



## Owner's / Installation Manual

Performance Series

M7104

**LCD COLOR MONITOR**



Please read this manual thoroughly before operating the unit, and keep it for further reference.



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### PRECAUTIONS

#### Storage and keeping

Do not expose the monitor to excessive heat or cold. The storage temperature of this device is  $-30 \sim +75$  C, and the operating temperature is  $-20 \sim +60$  C. The Humidity is Rh90%.

Never use this device near a bathtub, wash basin, kitchen, damp basement, swimming pool or similar place.

Never use this device in environments with excessive moisture, dust or smoke.

Avoid dropping or striking this device.

Never puncture, scratch or use abrasive cleaning materials on this device.

The monitor is not designed to be waterproof.

#### Operating Precautions

Make sure all cables are connected properly observe polarity. Improper cable connections may damage the monitor. Remove the power cable connections when you do not intend to use the unit.

#### Warning!

1. High voltage is present within the monitor. The opening of the case should be by professionals.
2. Do not watch the video while driving unless you are monitoring the rear view camera display.

#### Special Notice

Occasionally, a few highlights or dark spots may occur on the LCD screen. This is a very common phenomenon in active matrix display technology, and doesn't necessarily indicate any defects or faults. Never try to repair this device by yourself. In case of any problems, please turn off the display at once and notify our company or authorized dealer. The monitor is a complex device. Any disassembly or modification may lead to damage and void the warranty.

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### PRECAUTIONS

#### Maintenance

1. Remove all the cable connections from the monitor before cleaning the unit.
2. Use a mild household detergent and clean the unit with a slightly damp, soft cloth. Never use strong solvents such as thinner or benzene, as they might damage the finish of the device.



This symbol 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 risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



This symbol is intended to alert the user not to waste electrical and electronic equipment.



#### CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your warranty and necessitate expensive repairs.

#### Declaration of conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: This device may not cause harmful interference. This device must accept any interference received, including interference that may cause under desired operation.



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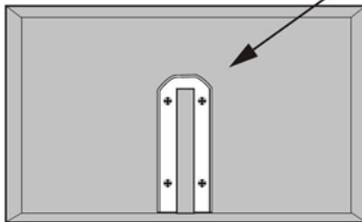
### M7104



#### Mounting the Monitor

- 1) Select a location allowing 2" space between monitor and walls, cabinets, or other objects to allow adequate air circulation around it. Avoid enclosed spaces, areas with excessive vibration or subject it to severe impacts.
- 2) Never use this device in environments with excessive moisture, dust or smoke. Do not place cables where they may be pinched or stepped on. Monitor is not designed to be waterproof.
- 3) The device may be powered by a 12 or 24 volt automotive battery or vehicle electrical system.
- 4) Make sure all cables are connected properly, observe polarity. Improper cable connections may damage the monitor. Remove the power cable connections when you do not intend to use the unit.

Attach bracket to monitor here



Supplied Accessories



Pinout from the Monitor side:



Pin1= +12V (Power)  
Pin2= GND (Ground)  
Pin3= Audio  
Pin4= Video



M7104 Camera Harness



M7104 Power/Trigger Harness



- Red—Fused ACC power 12-24VDC
- Black—Ground
- Brown—Trigger CAM 1 (12-24VDC)
- White—Trigger CAM 2 (12-24VDC)
- Yellow—Trigger CAM 3 (12-24VDC)
- Blue—Trigger CAM 4 (12-24VDC)

Labeled CAM 1—CAM 4

Monitor provides power to each camera through this harness.

#### Installation Notes: Trigger wire function

- All 4 Camera connections are powered from the monitor and All work whether or not the trigger wire is connected . When using the monitor, you may cycle between them to monitor either CAM 1 & CAM 2, OR CAM 3 & CAM 4, OR ALL 4, OR 1-3. When the trigger wire is energized, the monitor automatically switches to view THAT Camera. When voltage is removed from the trigger wire, monitor returns to previous view.
- If the monitor is off, when the trigger wire is energized, the monitor will turn on to show THAT Camera. This safety feature is particularly useful for night driving, as the monitor light can be distracting to the operator.



# CONVOY TECHNOLOGIES

*See Everything*

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### M7104 Operation



- (1) - button – For adjusting Down
- (2) + button – For adjusting UP
- (3) MENU – Access menu, select items
- (4) CAM – Switches between all cameras Connected to Monitor one at a time.
- (5) MODE – Single View/Split view/Quad view selectable
- (6) POWER – Turns monitor On and Off.
- (7) Power indicactor Light.
- (8) Loudspeaker

Pressing MENU shows the MAIN MENU. MENU also will select and or change a feature's ON/OFF status. If a feature is adjustable, after selecting it with MENU, use +/- to adjust.

- +/- buttons adjust Volume. After pressing MENU, they will highlight a feature, hit MENU to select that feature, then either MENU again to toggle on or off, or +/- to adjust the feature shown.
- To adjust the Aspect Ratio from 16:9 to 4:3, select "ZOOM" in the "OPTION" menu and use "MENU" to toggle one or the other.
- If installing monitor upside down, select "Rotation" in the "OPTION" menu and use "MENU" to adjust (LU = left-up, LD = left-down, RD = right-down, RU = right-up) RU is the normal view, LU is the mirror view. LD and RD if monitor is upside down from the ceiling.

#### Using the Remote Control

Pressing MENU will reveal the MAIN MENU page. Use  $\updownarrow$  buttons to select a feature, and  $\leftrightarrow$  buttons to adjust.

- $\leftrightarrow$  buttons adjust Volume. After pressing MENU, they adjust the feature shown. Use  $\updownarrow$  buttons to select the feature on a MENU page.
- To adjust the Aspect Ratio from 16:9 to 4:3, select "MENU", "OPTION", "ZOOM", then menu will change it.
- When installing monitor upside down, select Rotation in the OPTION menu and use MENU to adjust (LU = left-up, LD = left-down, RD = right-down, RU = right-up) RU is the normal view, LU is the mirror view. LD and RD if monitor is upside down from the ceiling.
- CH buttons 1-4 select that camera.



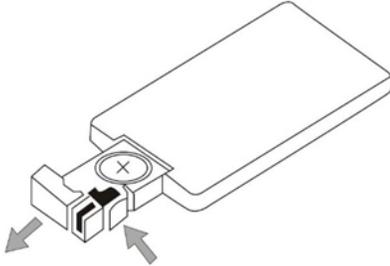
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#### Replacing the Remote Batteries



#### ⚠ Notice

1. Please align the remote control with the infrared-receiving window on the monitor to operate.
2. Never disassemble the remote control or allow it to drop, or become wet.
3. Press the control buttons firmly. Allow 2 seconds for the picture to change.

#### Troubleshooting

Symptom	possible Causes/Solutions
No picture. No sound	Improper connection of automobile adapter. Use of un-authorized power supply. Power switch is on OFF position
No picture	Check whether locking cable is properly connected.
No sound	Check whether locking cable is properly connected, or the sound volume is set too low
Dark picture	Check whether brightness and contrast are adjusted correctly; Check whether the environments temperature is too low.
No color	Adjust the color settings.
Upside down or lateral inverted picture	Use the remote/ MENU-OPTION-ROTATION button to set proper orientation
No reversing function (i.e. Picture)	Check the wires (black/ red/ Green) that may be loose

Specifications	Warranty and Support Information
<b>7" TFT-LCD Color Monitor</b> Audio Output: 0.5 W Loudspeaker: 1ea 15x40mm Power Supply: Automobile Storage Battery (10-32V) Power Consumption: 4W Max, 0.33amps Video Input: 4 Resolution: 800x3 (RGB), 480 Contrast: 500:1 Brightness: 510cd/m <sup>2</sup> Viewing Angle: 50°-U, 70°-D, R/L 70° Operating Temperature: -20°C—+50°C	<p>Subject to the provisions described below, this CT product is protected for 1 year against defects in material and workmanship. Should a product fail to perform as described above within the warranted period, it will be repaired or replaced with the same or functionally equivalent product by CT. This warrant does not apply if, in the judgement of CT, the product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained in a manner not conforming to product manual instructions, has been modified in any way. Repair by anyone other than CT or an approved agent will void this warranty. The maximum liability of CT under this warranty is limited to the purchase price of the product covered by the warranty. All defective products should be returned to CT with shipping charges pre-paid. CT will not accept collect shipments.</p>