



Owner's manual & Installation manual

CJ-7300G

7" WIDESCREEN DIGITAL QUAD COLOR MONITOR



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This unit has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.




This unit generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this unit does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to consult the dealer or an experienced radio/TV technician for help.

■ INFORMATION FOR USERS:
CHANGES OR MODIFICATIONS TO THIS PRODUCT NOT APPROVED BY THE MANUFACTURER WILL VOID THE WARRANTY AND WILL VIOLATE FCC APPROVAL.

1. SAFETY INSTRUCTIONS

Please read the "Safety Rules" carefully before using this product. Following the safety rules prevents users from damages related with the misuse of the product. It is very important to follow these safety rules. We state "Caution" and "Warning" to clarify any potential risk of damage associated with the misuse of the product.

 WARNING	This information is for preventing bodily harm or even death and user should follow these safety rules.
 CAUTION	This information is for preventing damage or shortening the life time of the products.
 ATTENTION	This information is for user's reference for better usability.



WARNING

- **Do not install the monitor in effective range of air bags.**

It may cause malfunction of air bag or injury in the event of an accident deploying the air bag.



- **Do not use if smoke is seen or unit emits burning smell.**

It may cause fire. Discontinue use and contact place of purchase.



- **Do not disassemble, repair or modify.**

It may cause malfunction or injury and may void warranty.
Make inquiries to place of purchase for repair and checkup.



- **Do not reverse vehicle while relying only on the monitor image.**



- **Drive slowly when reversing.**





CAUTION

- **Disconnect battery before installation. Re-connect once installation is complete.**

Prevents electric shock or short circuit.



- **Do not use for long periods without engine running.**

It may cause battery to go flat.



- **The rear-view monitor image has the same right-left inversion as your vehicle's rearview mirrors. Depending on the vehicle, the field and angle of view may differ.**



- **Do not use multi socket or extended adaptor.**

It may cause unexpected overheating, fire and malfunction.



- **Unplug product when not in use for a long time.**

It may cause fire by short circuit due to overheating.



- **Do not place near magnet.**

It may cause malfunction or picture distortion.



- **The battery for remote controller is not rechargeable and should be replaced by the same or similar model. Used battery may cause environmental pollution, so trash it carefully.**



Incorrect battery may cause malfunction or damage.

2. BEFORE USE

Precautions (when you use the monitor)

- Use the product at the temperature range of $-10^{\circ}\text{C} \sim 60^{\circ}\text{C}$.
- Screen may be a little dark when the product is operated in low temperature areas. Screen will show normal luminosity after a few minutes.
- Do not disassemble and modify the product in any way. This may cause fire and/or electric shock.
- When you install the product in a vehicle and watch the monitor, the car engine should be running to avoid flattening the battery.
- Any liquid leaking into product may cause malfunction.

Precautions (when you use the product in a vehicle)

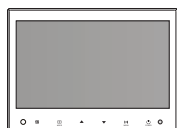
- The driver should not use the product while he/she is driving.
- Be cautious of humidity and shock when you use the product in a vehicle.
- Cover the product when exposed to direct rays of the sun for a long period of time. (You should keep the product at a temperature range of $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$.)

3. FEATURES

- 7" Widescreen digital TFT LCD with high resolution and low reflection
- All functions are displayed on screen (OSD function)
- 8 language display Selection (ENG-FRE-GER-ITA-SPA-SWE-CHI-JAP)
- DC 12~24V
- Control via Touch buttons on front panel or via infra-red remote control
- Max. 4 camera and 1 A/V input (Video / Mono Audio)
- Camera input screen inversion (Normal / Mirror mode)
- User can choose split screen (2/ 3 / 4 Split screen)
- Automatic illumination sensor
- NTSC/PAL (User can select manually)
- In-built Speaker (mono)

4. CONTENTS

※ When opening the gift box, please check the contents listed below. If you find parts are missing, please contact place of purchase.



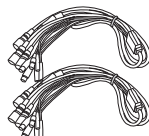
Monitor (1)



- Stand (1)
- Screw (3)
- Cord holder (2)



- Remote controller (1)
- Battery (1)



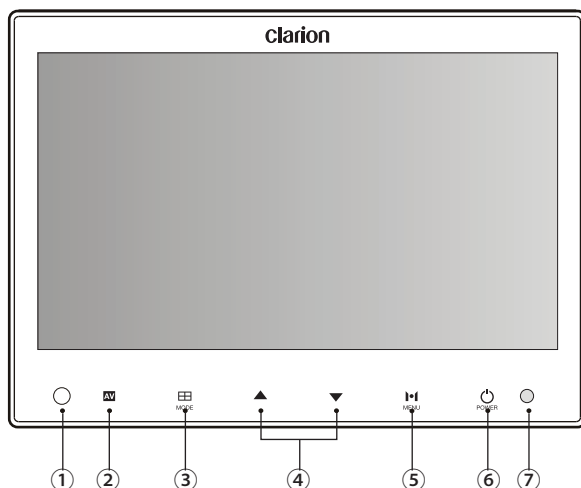
Monitor cable (2)



Manual (1)

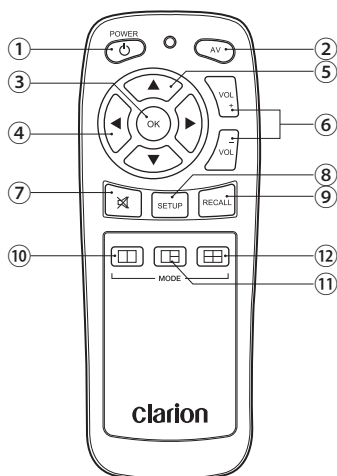
5. FUNCTION OF EACH PART

[Monitor]



① SENSOR	IR-SENSOR for remote control signal
② AV	Switch AUX
③ MODE	Switch Screen / Select SUB-MENU
④	Switch camera inputs / Select split mode / Volume control / Set SUB-MENU
⑤ MENU	Switch main menu
⑥ POWER	Power ON / Stand-by
⑦ DIMMER SENSOR	Automatic brightness control sensor

[Remote Controller]



① POWER	Power ON / Stand-by
② AV	Switch AUX
③ OK	Select button
④	SUB-MENU setting
⑤	Switch Screen / Select SUB-MENU
⑥ VOL +/-	Volume control
⑦	Mute ON / OFF
⑧ SETUP	Switch menu
⑨ RECALL	Display actual settings
⑩	Go into 2 split screen and change split form
⑪	Go into 3 split screen and change split form
⑫	Go into 4 split screen and change split form

6. FUNCTION

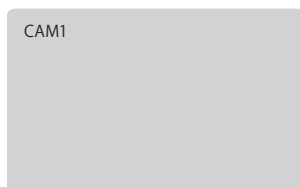
1 POWER ON/STAND-BY



Press POWER button on remote control or monitor then the picture of the camera will be shown on the monitor.

※ It is set to 4 split mode from the factory.

※ If there is no image, the screen will be BLACK.

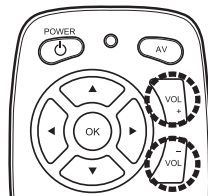


CAM1 image signal received



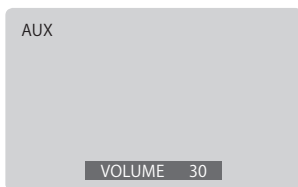
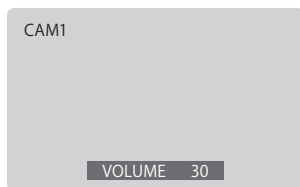
No image signal

2 VOLUME CONTROL



Press and hold the ▲/▼ button on the monitor or press VOL+/-button on remote control to adjust volume.

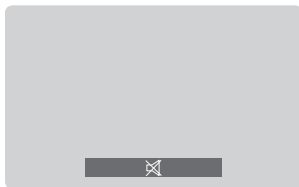
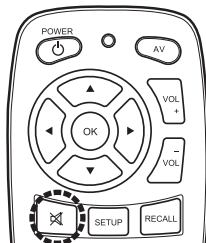
※ AUDIO INPUT is available only for CAMERA1(REAR) or external input(AUX).



3 MUTE ON/OFF

Press MUTE [M] button on remote control for MUTE function ON/OFF.

※ MUTE function is turned off by operating VOL+/- (Volume control) or POWER button.



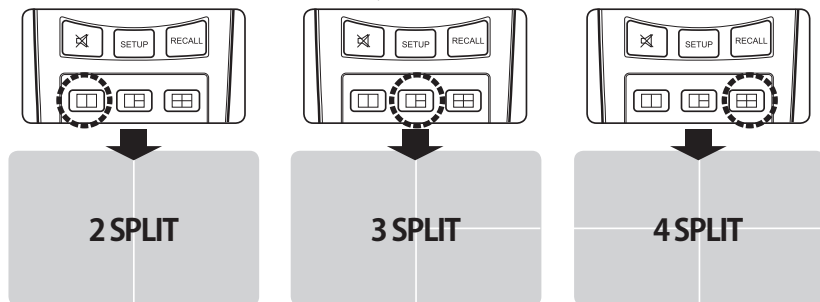
4 SWITCH SCREEN : FULL / 2 / 3 / 4 SPLIT



Press MODE button on monitor, then the screen switches in the following order.



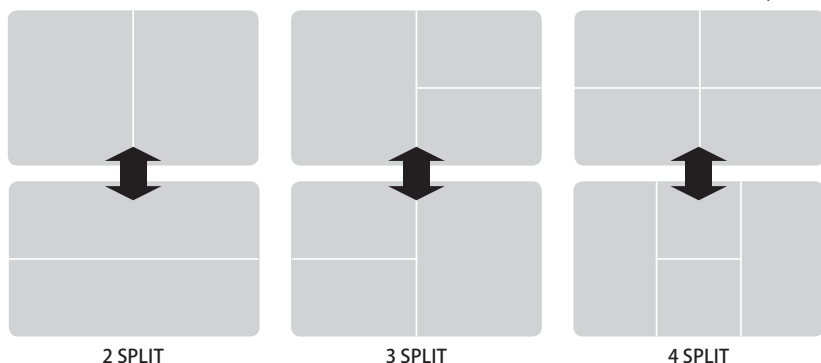
※ User can choose split screen directly with split button on remote control.



5 SELECT SPLIT MODE



Each split screen has two options. In split mode, press ▲/▼ button on the monitor or split screen button on the remote control then the screen switches between both options.



6 SWITCH INPUT VIDEO

1) Switch camera input

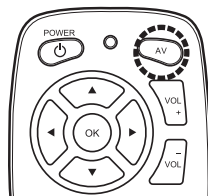


Press ▲/▼ button on remote control, and it will change the camera input of CAM1~CAM4 in the following order.

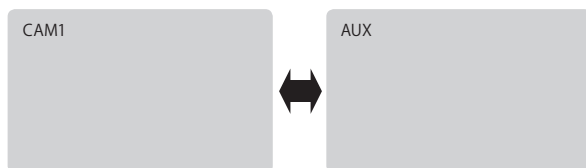
※ Pressing the ▼ button on remote control will change the view in reverse order. To use the monitor button, go into full screen by pressing MODE button and use ▲/▼ button.



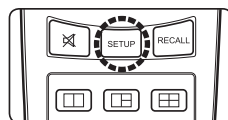
2) Switch AUX



In camera mode, press AV button on the monitor or remote control then the screen goes directly to AV mode.

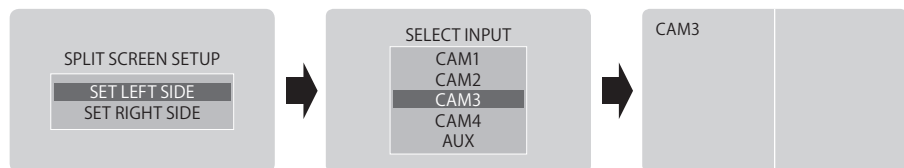


3) Split screen display setting



To go to 「Split screen display setting」, press MENU button on the monitor or SETUP button on the remote control.

• Setting example of Split screen



Select 「SET LEFT SIDE」 by MODE button on the monitor or ▲/▼ button on the remote control, and then press ▲ button on the monitor or OK button on the remote control.

Select 「CAM3」 by MODE button on the monitor or ▲/▼ button on the remote control, and then press ▲ button on the monitor or OK button on the remote control.

CAM3 image will be displayed in left screen.

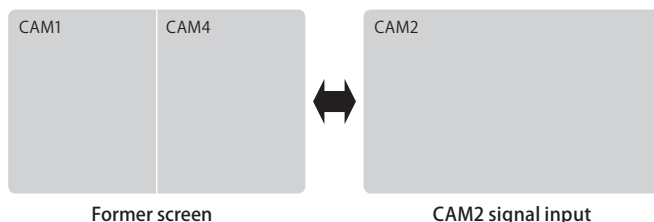
※ Set up in the same way for every split screen mode.

7 SCREEN SWITCH BY TRIGGER INPUT

<Trigger input> or <trigger signal> is when camera priority is selected by a signal, for example if driver uses right/left turn signal or reverse gear, the monitor shows connected camera in driving mode.

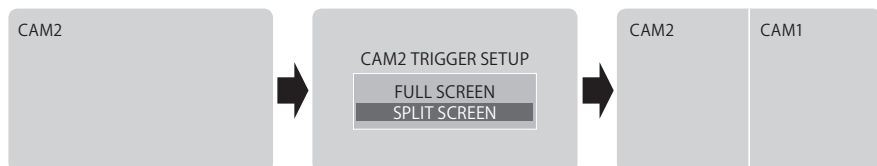
※ Below example is based on 「TRG2 (Left turn signal)=CAM2 / TRG3 (Right turn signal)=CAM3 / TRG1 (Reverse gear)=CAM1」

- 1) If there is a trigger signal input, the connected camera is displayed as full screen and switches back when the signal switches off.



- 2) In case of TRG2 (Left turn signal) or TRG3 (Right turn signal), you can choose full screen or split screen by OSD setting.

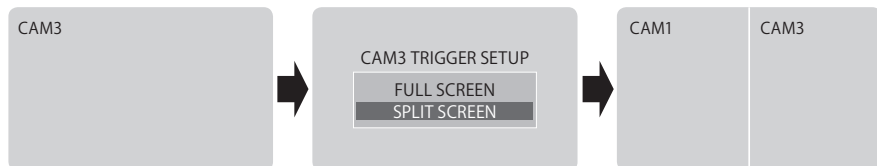
※ This function is for showing not only Left(Right) but also rear side at once, regardless of former screen status. It displays CAM2(3) and CAM1 as split screen when TRG2(3) signal input is on.



Press MENU button on the monitor or SETUP button on the remote control in CAM2 full screen mode, then OSD menu appears.

Press MODE button on the monitor or ▼ button on the remote control to move 「SPLIT SCREEN」 and press ▲ button on the monitor or OK button on the remote control.

If there is a left signal input (TRG2), then CAM1(Rear) will be shown in right side and CAM2 will be shown in left side.



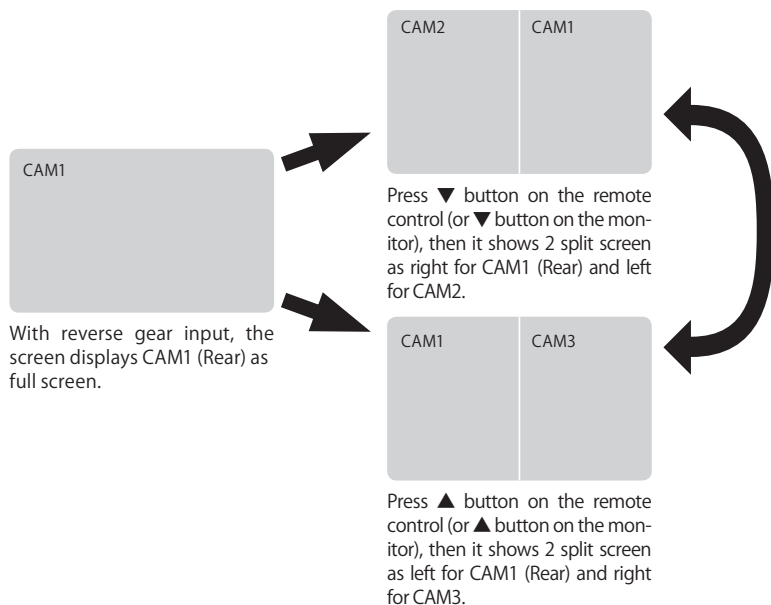
Press MENU button on the monitor or SETUP button on the remote control in CAM3 full screen mode, then OSD menu appears.

Press MODE button on the monitor or ▼ button on the remote control to move 「SPLIT SCREEN」 and press ▲ button on the monitor or OK button on the remote control.

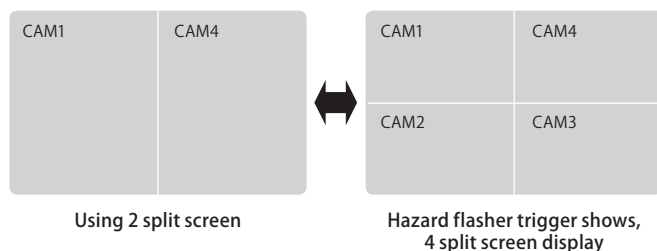
If there is a right signal input (TRG3), then CAM1(Rear) will be shown in left side and CAM3 will be shown in right side.

3) When there is the TRG1(Reverse gear) input, CAM1 will be shown as full screen and user can also choose 2 split screen.

※ With this function, you can check the side image simultaneously while reversing.



4) In the case of a hazard flasher trigger, the monitor displays CAM1~CAM4 as quad split screen. And the screen switches back when the trigger signal switches off.



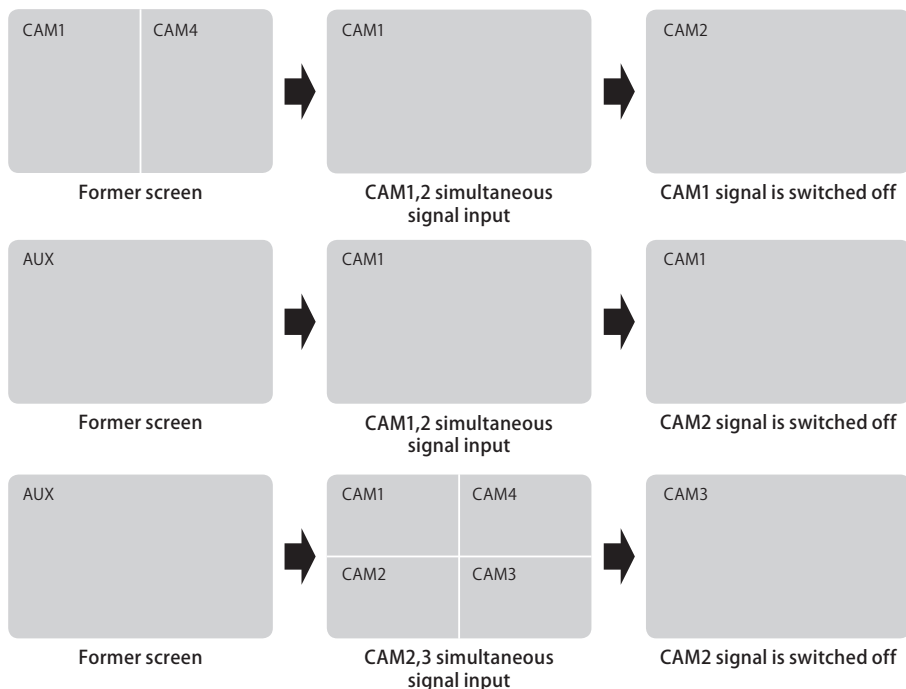
- 5) When there is an input signal from more than 2 triggers, the monitor displays fully connected screen (Trigger input screen) as the priority order. And the screen switches back when the signal switches off, the rest will be displayed in the priority order.



NOTICE

※ **TRIGGER PRIORITY ORDER**

TRG1 (Reverse gear) > TRG2 + TRG3 (Hazard flasher) > TRG2 (Left turn signal) > TRG3 (Right turn signal)



- ※ If there is trigger signal input in power off (Stand-by) status, the screen switches on and displays chosen trigger line (camera). And the screens turns off when the trigger signal switches off.

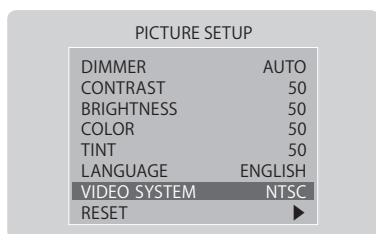
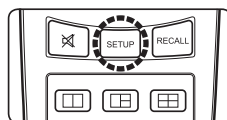
7. SETTINGS

1 VIDEO STANDARD SYSTEM, NTSC/PAL SELECTION

Using the monitor in PAL format with a NTSC video signal will cause an image malfunction. This product can convert NTSC/PAL format manually but it is not automatic. Before use, please check and set the correct format for your area.



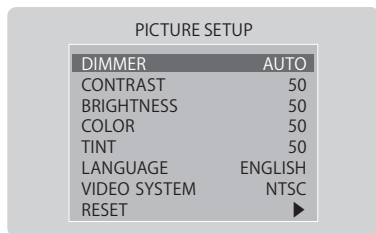
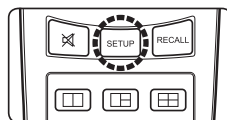
NTSC system country : USA, CANADA, JAPAN, KOREA, TAIWAN, MEXICO
 PAL system country : AUSTRALIA, BELGIUM, CHINA, DENMARK, FINLAND,
 GERMANY, U.K, NETHERLAND, ITALY, KUWAIT, MALAYSIA,
 NEW ZEALAND, SINGAPORE, SPAIN, SWEDEN, THAILAND,
 NORWAY.



- 1) Press SETUP button on the remote control (or MENU button on the monitor) three times to go into OSD MENU「PICTURE SETUP」.
- 2) Move to VIDEO SYSTEM by pressing ▼ button on the remote control (or MODE button on the monitor) then choose video standard system by pressing ◀/▶ button on the remote control (or ▲/▼ button on the monitor).

2 DIMMER SENSOR SETTING

※ User can choose DAY/NIGHT/AUTO. (Factory default setting is AUTO)

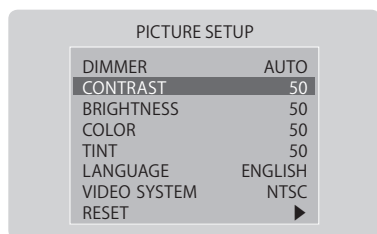
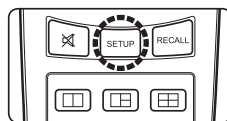


- 1) Press SETUP button on the remote control (or MENU button on the monitor) three times to go into OSD MENU「PICTURE SETUP」.
- 2) Move to DIMMER and then choose by pressing ◀/▶ button on the remote control (or ▲/▼ button on the monitor).

3 BRIGHTNESS AND CONTRAST SETTING

User can control CONTRAST/BRIGHTNESS/COLOR/TINT.

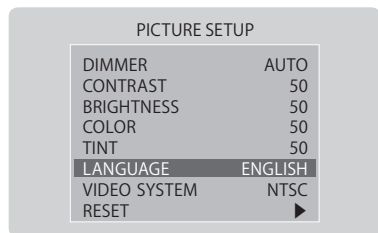
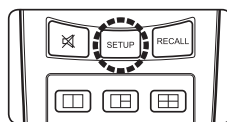
※ Each menu is set at 50 from the factory.



- 1) Press SETUP button on the remote control (or MENU button on the monitor) three times, to go into OSD MENU「PICTURE SETUP」.
- 2) Move to each menu by pressing ▼ button on the remote control (or MODE button on the monitor) then choose by pressing ◀/▶ button on the remote control (or ▲/▼ button on the monitor).

4 LANGUAGE SETTING

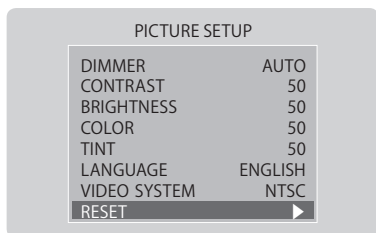
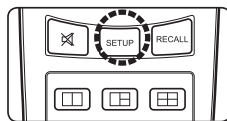
※ Supports 8 languages and is set to ENGLISH from the factory.



- 1) Press SETUP button on the remote control (or MENU button on the monitor) three times, to go into OSD MENU [PICTURE SETUP].
- 2) Move to LANGUAGE by pressing ▼ button on the remote control (or MODE button on the monitor) then choose by pressing ◀/▶ button on the remote control (or ▲/▼ button on the monitor).

5 INITIALIZATION

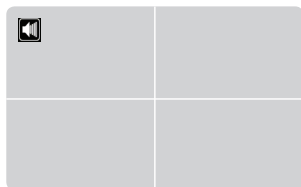
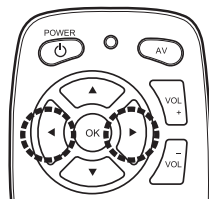
※ Initializes monitor back to factory settings. (Except on Video Standard System, NTSC/PAL)



- 1) Press SETUP button on the remote control (or MENU button on the monitor) three times to go into OSD MENU [PICTURE SETUP].
- 2) Move to RESET by pressing ▼ button on the remote control (or MODE button on the monitor) then choose by pressing ◀/▶ button on the remote control (or ▲/▼ button on the monitor).

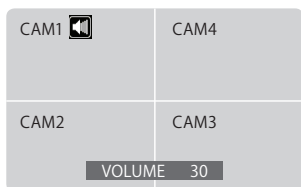
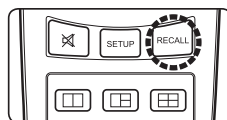
6 AUDIO OUTPUT

In split mode, user can choose CAM1 or AV screen for audio output.



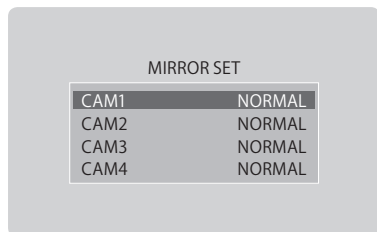
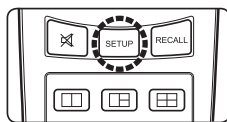
- 1) Hold ◀/▶ button on the remote control (or MODE button on the monitor) depressed for 1 second, then speaker icon appears.
- 2) Pressing the ◀/▶ button on the remote control (or MODE button on the monitor) will move the icon to the other screen.

7 SCREEN INFORMATION



Hold MENU button on the monitor or RECALL button on the remote control depressed, then it displays actual screen information.

8 CAMERA MIRROR/NORMAL MODE SETTING



- 1) Press SETUP button on the remote control (or MENU button on the monitor) twice to go into OSD MENU 「MIRROR SET」.
- 2) Select camera by pressing ▼ button on the remote control (or MODE button on the monitor) then set MIRROR/NORMAL mode by pressing ◀/▶ button on the remote control (or ▲/▼ button on the monitor).

※ It is set NORMAL mode from the factory.

9 ON SCREEN DISTANCE MARKER SETTING

Warning

- The onscreen distance markers should be considered as a general reference to assist the driver in assessing the distances depicted on the screen. The distance markers have been designed based on the “CCD camera installation conditions” listed in the next section, but differences in vehicle design and construction may result in the actual installation condition or location being different from the conditions listed. In such cases, the display location should be set at the closest marker No.
- Distance markers cannot be set if non Clarion cameras are used.

Caution

- The markers may not indicate the exact position of the bumper, the vehicle's width or the distance to the rear. Use as a reference only.

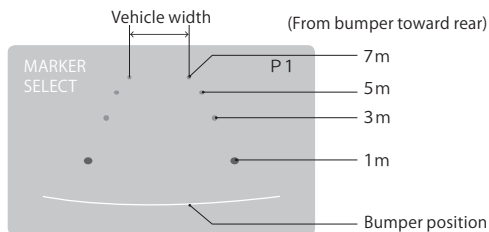


- ① Press MENU button on the monitor or SETUP button on the remote control on CAM1, full screen mode.
- ② Press MODE button on the monitor or ▲/▼ button on the remote control, and select MARKER SETUP ON. Then, press ▲ button on the monitor or OK button on the remote control.

● MARKER SELECTION

- ① Press MENU button on the monitor or SETUP button on the remote control four times, and select MARKER SELECT menu.
- ② Press ▲ / ▼ button on the monitor or ◀/▶ button on the remote control, and switch marker pattern.

※ Distance marker function setting is only possible when MARKER SETUP ON is selected on CAM1, full screen mode.



■ CCD camera installation conditions (distance marker input conditions)

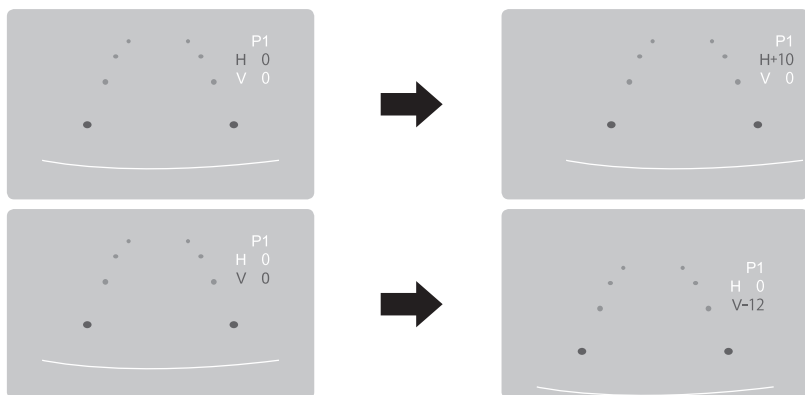
(Unit: mm)

Marker No. (Pattern)	Camera Install Height	Vehicle Width
P 1	2, 0 0 0	2, 5 0 0
P 2	2, 2 5 0	2, 3 0 0
P 3	2, 5 0 0	
P 4	2, 7 5 0	
P 5	3, 0 0 0	
P 6	3, 2 5 0	
P 7	3, 5 0 0	2, 5 0 0

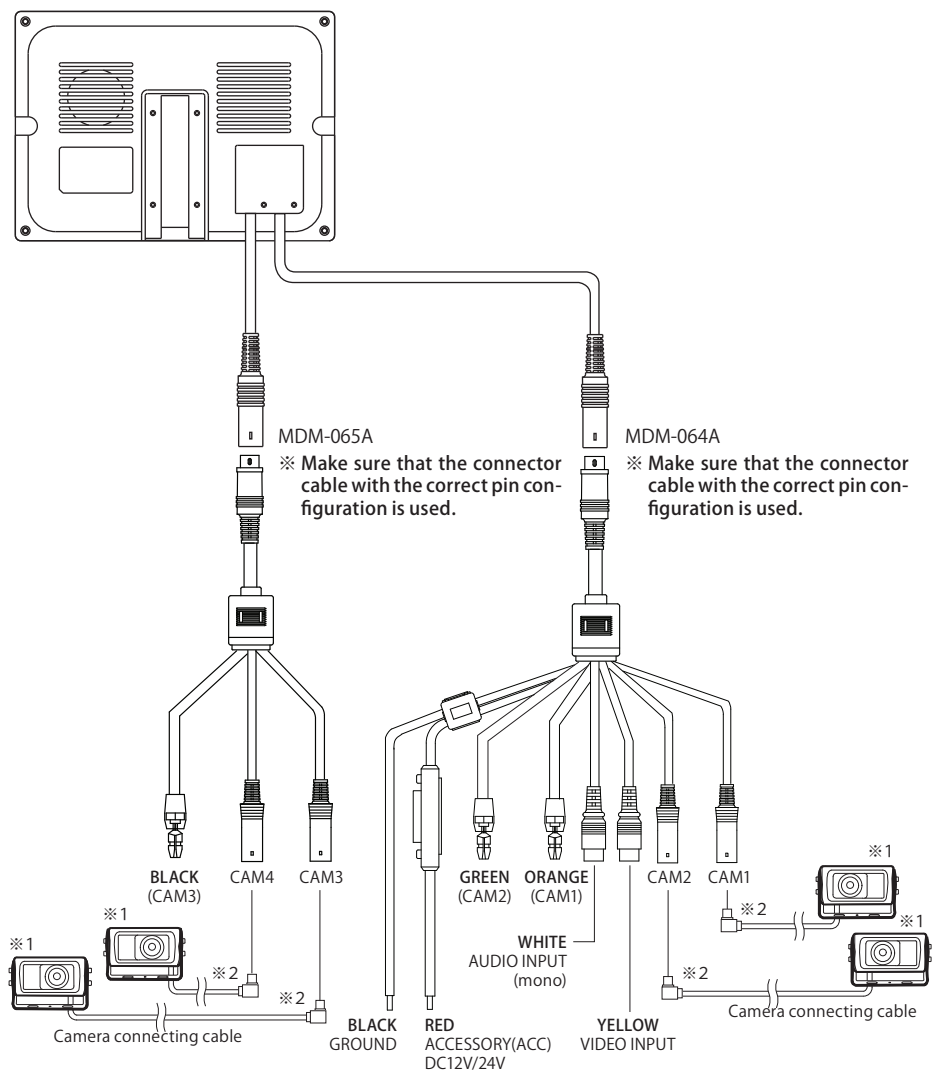
● MARKER ADJUSTMENT (Adjusting the Bumper position)

- ① Press MENU button on the monitor or SETUP button on the remote control five times, select MARKER ADJUST menu.
- ② Press MODE button on the monitor or ▲/▼ button on the remote control, select H / V.
(H: horizontal / V: vertical)
- ③ Press ▲ / ▼ button on the monitor or ◀/▶ button on the remote control, and switch marker pattern. (H = -10~+10, V = -12~+12, Default setting: H=0, V=0)
- ④ After 10 seconds, set up screen disappears, and set up finishes.

※ If there is no button operation, set up screen disappears even during set up process.



8. CONNECTIONS



※1 Use Clarion Cameras only.

※2 A camera connecting cable, sold separately, is required for connecting the camera.

■ Please ensure that the correct trigger wires are connected to the corresponding cameras.

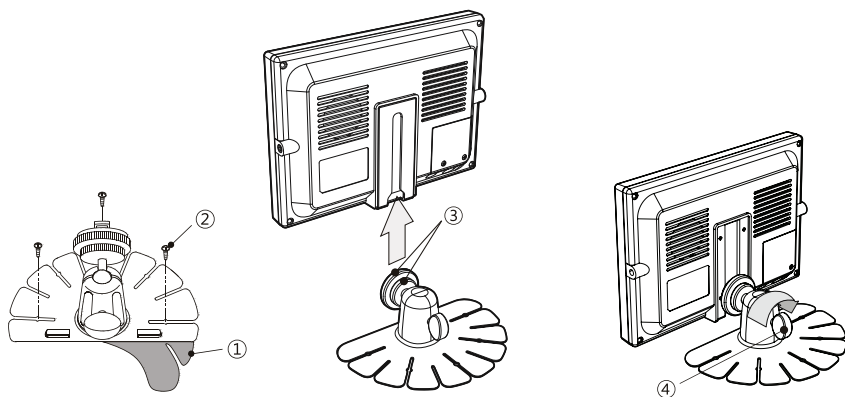
ORANGE (CAM1, priority) Standby + (for rear-view)

* Connect this cable to "+" of Reverse gear lamp.

GREEN, BLACK (CAM2, CAM3) Standby + (for side-view)

* Connect this cable to "+" of Left (green) • Right (black) turn signal lamp.

9. INSTALLATION



- (1) Clean the surface where the stand is to be installed and press stand firmly in place after removing protective tape from stand bottom.
- (2) Fix the stand with enclosed screws.
- (3) Assemble the monitor to the stand and adjust it to the correct viewing angle.

10. TROUBLESHOOTING

Problem	Cause	Measure
No image is displayed.	Is camera connected properly?	Check the wiring to the camera and the camera connection.
Power does not turn on.	Is power cable connected properly?	Check the wiring.
	Is a fuse blown out?	Replace with a fuse of the same amperage (3A)
Color is washed-out.	Operating environment is inappropriate.	Temperature in the vehicle is below -10°C or over 60°C. Check to see that the temperature in the vehicle is appropriate (around 25°C).

11. SPECIFICATION

LCD Panel	Screen size	7 inch	
	Resolution	800(W) x 3(RGB) x 480(H)	
	Brightness	450cd/m ²	
	Contrast ratio	500:1	
	View angle(L/R/U/D)	60/60/60/40	
Power supply	Voltage	DC12V-24V (10.8V-31.2V)	
	Current	Approx. 900mA (DC14V, in case of connecting four sets of camera (CC-2000).	
Frequency	Horizontal	15.734KHz (NTSC)	15.625KHz (PAL)
	Vertical	60Hz (NTSC)	50Hz (PAL)
Input signal	Video signal	Composite video signal	
	Audeo signal	MONO	
Speaker		0.5 Watt max.	
Language display selection		8 Language	
User controls		AV, MODE, ▲, ▼, MENU, POWER	
Operating temperature		-10°C to +60°C / 14°F to +140°F	
Storage temperature		-20°C to +70°C / -4°F to +158°F	
Dimension		174(W) x 125(D) x 27(H) (mm) / 6.85(W) x 4.92(D) x 1.06(H) (inch)	
Weight		480g / 16.93oz (monitor set only)	

※ The design and specifications are subject to change without notice.

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