



JV-TV5020

USER'S MANUAL

CUSTOMER SERVICE INFORMATION

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8-CHANNEL QUAD SPLITTER



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



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

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

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

THE GRAPHIC SYMBOLS WITH SUPPLEMENTAL MARKING IS APPLIED ON THE REAR SIDE OF THE SUBJECT MONITOR.

WARNING : To prevent fire or shock hazard, do not expose this appliance to rain, water, wet locations. Do not insert any metallic object through ventilation grilles.

IMPORTANT SAFETY INSTRUCTIONS

This video monitor equipment is provided with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete

outlet. Do not defeat the safety purpose of the polarized plug.

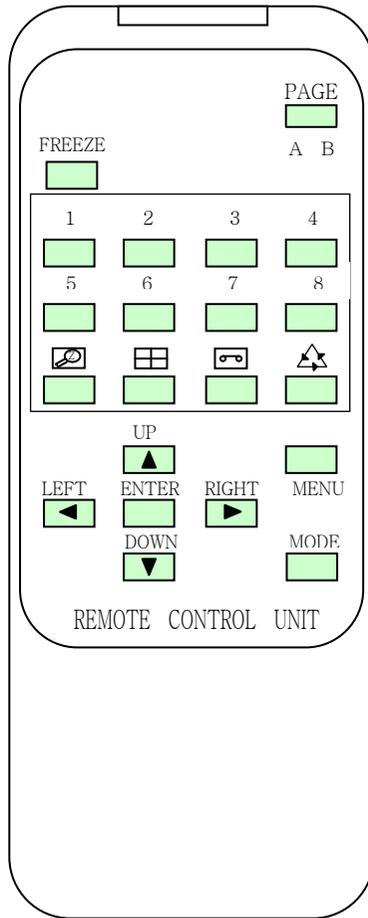
6-2. Other Keys

- ① FREEZE : Enables selected channel freezes in QUAD mode, FULL mode, MODE function.
- ② 1 ~ 8 : Enables selected channel be displayed in full screen.
- ③ ARROWS : Works only in the menu screen.
- ④ ENTER : An editing mode on the menu screen.
- ⑤ PAGE : PAGE A, PAGE B change function.

7. TROUBLESHOOTING

If the system does not function properly, check following points before contacting the service center.

No	Problem	Possible Solutions
1	No Video	<ul style="list-style-type: none"> ● Verify power to all pieces of equipment in the system. ● Verify that the power switches are in the ON position. ● Verify that the cameras are properly hooked up.
2	Video, But no control	<ul style="list-style-type: none"> ● Turn the power OFF for 30 seconds and then turn it ON again.



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Fig. 10 Remote Control

6-1. Function select keys.

 ZOOM MODE : 2X Zoom Mode

 QUAD MODE : It makes you to select the Quad Mode .

 V C R MODE : The Screen comes to VCR mode.

 AUTO MODE : Displays each channel sequentially.

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SECTION 1

1. PURPOSE OF THIS PRODUCT

The purpose of this COLOR QUAD SPLITTER is to provide an economical, but effective method to monitor more than one area with video cameras. This Splitter has following features to enable the users to get the best for their money and efforts:

- Accepts NTSC.
 - NTSC : 720x480 Pixels.
 - Real time quad picture display.
 - PIP (Picture-In-Picture) function.
 - 2x ZOOM with Vertical and Horizontal interpolation.
 - Full-screen display of one camera.
 - Four-position sequential switcher.
 - Programmable dwell times to include cameras and the quad display in the sequential switching mode.
 - On-screen-display and programmable menus.
 - User-programmed data is protected battery back up.
 - Freeze capability can freeze a picture.
- Program selectable border line.

5-6. Recording and Playback

- 1 There are two video output ports on the rear of the splitter. One of them is MON port which is for output of the Quadrant pictures and sequential pictures.
Read the specifications for Time Lapse Recorder or VCR thoroughly before doing this step, because its manufacturer uses different methods to record.
 - a. To record, connect a coaxial cable to the AUDIO IN and VIDEO IN/OUT port on the rear of the monitor and connect the other end of the coaxial cable to the VIDEO IN/OUT port on the VCR.
 - b. Press the "REC" button on the VCR.
 - c. To play, press the AUTO button of the monitor until it goes to the VCR mode with black screen and beeping sound.
 - d. Press the "PLAY" button on the VCR.
 - e. The recorded picture will be displayed on the monitor.When you are operating the normal VCR, make sure that the VCR is in line or A/V mode.

6. IR REMOTE CONTROL

This color quad splitter is also operated by IR Remote Controller.

- a. key buzzer
[Y] – When use this button, BUZZER voice sounds. 18
[N] – When use this button, BUZZER is dumb.
- b. loss buzzer
[Y] – Camera connection signal becomes BUZZER sound if is patience.
[N] – If camera connection sign is patience, BUZZER is dumb.

5-5-4. PAGE 5 SPECIAL Menu

Press the MODE/MENU button again, the following menu screen will be displayed.

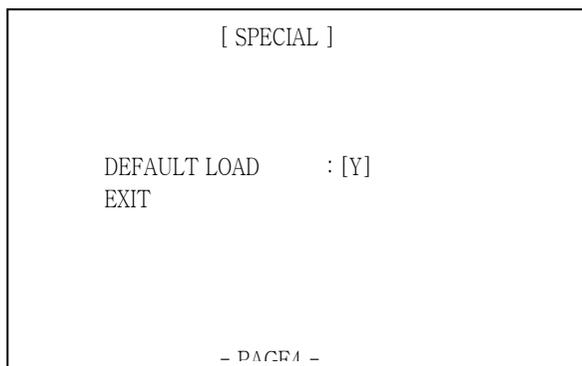


Fig. 9 Page 4 Menu

- a. This function is to Loading for INITIAL data.
- [N] : Disable INITIAL data loading.
 - [Y] : Enable INITIAL date loading.

2. SPECIFICATIONS

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- System
NTSC: 525 lines, 60 fields per second
- Input Signal
Composite video, sync. Negative
- Operating Temperature
32 to 104 degree F
- Humidity
0% to 90% (non-condensing)
- Connectors
BNC connector : video in/out
- Power Source
DC 12V , 1.5A
- Power consumption
10.5W

SECTION 2

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3. CONNECTIONS

The following connections are located on this splitter. See Fig. 1 for connection locations. Do not plug the power supply into this splitter until all connections are made.

FRONT VIEW

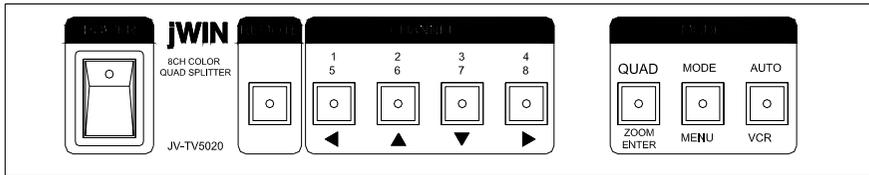


Fig. 1 (CONNECTION LOCATIONS – Front View)

Note.

- (1) This splitter has 2pages (is consists of page A with channel 1~4 and page B with channel 5~8).
- (2) All buttons have a different function by press button short or long.
- (3) To go into the ZOOM or MENU or VCR mode, press the corresponding button long.
- (4) By pressing channel button shortly, channel moves to anther channel where is located in the same place on different page.
- (5) By pressing Quad button shortly in Quad mode, the screen moves to anther Quad mode on different page.
- (6) If you press channel button long, the screen became freeze frame.

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- Place the green color character to the DWELL TIME using the ◀, ▶, ▲ and the ▼ buttons, and press the ENTER button to flash the Dwell Time and set it using the ▲ or the ▼ buttons. Press the ENTER button again to stop flashing the Time.
- Press the MODE/MENU button to return to the Page 2 INDIVIDUAL menu.

c. LOAD

The video signal is normally terminated by 75 ohms. But in case the signal is distributed to a number of lines, only one of lines is needed to be terminated by 75 ohms (1Vp-p), while the other lines are terminated by High impedance status (2Vp-p). The 75 ohms or the HI can be selected by pressing the ENTER button.

5-5-3. Page 4 BUZZER Menu

Press the MODE/MENU button again, the following menu screen will be displayed.

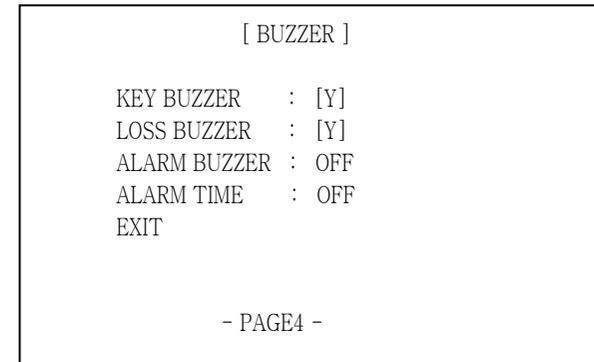


Fig. 8 Page 4 Menu

[INDIVIDUAL]			
Title	Dwell	Alm	Load
CH1: C 1	03s	OFF	75
CH2: C 2	03s	OFF	75
CH3: C 3	03s	OFF	75
CH4: C 4	03s	OFF	75
QUAD A: PAGE 1	03s		
EXIT			
- PAGE2 -			

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Fig. 7 PAGE2,3 MENU

a. Camera Title

- Place the green color character to the date digit using the ◀, ▶, ▲ and the ▼ buttons and press the ENTER button. The first empty box will be flashing
- Select the position you want to enter the letter or the numeric number using the ◀, ▶ buttons.
- ▲ and the ▼ buttons is to change the new character.
- Press the ENTER button to return to the Page 2 INDIVIDUAL menu.

You can enter up to 8 characters for each camera title.

b. Set the DWELL TIME

Dwell Time is the amount of time that a camera is displayed on the screen when the system is in the Automatic sequential switching mode. The Dwell Time can be adjusted individually for each camera and the quad display from 1 to 30 seconds.

When it is set to be zero (OFF) the corresponding camera will be skipped in the Automatic sequential switching mode.

- Buttons on the Front View

- ① **POWER** button is to turn the system ON or OFF.
- ② **REMOTE** is IR(Infra-red) sensor.
- ③ Buttons **CH1**(ch5), **CH2**(ch6), **CH3**(ch7) and **CH4**(ch8)are to select a channel.
- ④ **QUAD** If press button, conversion and page (Page A, Page B) conversion in Quad screen .
- ⑤ **ZOOM** button displays the 2x ZOOM picture in any mode.
- ⑥ **MODE** button displays the PIP or 2PIP.
- ⑦ **MENU** button is to go into the on-screen-display mode.
- ⑧ **VCR** button displays the VCR video input.

REAR VIEW

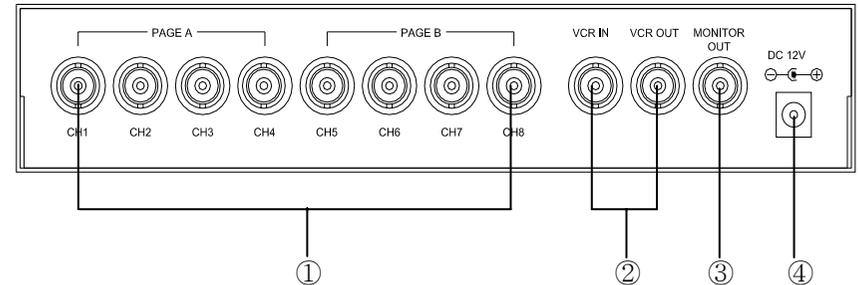


Fig. 2 (CONNECTION LOCATIONS – Rear View)

- Connections on the Back View

- ① **CAMERA INPUT** (channel 1 to 8) connectors are BNC's for composite video input/output.
- ② **VCR IN/OUT** is a BNC connector for video input/output.
- ③ **MAIN MONITOR** is video out to the monitor.

④ **DC IN** is input for DC + 12V.

4. INSTALLATION

4-1. Basic System Installation

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Perform following steps to install your splitter. See Fig. 3.

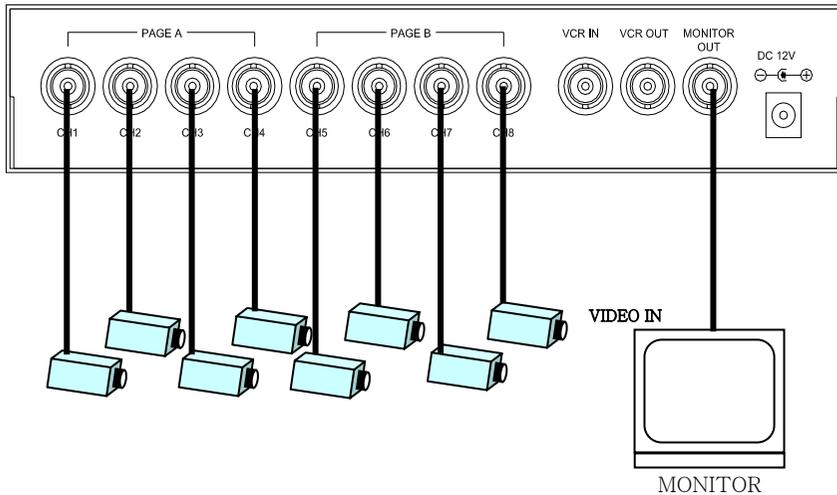


Fig 3. INSTALLATION FOR CAMERAS

- Unpack all components of the splitter from the packing material.
- Identify all of the following pieces:
 - Color Quad Splitter
 - Adaptor (+ 12V, 1.5A)
 - Remote control
 - CCD Cameras and Camera Cables (Optional)
 - User's manual
- Place the quad splitter in a convenient location for your

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usage. See 'Important Safeguards' in this manual.

- Install cameras to be connected to this splitter.
- the DATE (MM:DD:YYYY). Change the content using the ▲ and the ▼ buttons. Press the ENTER button again to stop flashing the DATE.

- Use the ◀ and the ▶ buttons to shift the cursor to the next digit.
- Press ENTER button at the EXIT location to exit from this mode, the splitter will display the quadrant pictures.

- c. There are three formats to display the date.
 - MM-DD-YYYY: for U.S.A.
 - YYYY-MM-DD: for Asian countries.
 - DD-MM-YYYY: for European countries.
- d. Set the TIME & TITLE Display and BOUNDARY LINE
 - Place the cursor to the "Y".
 - Selecting Y or N using the ENTER button will turn the TIME & TITLE Display and BOUNDARY LINE ON or OFF.
- e. Set the BLANK COLOR
 - Place the cursor to the "BLUE".
 - Selecting BLUE, GRAY or BLACK using the ENTER button will decide the color of the blank channel.
- f. Set the EXIT
 - Place the green color character to the EXIT with the ▲ and the ▼ buttons.
 - Press the ENTER button to exit the MENU setup mode.

5-5-2. Page 2 INDIVIDUAL Menu

The following items can be adjusted or programmed on this

menu screen. Pressing MODE/MENU button again, the following menu screen will be displayed.

5-5-1. Page 1 GENERAL Menu

The following items can be adjusted or programmed on this menu screen.

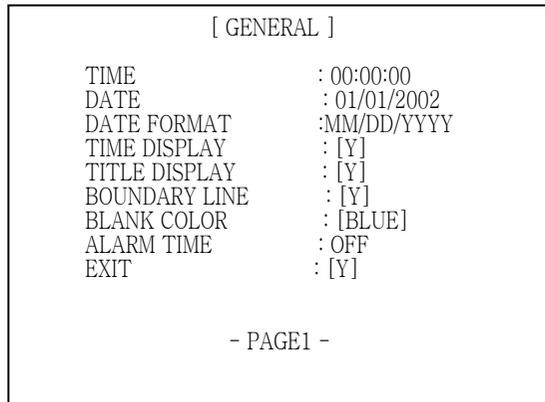


Fig 6. Page 1 Menu

- a. Set the TIME
 - Place the cursor to the time digit using the ◀ or the ▶ buttons, and press the ENTER button to flash the TIME (HH:MM:SS) and set it using the ▲ or the ▼ buttons. Press the ENTER button again to stop flashing the TIME.
 - Use the ◀ and the ▶ buttons to shift the cursor to the next digit.
 - The TIME is displayed in military form of time.
 - Press ENTER button the EXIT location to exit in this mode, the splitter will display the quadrant pictures.
- b. Set the DATE

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 - Place the cursor to the date digit using the ◀ , ▶ ,▲ and the ▼ buttons, and press the ENTER button to flash
 - Connect the DC power cord between this splitter and your wall mounted power outlet.
 - Turn on the power of all cameras and this splitter.
 - A quadrant display should be seen on the monitor.

4-2. Installation with a VCR or Time Lapse Recorder

This splitter may be installed with a standard VCR or a Time Lapse Recorder. Perform following steps to install the splitter with them.

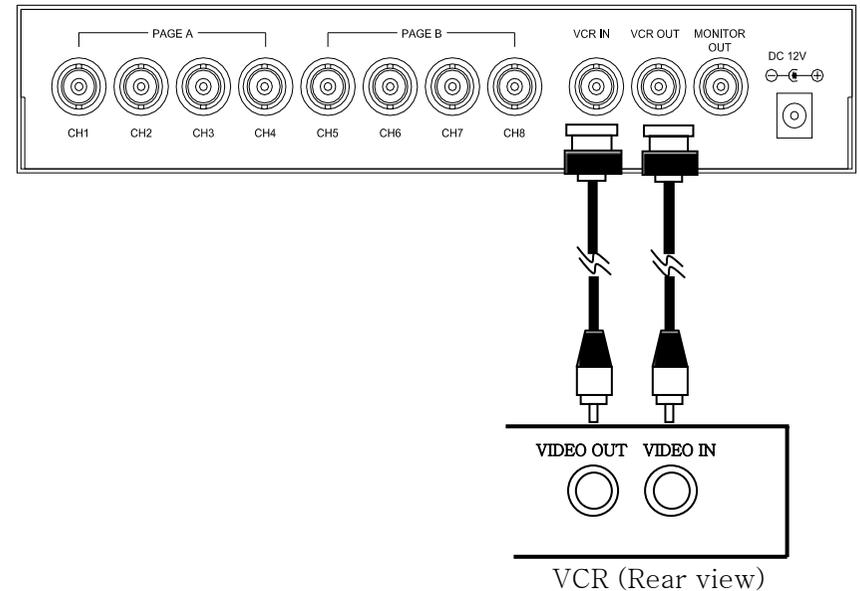


Fig. 4 INSTALLATION WITH A VCR

- Connect all cameras to the splitter.

- Check if you are ready with following stuffs.
 - Recorder
 - Two RCA to BNC video coaxial cables for Time Lapse Recorder 6
 - Video Tape
 - Two RCA to RCA video coaxial cables for consumer recorder (if necessary)
- Connect one video coaxial cable from the VCR OUT on the back of the splitter to the VIDEO IN port of the VCR.
- Plug the DC power cords for the splitter and the recorder into the wall mounted power outlets.
- Turn on the power switches for the splitter and the recorder. A picture should be displayed on the monitor.
- Program the recorder and start the recording process using the VCR manufacturer's instructions.

CAUTION
 Do not use staples to support the cables or wires (it might be damaged).
 All connections should be properly connected and insulated to prevent electrical shock and fire hazards.

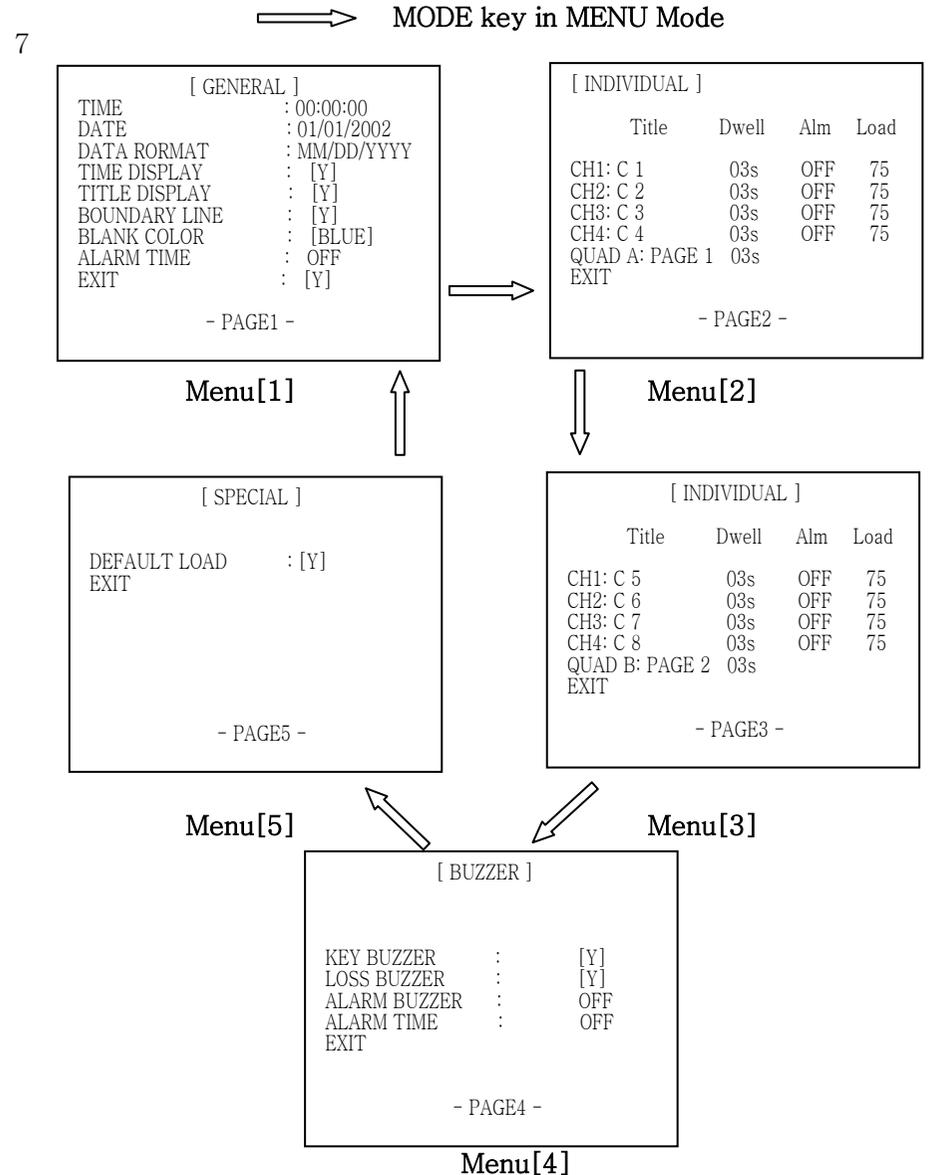


Fig 5. MENU PAGE[1], [2], [3], [4], [5]

5-3. Automatic Camera Skip in the Auto Mode

If you do not wish to view a particular camera, set the DWELL TIME in the MENU(2),(3) setup mode to a value of zero.

5-4. Manual Mode Operation

This splitter displays only one camera (full-screen), even if there are additional cameras connected to it.

- Press the QUAD button on the front panel of the splitter to enter the AUTO mode from the QUAD mode. If the splitter is currently in AUTO mode, proceed next step.
- Press the desired channel button.
- Press the QUAD button to return to the QUAD mode.

5-5. How to Program the Menus for OSD (On-Screen Display)

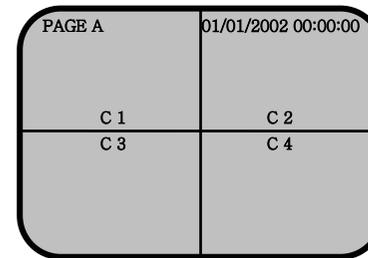
There are three pages of Menus to display the time, date, and a camera title for each camera, etc. on the monitor. To enter the MENU setup mode, press the MODE/MENU button on the front panel of the monitor until the MENU displays on it (2 seconds). The page 1 GENERAL screen will be displayed with beeping sound, and pressing MODE/MENU button one more time will show the Page 2 INDIVIDUAL screen, then the Page 3, Page 1, Page 2, so on. Press the ENTER button the EXIT location in Menu1 to exit the MENU setup mode.

SECTION 3

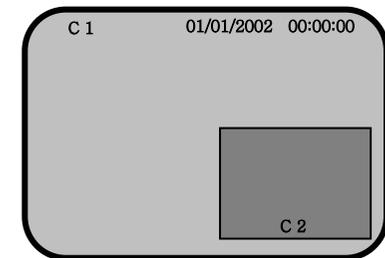
5. OPERATION

5-1 Change Display Mode

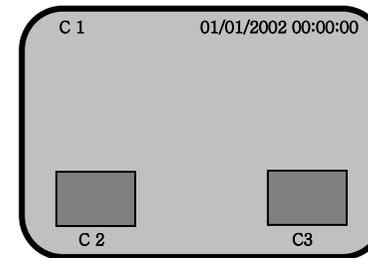
There are 6 Different display mode styles as shown below. And they are selected by the MODE key or the QUAD key or the AUTO key or CHANNEL keys. When system is reset or power is turned on system is initialized to the QUAD mode.



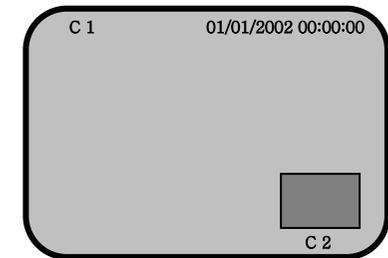
QUAD Mode



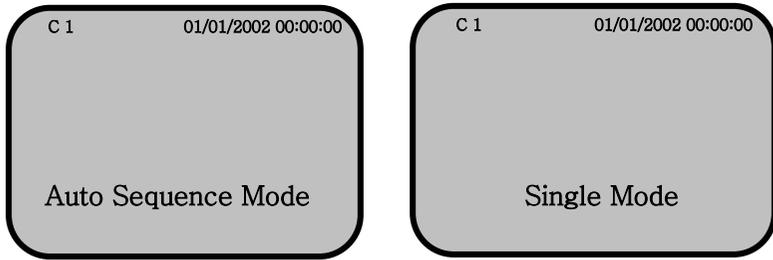
1 Picture In Picture Mode (1PIP)



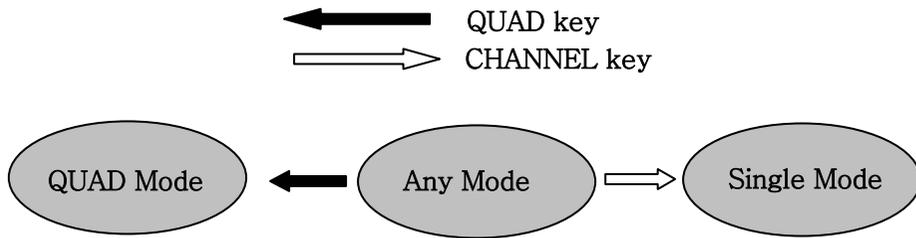
2 Picture In Picture Mode (2PIP)



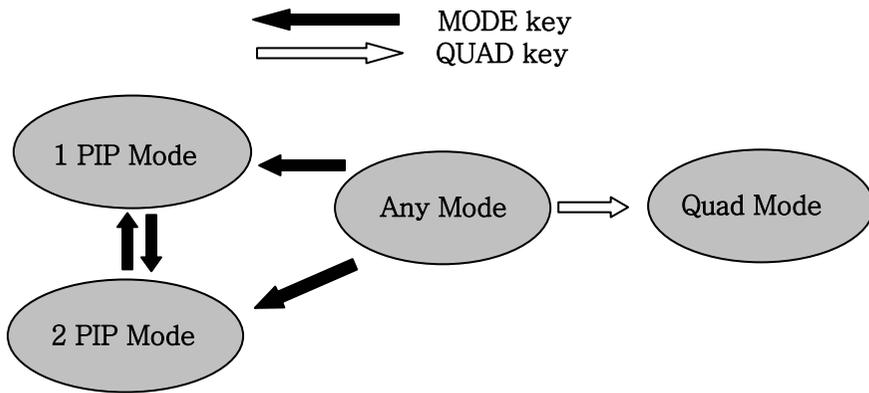
Sequence Picture In Picture Mode



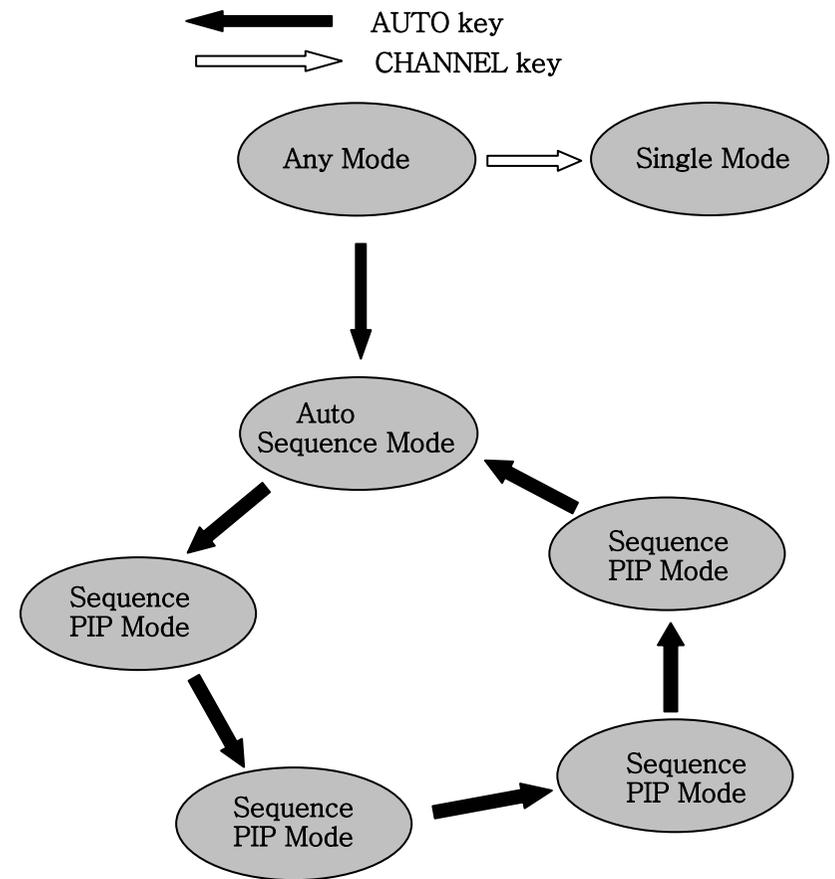
The following diagram shows the sequence of selected mode when pressing QUAD key and CHANNEL keys.



The following diagram shows the sequence of selected mode when pressing MODE key.



The following diagram shows the sequence of selected mode when pressing AUTO key and CHANNEL keys.



5-2. Quad Mode Operation

The splitter normally displays quadrant picture in the Quad mode to the monitor when the power is first applied to it. If the monitor is not displaying quadrant pictures, press the QUAD button so that the unit returns to the QUAD mode. Press the (CH1,ch5), (CH2,ch6), (CH3,ch7) and (CH4,ch8) button to freeze the picture. Corresponding picture(s) will be frozen with the letter "F" on the screen.