

clarion

Owner's manual & Installation manual

Mode d'emploi et manuel d'installation

Manual de instrucciones y manual de instalación

Manuale dell'utente e manuale di installazione

Bedienungsanleitung und Installationshandbuch

Bruksanvisning och installationsmanual

CJ-7600E

7.0" WIDE TFT LCD COLOR MONITOR

MONITEUR COULEUR TFT 7,0" DE LARGE

MONITOR ANCHO TFT LCD COLOR DE 7,0"

AMPIO MONITOR A COLORI LCD TFT DA 7"

7.0"-BREITBILD-TFT-LCD-FARBMONITOR

7.0 "WIDE TFT LCD FÄRGMONITOR



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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)
- ◆ 7 language display Selection
- ◆ DC 12V/24V
- ◆ Automatic illumination sensor
- ◆ Camra input (2 systems), main/sub-camera operating together
- ◆ A/V input (Video / Mono Audio)
- ◆ By connecting a camera box (EA-2182), input from a total of 5 cameras consisting of 4 cameras and a sub-camera is possible (sold separately)
- ◆ Opening and closing of the shutter camera can be fully controlled using the B/U cable

4. CONTENTS

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



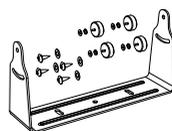
Monitor (1)



Monitor Cable (1)



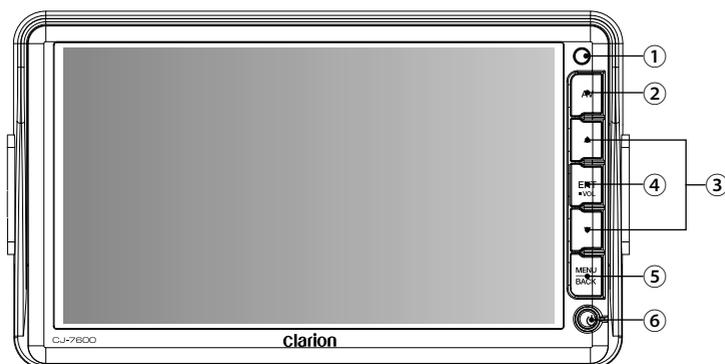
Manual (1)



U-Bracket (1)
Screw (8)

5. FUNCTION OF EACH PART

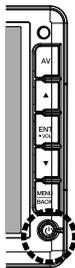
[Monitor]



① DIMMER SENSOR	Automatic brightness control sensor
② AV	Switch AUX
③ ▲▼	Switch camera inputs / Volume control / Set SUB-MENU
④ ENT (VOL)	Confirm button / Volume control setting menu display (press and hold) button
⑤ MENU / BACK	Switch MAIN-MENU / Return button
⑥ ⏻	Power ON / Stand-by

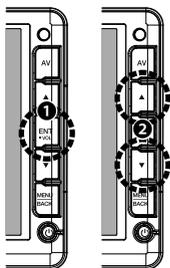
6. FUNCTION

1 Power On/Stand-by



Press POWER [POWER] button on monitor then the picture of the camera will be shown on the monitor.

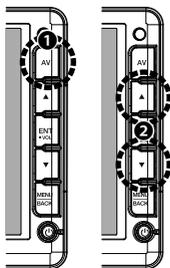
2 Volume control



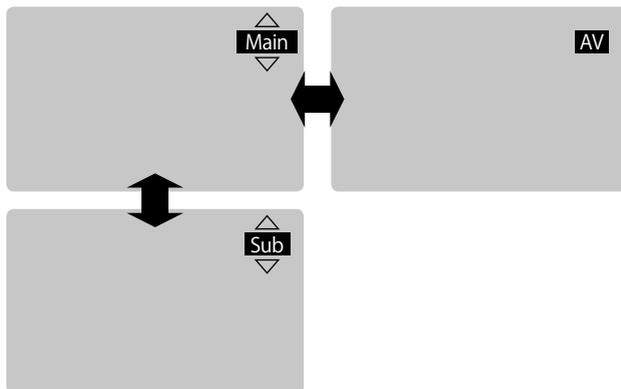
- 1 Press and hold the ENT (VOL) button in the AV or main camera screen to display the set volume.
- 2 The volume can be controlled with the ▲/▼ buttons.



3 Switch input video

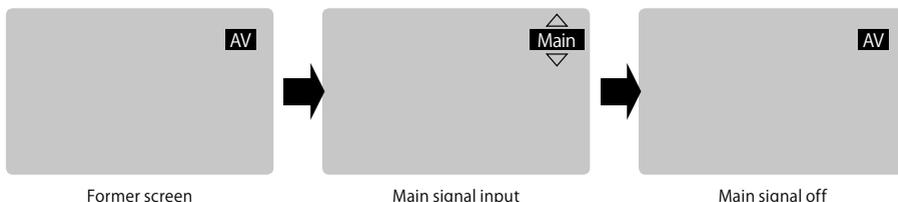


- 1 Press the AV button to switch to the AV (external input) screen and press it again to return to the previous screen.
- 2 Press the ▲/▼ buttons in the camera mode to switch to the Main/Sub screen.



4. Switch signal input screen (signal input priority order: main > sub signal)

- ① When a single signal (main, sub) is entered, the camera image corresponding to this is displayed. If the signal is terminated, the display returns to the previous screen.
- ※ When the hazard off terminal is connected to the left winker (sub-trigger terminal is connected to the right winker), even if a hazard signal is input, the system recognizes the hazard, and the display does not switch to the sub-camera image.



- ※ 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.
- ② When the main or sub signal image is displayed, pressing the ▲/▼ buttons will also switch between the main camera and sub-camera image.

7. SETTINGS

Common buttons when changing settings

- ① MENU/BACK button: Menu screen display/return to previous screen button

Genera: Volume/Language/To initial settings

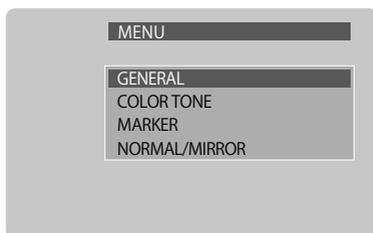
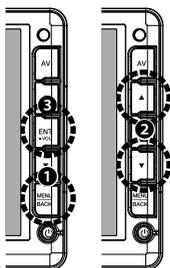
Color tone: Brightness/Tone/Vividness/Dimmer setting

Normal/Mirror: Camera Normal / Mirror mode settings

- ② ▲/▼ buttons: Selection/adjustment of each item

- ③ ENT(VOL) button: Confirm button

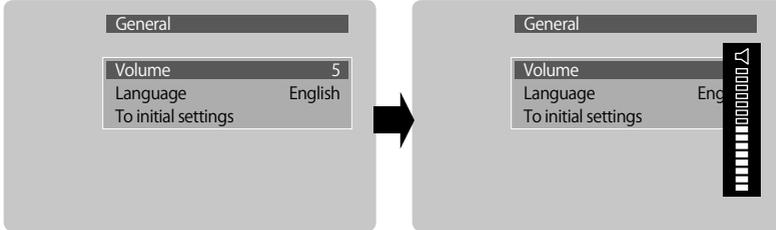
- ※ If the buttons are not pressed for 5 seconds, the settings will be saved even if they have not been completed and the menu screen will disappear automatically.



General

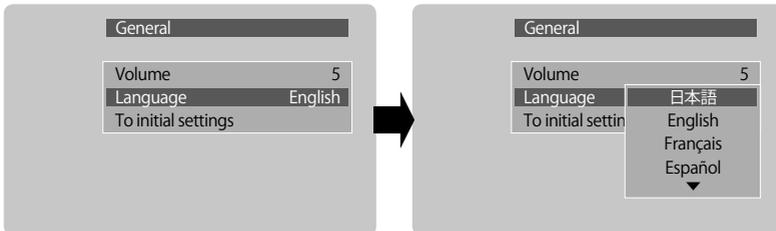
1) Volume control

- ① Select [Volume] in the [General] menu and press the ENT(VOL) button.
 - ② Press the ▲/▼ buttons to adjust the volume.
- ※ The volume can be adjusted between 0 and 15. The initial setting is 5.



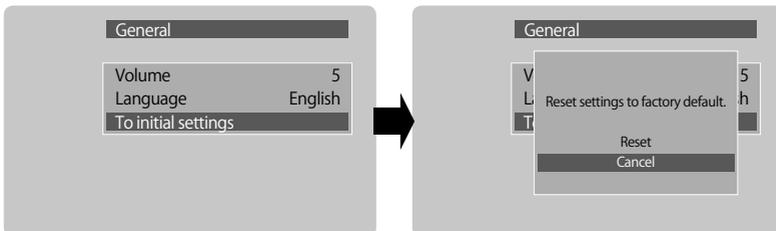
2) Language settings

- ① Select [Language] in the [General] menu with the ▲/▼ buttons and press the ENT(VOL) button.
 - ② Select 日本語/English/Français/Español/Italiano/Deutsch/Svenska with the ▲/▼ buttons and press the ENT(VOL) button to change the language.
- ※ It is set "English" from the factory.



3) To initial settings

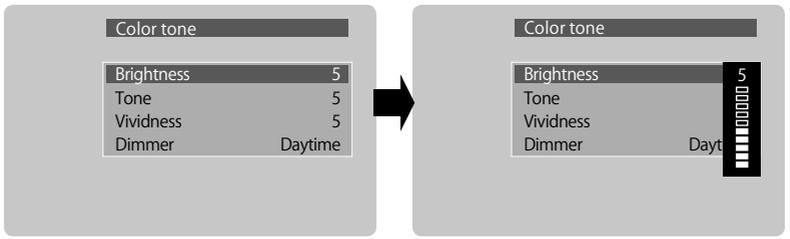
- ① Select [To initial settings] in the [General] menu with the ▲/▼ buttons and press the ENT(VOL) button.
 - ② Select [Reset] with the ▲/▼ buttons and press the ENT(VOL) button to automatically turn the power OFF and initialize the system to the default state when shipped.
- ※ With [Reset] selected, initialization will not be carried out even if the menu screen disappears when the buttons are not pressed for 5 seconds.



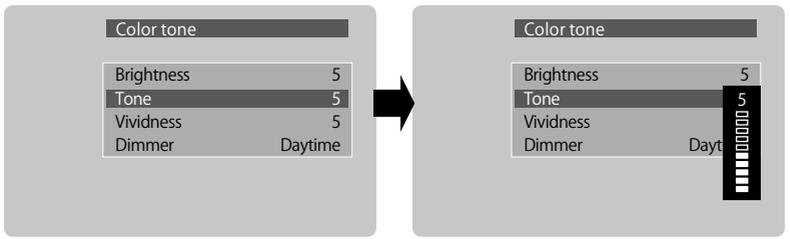
Color tone

- ① Select [Brightness], [Tone], [Vividness] and [Dimmer] in the [Color tone] menu with the ▲/▼ buttons and press the ENT(VOL) button. Press the ▲/▼ buttons to adjust the [Brightness], [Tone] and [Vividness].
- ② Select [Daytime], [Night], [Auto] and press the ENT(VOL) button to change the [Dimmer] setting.

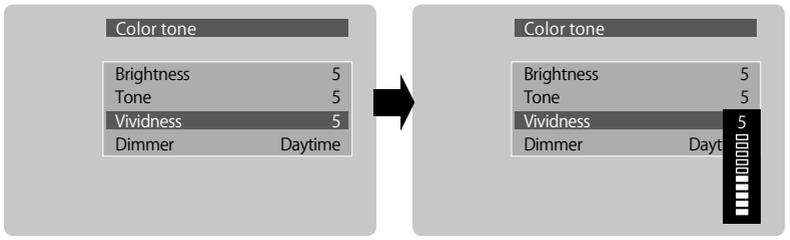
1) Brightness



2) Tone

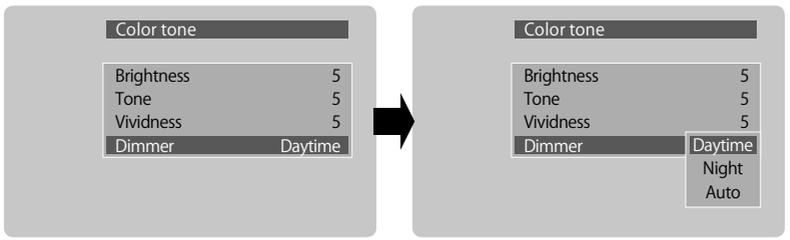


3) Vividness



4) Dimmer sensor setting

※ User can choose Daytime/Night/Auto. (Factory default setting is Daytime)



Marker

Warning

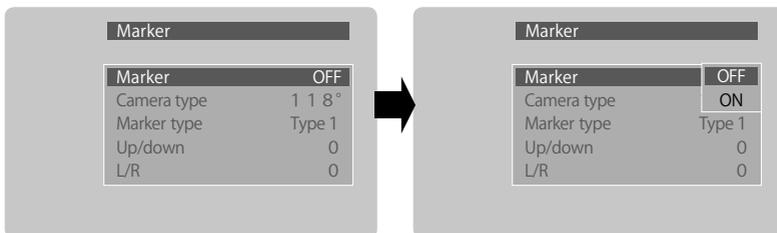
- The onscreen distance markers should be considered as a general reference to assist the driver in assessing the distances depicted on the screen. The distance markers have been designed based on the "back camera installation conditions" listed in the next section, but differences in vehicle design 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.

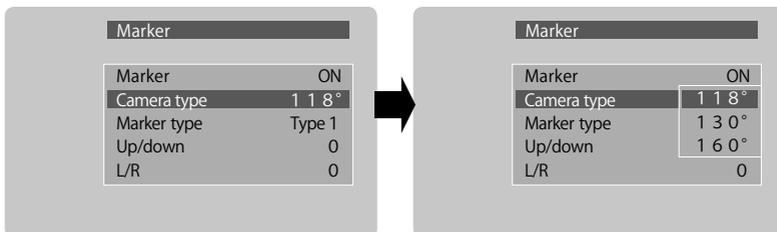
1) Marker

- ① Select [Marker] in the [Marker] menu and press the ENT(VOL) button.
 - ② Select [ON], [OFF] with the ▲/▼ buttons and press the ENT(VOL) button.
- ※ Only when the distance marker is [ON], the camera type and marker setting can be selected.



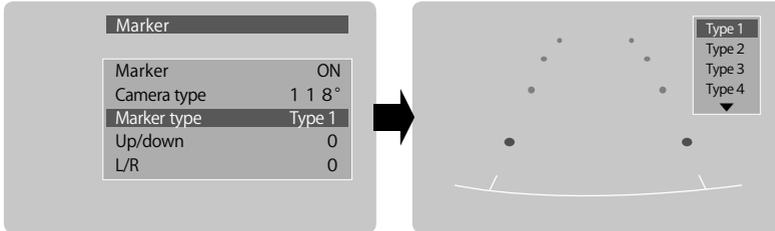
2) Camera type

- ① Select [Camera type] in the [Marker] menu and press the ENT(VOL) button.
 - ② Select [118°], [130°], [160°] with the ▲/▼ buttons and press the ENT(VOL) button.
- ※ If the camera angle of view is not in [Camera type], select an object near the field of view to adjust it.



3) Marker type (set the marker pattern)

- ① Select [Marker type] in the [Marker] menu and press the ENT(VOL) button.
- ② Select [Type 1] to [Type 7] with the ▲/▼ buttons and press the ENT(VOL) button.



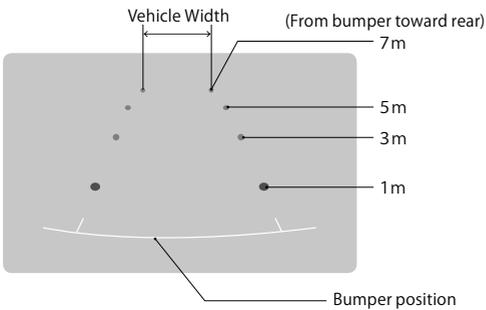
◆ Installation condition of back camera(distance marker input conditions)

Camera type: 118°, 130° Unit: m

Marker No. (Pattern)	Camera Install Height	Vehicle Width
Type 1	2.0	2.3
Type 2	2.5	
Type 3	2.8	
Type 4	3.0	
Type 5	3.0	2.5
Type 6	3.2 5	
Type 7	3.5	

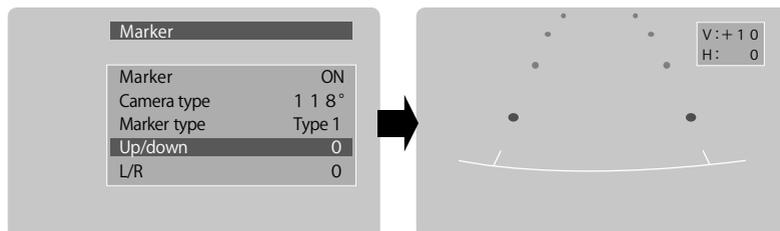
Camera type: 160° Unit: m

Marker No. (Pattern)	Camera Install Height	Vehicle Width
Type 1	0.5	2.3
Type 2	0.7	
Type 3	0.7	2.5
Type 4	0.9	2.3
Type 5	0.9	2.5
Type 6	2.5	2.3
Type 7	3.0	2.5

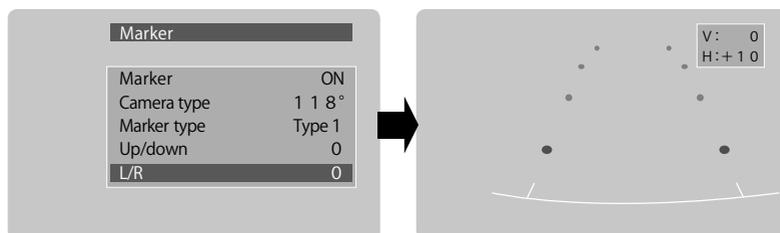


4) Up/down, Left/Right adjustment (adjust the bumper position of the car)

- ① Select [Up/down] in the [Marker] menu and press the ENT(VOL) button.
- ② Adjust the V (vertical movement) value with the ▲/▼ buttons (▲: Up, ▼: Down).
(V = -10 ~ +10, Default setting: V=0)



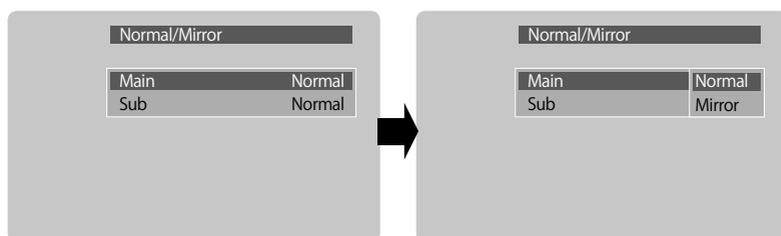
- ① Select [L/R] in the [Marker] menu and press the ENT(VOL) button.
- ② Adjust the H (horizontal movement) value with the ▲/▼ buttons (▲: Right, ▼: Left).
(H = -10 ~ +10, Default setting: H=0)



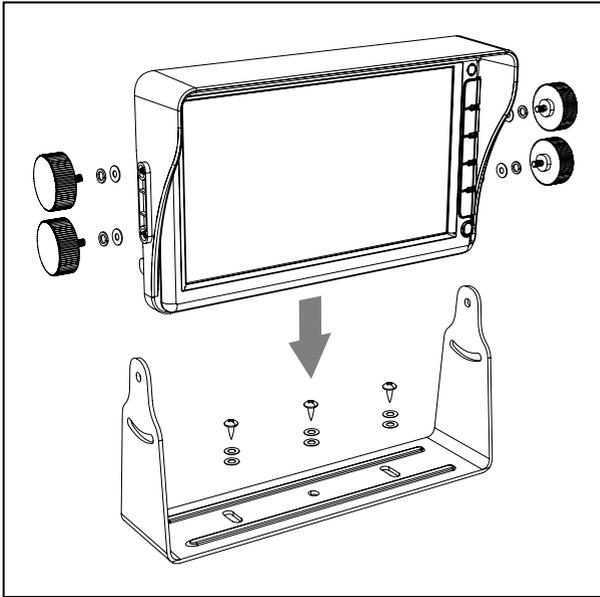
※ If there is no button operation, set up screen disappears even during set up process.

Camera Normal/Mirror mode setting

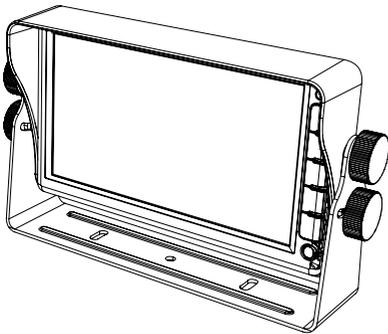
- ① Select [Main] or [Sub] in the [Normal/Mirror] menu and press the ENT(VOL) button.
 - ② Select [Normal] or [Mirror] with the ▲/▼ buttons and press the ENT(VOL) button to invert the screen left to right.
- ※ It is set "Normal" mode from the factory.



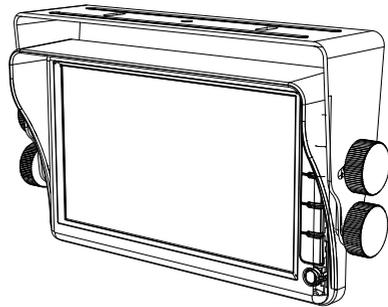
8. INSTALLATION (U-Bracket)



1. Please ensure that the monitor is installed with enough room for heat to dissipate. Install the monitor stand with enclosed screws as per the picture.
2. Fix the monitor to the monitor stand firmly.

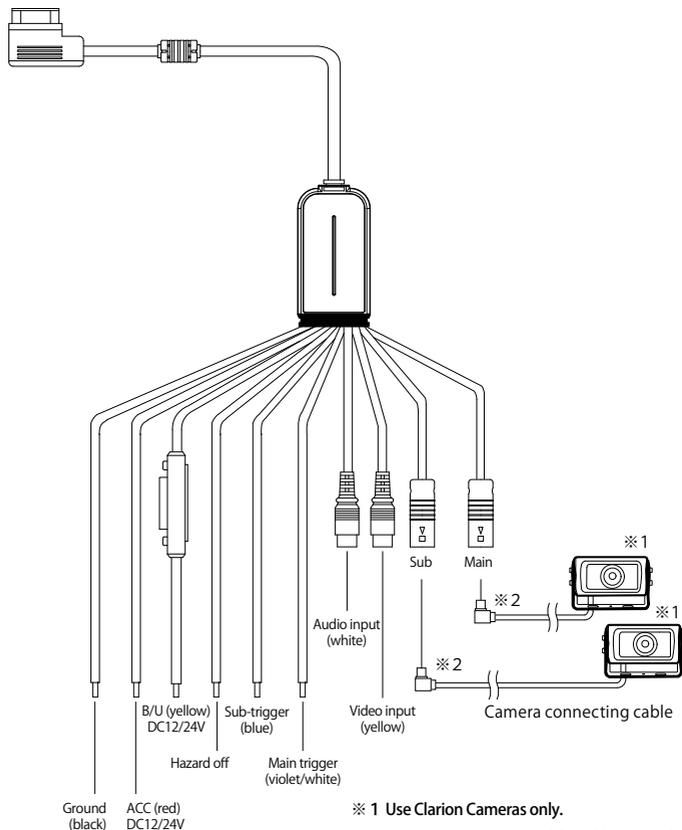
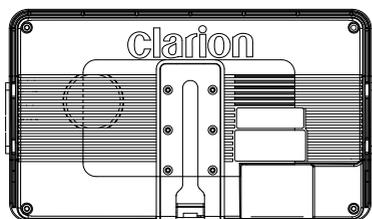


Standard Installation



Ceiling Installation

9. CONNECTIONS



- ※ 1 Use Clarion Cameras only.
- ※ 2 A camera connecting cable, sold separately, is required for connecting the camera.

- When the B/U terminal is connected to the car's B/U:
 - When ACC is OFF, the shutter of the shutter camera closes automatically.
- When the B/U terminal is connected to the car's ACC (car with no B/U):
 - Even when ACC is OFF, the shutter of the shutter camera will not close automatically.
 - To close the shutter, turn ACC OFF after setting the monitor to "Standby".
 - Make sure the B/U terminal is connected to the car's ACC together with the ACC terminal.

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 (5A)
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	400cd/m ²
	Contrast Ratio	500 : 1
Input Signal	Video Signal	Composite video signal
	Audio Signal	MONO
Power Supply	Voltage	DC12 ~ 24V (10.8V~31.2V)
	Current	Approx.200mA (DC24V, in case of connecting four sets of camera CC-6500)
Speaker		0.5W max
Language Display Selection		7 Language
Operating Temperature		-10°C ~ +60°C
Storage Temperature		-20°C ~ +70°C
Dimension		193.8 (W) x 113.5 (H) x 50.3 (D) mm
Weight		Approx.428g (monitor set only)

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

Clarion Co., Ltd.

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