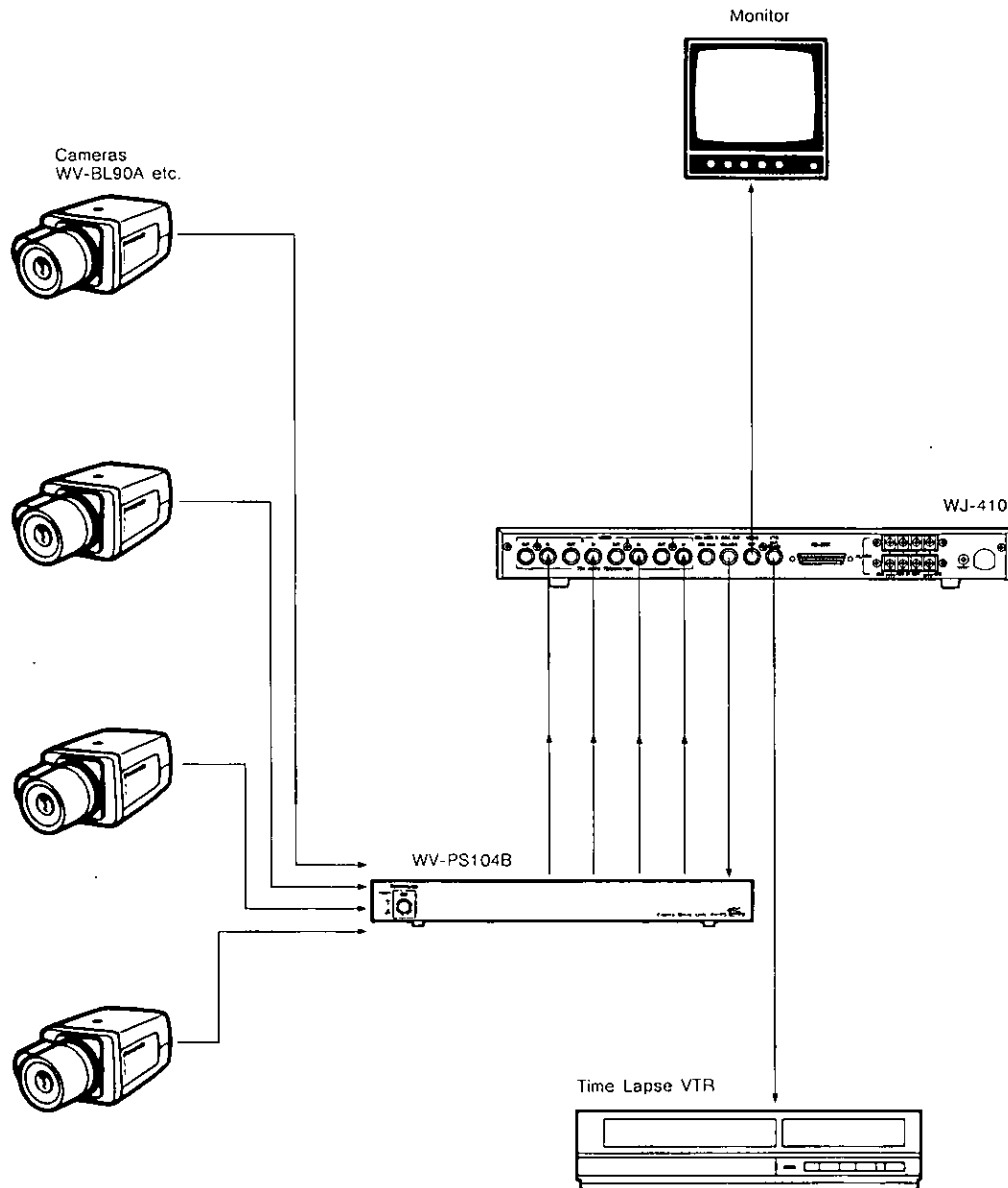
- Connect the coaxial cables between the video output of cameras and the Video Input Connectors (8) of this unit.
- Connect the coaxial cable between the VTR Output Connector (12) of this unit and the video input connector of the video distribution amplifier (V.D.A.).
- Connect the coaxial cables between the video output connector of V.D.A. and the gen-lock input connector of the cameras or the video input of time lapse VTR.
- Connect the coaxial cable between the VTR Output Connector (12) of this unit and the video input of V.D.A.
- Connect the coaxial cable between the Video Output Connector (11) of this unit and the video input of the video monitor.

## SYSTEM 3

When the B/W camera WV-BL90A are used with this unit, the Camera Drive Unit WV-PS104B should be used in this system. The synchronization is available by using WV-PS104B.

### Connections

- Connect the coaxial cables between the video output of the camera and the Camera Input Connectors of the Camera Drive Unit WV-PS104B can be used in the system.
- Connect the coaxial cables between the video output connectors of the Camera Drive Unit and the Video Input Connectors (8) of this unit.
- Connect the coaxial cable between the VTR Output Connector (12) of this unit and the video input connector of the time lapse VTR.
- Connect the coaxial cable between the Video Output Connector (11) of this unit and the video input of the video monitor.
- Connect the coaxial cable between the Sync Output Connector (10) of this unit and the sync input connector of the camera drive unit.



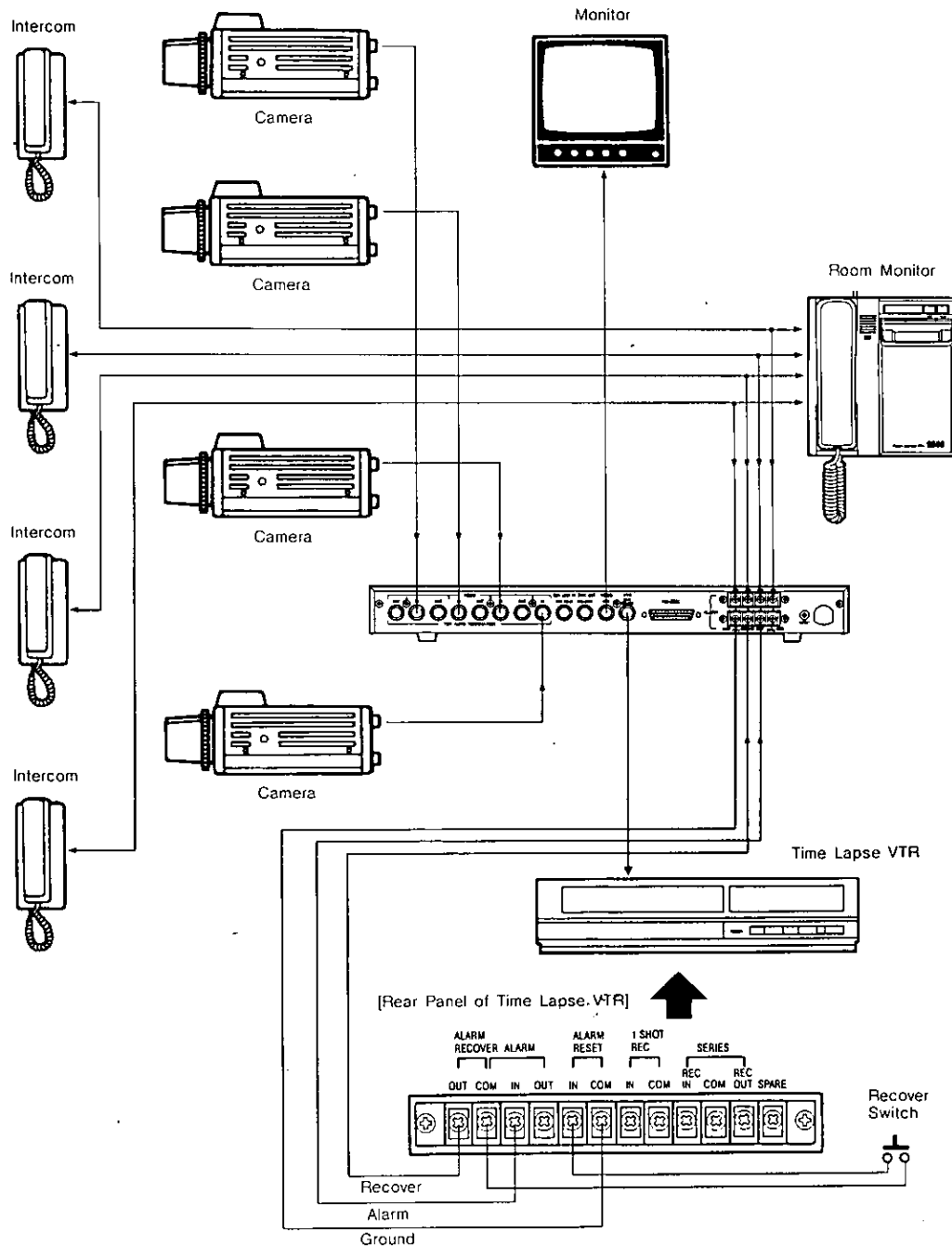


## SYSTEM 4

The input video signal of this unit are synchronized and the intercom system is connected to this unit as alarm sensors.

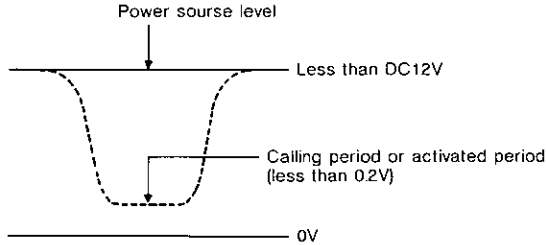
### Connections

- Connect the coaxial cables between the video output of the cameras and the Video Input Connectors (8) of this unit.
- Connect the coaxial cables between the VTR Output Connector (12) of this unit and the video input connector of the time lapse VTR.
- Connect the coaxial cables between the Video Output Connector (11) of this unit and the video input connector of the video monitor.
- Connect the wires of the intercom to the Alarm Input Terminals (14).
- Connect the wire between the Alarm Output terminal (16) of this unit and the Alarm Input Terminal of the time lapse VTR.
- Connect the wire between the Recover Output (Alarm Reset Output) of the time lapse VTR and the Recover Input Terminal (15) of this unit.
- Connect the wires of the Recover Switch (sold separately) to the Alarm Reset In and Alarm Reset Out of the time lapse VTR.



### Cautions for Intercoms and Alarm Sensors/ Switches

- The wiring for intercom system and alarm sensor/ switches should use two wires.
- The power source for intercom system and alarm sensor/switch should be less than 12 V DC. When the intercom or alarm sensor/switch is triggered, the line voltage for intercom or alarm sensor/switch should be DC 0-0.2V.



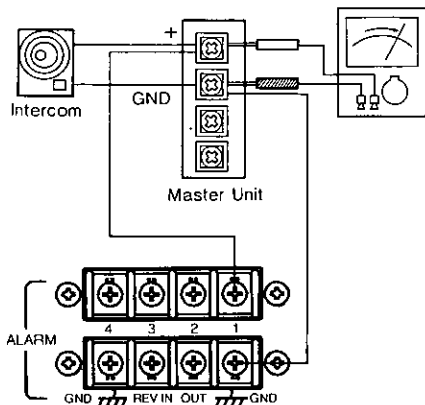
Restrictions on wiring length for the intercom system, alarm sensors system or optional units is as follows.

### Wiring Length for intercom system

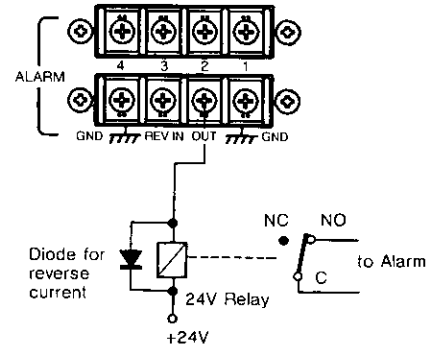
| Wires<br>(mm/Q'ty) | Equivalent<br>AWG | Maximum Wiring Length |
|--------------------|-------------------|-----------------------|
| 0.18/12            | 22                | 490ft (150m)          |
| 0.18/20            | 20                | 820ft (250m)          |
| 0.18/30            | 18                | 1315ft (400m)         |
| 0.18/50            | 16                | 1970ft (600m)         |

AWG : American Wire Gauge

- The polarity for the intercom system and the Alarm Input of this unit should be matched. Check the polarity of the intercom system by the meter.



- The polarity of the alarm and Alarm Output of this unit should be matched.
- The power rating of the alarm should be less than DC 24V, 100mA.
- If the power capacity of the alarm is more than 100mA at DC24V, the alarm can not be connected at the Alarm Output Terminal (16) directly. In this case, a relay circuit should be used of the alarm.



### PICTURE SELECTION PRIORITY

- When the "REMOTE-LOCK" on the Function Setting menu is set to OFF mode, the remote control from the personal computer is not available.

#### Note :

Select the "REMOTE-LOCK ON" when the control is made by the Remote Control Connector (13).

## AUTO RESET SIGNALS PRIORITY

The automatic reset circuit functions according to the type of alarm input signals as follows.

### 1. Alarm Sensor Signal

By choosing the "ALM AUTO RST ON" of the Function Setting menu, the selected picture and ALARM display are automatically reset with the alarm time set by the personal computer.

The picture is then returned to the previous display.

By choosing the "ALM AUTO RST OFF" of the Function Setting menu, the alarm selected picture will be maintained until it is reset manually.

### 2. Intercom Signal

(a) When the intercom calling signal for selecting the picture only is supplied to the Alarm Input Terminals (14) and "ALM BUZZER ON" is selected from the Function Setting menu, the alarm mode is reset with the alarm time set by the personal computer.

(b) Intercom Communication

When the intercom calling signal for selecting the picture is supplied to the Alarm Output Terminals (14) while communication is taking place on the intercom system, the alarm mode will be engaged during communication regardless of the "ALM AUTO RST ON/OFF" setting.

The alarm mode is reset to the previous picture upon completion communication.

### 3. Time Lapse VTR

When the Alarm Input and Recover Output (Reset Output) of the time lapse VTR is connected to the Alarm Output Terminal (16) and Recover Input Terminal (15) of this unit respectively, the alarm mode is reset by the Recover Output (Reset Output) signal of the time lapse VTR and the picture will be returned to the previous display.

## OPERATING PROCEDURE

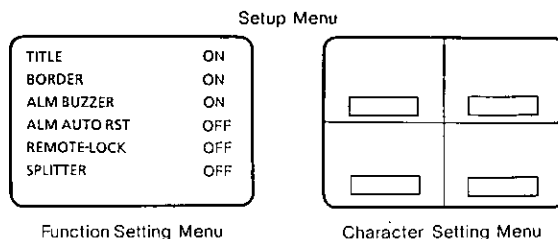
### SETUP PROCEDURE

This quad system utilizes the Setup menu (Function / Character Setting menu) using on-screen character display.

#### 1. Entering Setup Menu

1-1 Set the Menu On/Off Switch (6) to the ON position.

1-2 By every pressing the Quad Switch (4), Function / Character Setting menu is displayed by turns.



#### 2. Function Setting menu description

2-1 Title Display (TITLE)

Up to 8 of alphabetic/numerical characters for the title characters can be displayed on the bottom line of the quad/single picture.

**Note :**

Even if the power of this unit is turned off, the preset title is memorized.

2-2 Border Line (BORDER)

4 border line is displayed on the pictures in the Quad Picture mode.

2-3 Alarm (ALM BUZZER)

The buzzer sound can be listened in the ALM BUZZER On mode for the time preset by the personal computer.

2-4 Automatic Reset (ALM AUTO RST)

The picture which was displayed before the alarm mode is displayed automatically with the preset time.

2-5 Remote Control (REMOTE-LOCK)

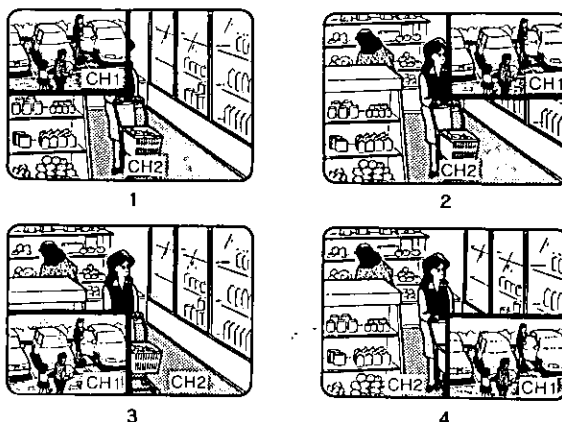
By connecting the personal computer to the Remote Control Connector (13) of this unit, the remote control is available.

In the REMOTE-LOCK On mode or Menu On mode, the switches on the front panel can not be functioned.

2-6 Split Picture (SPLITTER)

The split picture (picture-in-picture) is displayed on the screen instead of the quad picture.

By every pressing of the Camera Selection Switch/4 (5), the split picture changes from OFF → 1 → 2 → 3 → 4 as shown in the following.



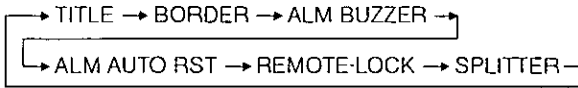
**Note :**

The video signal from the Video Input Connector/2 is displayed as the main picture and the video signal from the Video Input Connector/1 is displayed as the sub picture.

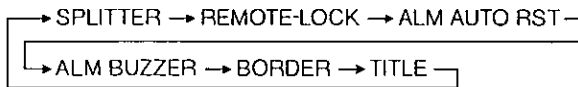
**3. Function Setting Procedure**

**3-1 Item Selection**

By pressing the Camera Selection Switch/1, the cursor can be moved :



By pressing the Camera Selection Switch/2, the cursor can be moved :



**3-2 Mode Selection**

- By pressing the Camera Selection Switch/4, the On/Off mode of each item (exclude "SPLITTER") changes by turns.
- "SPLITTER" is changed from OFF to 4 by the Camera Selection Switch/4.

**Note :**

The On or Off in the selected item is blinked for 0.4 sec.

|              |     |
|--------------|-----|
| TITLE        | ON  |
| BORDER       | ON  |
| ALM BUZZER   | ON  |
| ALM AUTO RST | OFF |
| REMOTE-LOCK  | OFF |
| SPLITTER     | OFF |

Blinked

**4. After Setting**

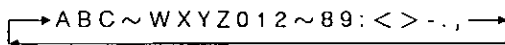
4-1 Set the Menu On/Off Switch to the OFF position after completing the setup.

4-2 The picture which was displayed before the Setup menu is displayed.

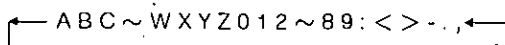
**5. Character Setting Procedure**

5-1 Press the Quad Switch (4) to display the Character Setting menu on the screen.

5-2 By pressing the Camera Selection Switch/1 of this unit, the cursor movement is as :

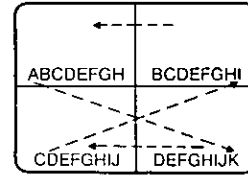


5-3 By pressing the Camera Selection Switch/2 of this unit, the cursor movement is as :

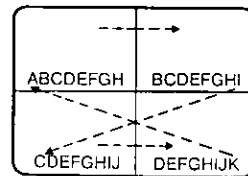


**6. Title Display Position Setting**

6-1 By pressing the Camera Selection Switch/3, the display position is shifted as shown in the following.



6-2 By pressing the Camera Selection Switch/4, the display position is shifted as shown in the following.



**SETUP ORDER**

1. Turn on the Power On/Off Switch (2) of this unit and confirm the Power Indicator (1) lights.
2. Set the Menu On/Off Switch to the ON position.

|              |     |
|--------------|-----|
| TITLE        | ON  |
| BORDER       | ON  |
| ALM BUZZER   | ON  |
| ALM AUTO RST | OFF |
| REMOTE-LOCK  | OFF |
| SPLITTER     | OFF |

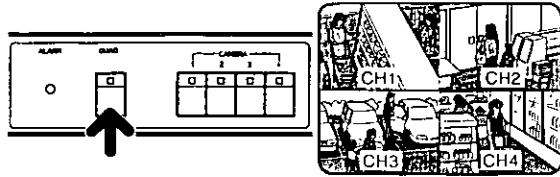
3. Move the cursor on the "REMOTE-LOCK" by using the Camera Selection Switch/1 or 2.
4. Select the "REMOTE-LOCK ON" by pressing the Camera Selection Switch/4.

|              |     |
|--------------|-----|
| TITLE        | ON  |
| BORDER       | ON  |
| ALM BUZZER   | ON  |
| ALM AUTO RST | OFF |
| REMOTE-LOCK  | ON  |
| SPLITTER     | OFF |

5. Move the cursor on the "TITLE" by using the Camera Selection Switch/1 or 2 and select the desired mode of On/Off by pressing the Camera Selection Switch/4.
6. Set the Menu On/Off Switch (6) to the OFF position.

7. To view the Quad picture

7-1 Press the Quad Switch (4) and confirm that the amber indicator on the switch lights.



7-2 By pressing the Quad Switch (4) once again, the monitor display will be changed to show a single picture. The amber indicator goes out.



**Note :**

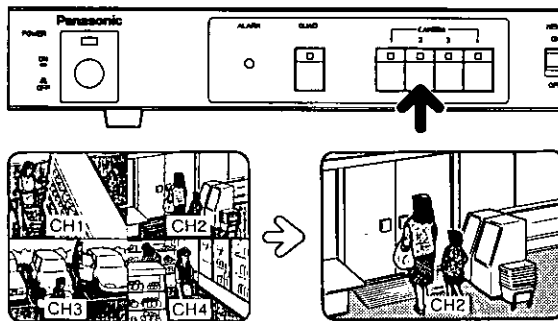
The quad picture is always obtained when power first is turned on.

8. To select a single picture

Select the Single Picture mode by using the Quad Switch (4) and then press the desired Camera Selection Switch (5) while confirming the amber indicator on the pressed switch lights.

**Note :**

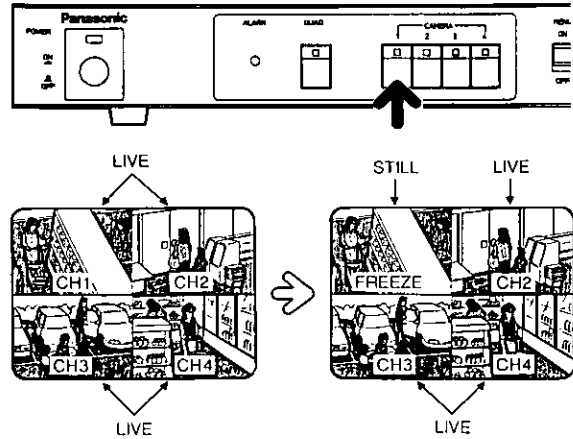
To revert to the Quad picture, press the Quad Switch again.



9. To freeze the Quad picture

9-1 Select the Quad Picture mode by pressing the Quad Switch (4).

9-2 Press the Camera Selection Switches (5) of the desired picture channel.



**Notes :**

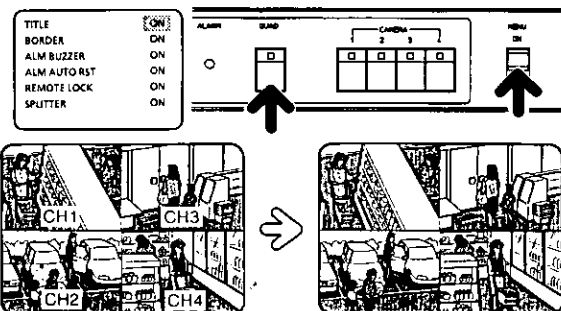
- (1) Up to 4 pictures can be frozen simultaneously.
- (2) When a still picture is selected, "FREEZE" and the preset title will appear alternately (on the Title On mode).
- (3) The FREEZE mode is revert in the following cases.
  - a. An alarm signal is received during the FREEZE mode.
  - b. The Camera Selection Switch (5) of the frozen picture is pressed again.
  - c. The Quad Switch (4) is pressed.
  - d. The Menu Switch (6) is turned on.

10. To display the preset title

Turn on the Menu On/Off Switch (6) and display the setup menu by pressing the Quad Switch (4). Move the cursor on the "TITLE" by using the Camera Selection Switch 1 or 2 and select the On mode by using the Camera Selection Switch/4.

**Note :**

To take away the preset title, select the Title On mode of the Function Setting menu and input the blank. ("ALARM" will appear regardless of the setting of the Title On/Off mode.)



Refer to the Caracter Setting Procedure on page 11 for presetting the titles.

# REMOTE CONTROL OPERATION

A personal computer for the Remote Control Operation should be used NEC PC9800 series.

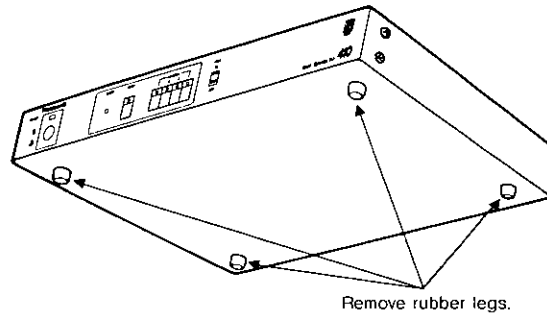
By connecting the personal computer to the Remote Control Connector (13), the remote control is available as shown in the following table.

| Item                                | Input Command from P.C.   | Operating State  | Response Command from WJ-410   |  |
|-------------------------------------|---|--|--|--|
| Operating Control to the WJ-410     | [STX] [1] [K] [Y] [ETX]<br>[STX] [2] [K] [Y] [ETX]<br>[STX] [3] [K] [Y] [ETX]<br>[STX] [4] [K] [Y] [ETX]<br>[STX] [5] [K] [Y] [ETX] | To depress the Camera Selection Switch 1<br>To depress the Camera Selection Switch 2<br>To depress the Camera Selection Switch 3<br>To depress the Camera Selection Switch 4<br>To depress the Quad Switch | [STX] [A] [N] [S] [ : ] [ϕ] [ETX]  | Normally Ended   |
| Present State Request of the WJ-410 | [STX] [N] [O] [W] [EXT]   | Request of the Selected Video Output State   | [STX] [A] [N] [S] [ : ] [ϕ] [ETX]<br>[STX] [O] [N] [E] [ : ] [Parameter] [ETX]<br>[STX] [Q] [U] [E] [ETX]<br>[STX] [M] [O] [J] [ETX]<br>[STX] [K] [I] [N] [ETX]<br>[STX] [V] [I] [C] [ETX]   | Normally Ended<br>Single Picture mode<br>Quad Picture mode<br>Title On mode<br>Set Up mode<br>Split mode   |
| Setting State Request of WJ-410     | [STX] [A] [S] [K] [ETX]   | Setting State Request  | [STX] [A] [N] [S] [ : ] [ϕ] [ETX]<br>[STX] [P] [L] [C] [ : ] [Parameter] [ETX]<br>[STX] [B] [O] [D] [ : ] [Parameter] [ETX]<br>[STX] [F] [U] [Z] [ : ] [Parameter] [ETX]<br>[STX] [H] [O] [M] [ : ] [Parameter] [ETX]<br>[STX] [U] [N] [I] [ : ] [Parameter] [ETX]<br>[STX] [V] [I] [C] [ : ] [Parameter] [ETX]<br>[STX] [T] [-] [1] [ : ] [Parameter] [ETX]<br>[STX] [T] [-] [2] [ : ] [Parameter] [ETX]<br>[STX] [T] [-] [3] [ : ] [Parameter] [ETX]<br>[STX] [T] [-] [4] [ : ] [Parameter] [ETX]<br>[STX] [G] [T] [M] [ : ] [Parameter] [ETX]<br>[STX] [J] [T] [M] [ : ] [Parameter] [ETX]<br>[STX] [I] [T] [I] [ : ] [Parameter] [EXT] | Normally Ended<br>Title Display mode ON : 1<br>OFF : ϕ<br>Border On/Off mode ON : 1<br>OFF : ϕ<br>Alarm On/Off mode ON : 1<br>OFF : ϕ<br>Automatic Return On/Off mode ON : 1<br>OFF : ϕ<br>Remote Control On/Off mode ON : 1<br>OFF : ϕ<br>Split ON : 1<br>OFF : ϕ<br>Title 1<br>Title 2<br>Title 3<br>Title 4<br>Alarm Time ϕ1 - 3ϕ<br>Automatic Reset Time ϕ1 - 6ϕ<br>Sub Picture Position in the Split mode |
| Time Setting                        | [STX] [Z] [T] [M] [ : ] [Parameter] [ETX]   | Alarm Time Setting (ϕ1 - 3ϕ)   |  |  |
|                                     | [STX] [R] [S] [T] [ : ] [Parameter] [ETX]   | Automatic Reset Time Setting (ϕ1 - 6ϕ)   |  |  |
| Alarm Occuring                      |   |  | [STX] [A] [L] [M] [ : ] [Parameter] [ETX]  | Alarm Occuring<br>1CH : 1 3CH : 3<br>2CH : 2 4CH : 4   |
| Mis-Command                         |   |  | [STX] [A] [N] [S] [ : ] [2] [ETX]  | Mis Input  |

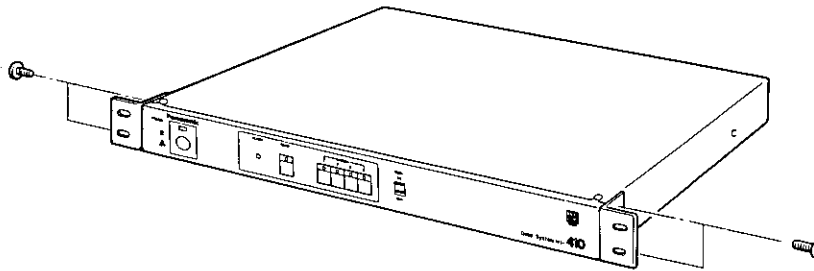
## RACK MOUNTING

When the Quad Unit WJ-410 is to be mounted on a EIA 19-inch rack, use Rack mount angles (provided) and four screws (M4 x 10) (provided).

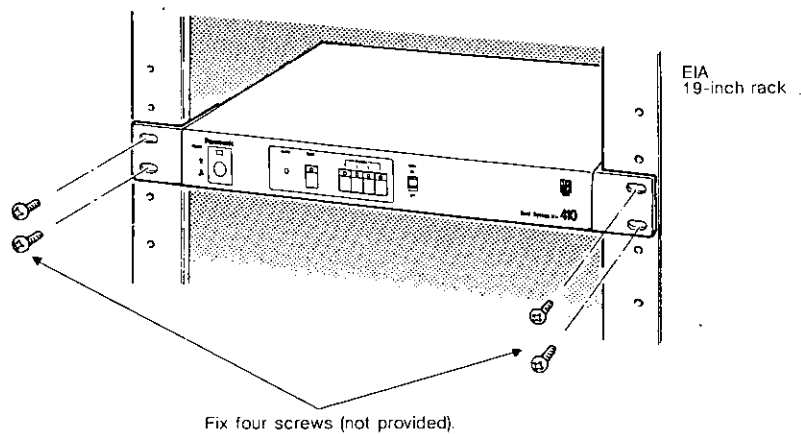
1. Turn off the Power ON/OFF Switch of the unit.
2. Remove four screws fixing the rubber legs and remove the four rubber legs from the bottom of the unit.



3. Attach the Rack mount angles on both sides and fix them by using four screws provided with the rack mount angle.



4. Install the Quad Unit WJ-410 on the EIA 19-inch rack by using four screws (Locally procured).



### Cautions :

1. Keep 1-unit or more space for both the top and bottom of the unit or install a cooling fan in the rack for cooling.
2. Secure the rear of the unit to the rack by using the additional holding angles (procured locally) when vibration is present.

# SPECIFICATIONS

|                                 |   |
|---------------------------------|---|
| Video Input :                   | × 1, 2:1 Interlace, composite 1 Vp-p/75 ohms, Auto Termination or Loop-through, Black and White Video Signal × 4  |
| Video Output :                  | × 2, Composite 1 Vp-p/75 ohms, black and white video signal<br>VTR (QUAD) Output × 1, Composite 1 Vp-p/75 ohms, black and white video signal with composite sync and burst signal |
| Sync Output :                   | × 1, 4 Vp-p/74 ohms   |
| Gen-lock Input :                | × 1, Sync 0.3 Vp-p/VBS (Video Burst Sync) 1 Vp-p/BBS (Black Burst) 0.45 Vp-p/75 ohms  |
| Title :                         | Up to 8 characters for each window  |
| Available Characters :          | A, B, C, ... X, Y, Z, 1, 2, ... 8, 9, ;, < >, -, ., and blank   |
| Title back-up :                 | Up to approximately 10 years by built-in memory   |
| Alarm Input :                   | × 4 (Max. DC 12V and make-contact for ground)   |
| Alarm Output :                  | × 1 (Max. DC 24V, 100 mA and an open collector circuit)   |
| Alarm Time :                    | Adjustable approx. 1 to 30 seconds.   |
| Recover Input :                 | × 1 (Max. DC 12V and a make-contact for ground)   |
| Auto Reset Time :               | Adjustable approx. 1 to 60 seconds.   |
| Ambient Operating Temperature : | 14°F - 122°F (-10°C - +50°C)  |
| Power Source :                  | AC 120V, 60Hz   |
| Dimensions :                    | 16-9/16" (W) × 1-3/4" (H) × 8-7/8" (D)<br>[420 (W) × 44 (H) 225 (D) mm]   |
| Weight :                        | 7.0 lbs. (3.2 kg)   |

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

## STANDARD ACCESSORIES

|                                 |        |
|---------------------------------|--------|
| Rackmount Angle .....           | 1 set  |
| Screw for Rackmount Angle ..... | 4 pcs. |
| Operation Label .....           | 1 pc.  |

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