OWNER'S MANUAL

- PLEASE READ CAREFULLY BEFORE USING AND KEEP WELL.

7" TFT LCD COLOR
Rear Vision Monitor

Model: ECL-700

- Design and Specifications are subject to change without notice.
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ECL-700 (7” TFT LCD monitor) is designed for the automotive rear vision system.

- High Resolution 7” TFT LCD panel
- Free Input Voltage (DC 10V ~ DC 32V)
- NTSC / PAL Compatibility
- 2 Camera Inputs
- Automatic Picture Display (2 Triggering functions)
- Automatic Brightness Sensor (DAY/NIGHT)
- Built-in Speaker
- OSD with μ-com
SUGGESTIONS

TFT LCD Color Monitor

- Safety
  - Use only DC 10V to 32V.
  - In case that dust or liquid was soaked into the case, please turn off power and consult the experienced technician before using.
  - Do not cover air duct for preventing from considerable rise in temperature.

- Installation
  - Do not install the unit in an extremely hot or humid place (radiator, air duct, etc.) or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

- General cleaning information
  - If your vehicle has been parked in direct sun light resulting in a considerable rise in temperature inside the vehicle, allow the unit to cool off before operating.
  - Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the unit.
1. POWER

- **STAND-BY mode**
  - When Red LED is turned on, it indicates the power is applied and it is on stand-by mode.
  - The monitor is not turned off until the ignition key is at off position.

- **POWER-ON mode**
  - Press POWER button to turn the monitor on.
  - When the monitor is on, all buttons are backlit (Green LED).
  - Press POWER button to turn the monitor off.

  * When the trigger signal is activated, the selected source’s image will be displayed on the monitor screen automatically.

2. -/+ 

- **Use + / - button to adjust speaker volume.**
  - Press - to decrease speaker volume.
  - Press + to increase speaker volume.

- **Use + / - button to select the options in SETUP MENU mode.**
3. UP/DN

- Use UP/DN button to adjust Brightness, Contrast, Color or Tint level.
  - Press UP button to increase Brightness, Contrast, Color or Tint level.
  - Press DN button to decrease Brightness, Contrast, Color or Tint level.

- Use UP/DN button to move cursor upward or downward in SETUP MENU mode.

4. SOURCE

- Use SOURCE button to select the display image.
  (CAM1 ↔ CAM2 ↔ CAM1 ↔ CAM2...)  
- Use SOURCE button to select the items that have sub-menus in SETUP MENU.

5. MENU

- HOT KEY Function
  - Press MENU button to adjust Bright, Contrast, Color or Tint

  ![Diagram of menu options]

  - Short Key (less than 0.5sec)
  - Change the level
  - BRIGHT
  - CONTRAST
  - COLOR
  - PAL MODE
  - NTSC MODE
  - TINT
SET UP MENU
- PRESS MENU BUTTON FOR A WHILE (OVER 2 SEC.) TO ENTER SETUP MENU.
- SELECTABLE OSD MENU DISAPPEARS WITHIN 5 SECONDS IF THERE IS NO NEW BUTTON PRESSED.

1. NORMAL / MIRROR
- Each camera’s Normal / Mirror view can be selected.

2. TRIGGER DELAY
- 2 Trigger signals can be connected and each trigger source (1CAM, 2CAM) can be selected.
- When the trigger signal is activated, the selected source's image will be displayed on the monitor screen.
- Each trigger's delay time can be adjusted from 0 sec to 20 sec.

3. CAMERA NAME

- Each camera can be named and the selected camera name is displayed via OSD.

4. SCALE MODE

- Different scale modes (SCALE1, SCALE2, SCALE3, SCALE4) can be selected for CA1 ~ CA2.
- SCALE 1 and SCALE 2 can be adjusted.
- When the trigger signal is activated, the selected scale is displayed on the monitor screen.
* This is the just electrical scale that is measuring distance from the vehicles.
5. ADVANCED MENU

5.1 DISPLAY

- FULL
  - Display the image in the ratio of 16:9.

- NORMAL
  - Display the image on the screen in the ratio of 4:3.

5.2 UP/DOWN

- Converted image display (top and bottom)
5.3 DAY/NIGHT CONTROL
- DAY/NIGHT: Select DAY/NIGHT ON / OFF / AUTO
- DAY/NIGHT LEVEL: Adjust the sensitiveness of DAY/NIGHT LEVEL.
- DAY/NIGHT BRIGHT: Adjust the BRIGHTNESS level.

5.4 AUTO POWER
- When "ON" is selected, turning the ignition key on leads the monitor to POWER-ON mode.
- When "OFF" is selected, turning the ignition key on leads the monitor to STAND-BY mode.

6. DAY/NIGHT SENSOR
- **Automatic Brightness Control**
  - The brightness of the monitor is adjusted automatically with the CDS accordingly to the circumstance.
  
  (It works only when DAY / NIGHT option is set as "AUTO" in menu.)
- Install the monitor on a place which can stand more weight than 5 kg.
  - Clean the place before installation.
  - Remove the protective paper covering the bottom of the bracket.
  - Stick the provided bracket on the surface and fix it firmly with the screws.

- Adjust the angle of the monitor and fasten the handle screws strongly.
CAMERA 1.
(Not supplied)

CAMERA 2
(Not supplied)

to POWER

Power cable (supplied)

Power input lead (red)

Ground wire (black)

input lead (green)

input lead (white)

12V or 24V power terminal which is energized with the ignition key in the accessory position

To a metal point of the car

Trigger 1

Trigger 2

POWER/TRIGGER WIRE FUNCTIONS

<table>
<thead>
<tr>
<th>REF</th>
<th>WIRE COLOR</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RED</td>
<td>POWER IN DC (10V to 32V)</td>
</tr>
<tr>
<td>2</td>
<td>GREEN</td>
<td>TRIGGER 1</td>
</tr>
<tr>
<td>3</td>
<td>WHITE</td>
<td>TRIGGER 2</td>
</tr>
<tr>
<td>4</td>
<td>BLACK</td>
<td>GROUND</td>
</tr>
</tbody>
</table>
**ECL-700**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power input</td>
<td>DC 10V–32V</td>
</tr>
<tr>
<td>Power cons.</td>
<td>Max 15 Watt.</td>
</tr>
<tr>
<td>Video system</td>
<td>NTSC, PAL signal Compatible</td>
</tr>
<tr>
<td>Sync. System</td>
<td>Internal</td>
</tr>
<tr>
<td>LCD panel size</td>
<td>7 inch diagonal color</td>
</tr>
<tr>
<td>Field of view</td>
<td>Top: 35°, Bottom: 15°, Left: 50°, Right 50°</td>
</tr>
<tr>
<td>Screen size</td>
<td>154(W) X 87(H)mm</td>
</tr>
<tr>
<td>Resolution</td>
<td>1440(W) X 234(H)</td>
</tr>
<tr>
<td>Color configuration</td>
<td>R.G.B. Stripe</td>
</tr>
<tr>
<td>Auto con./bright.</td>
<td>Day &amp; Night sensor</td>
</tr>
<tr>
<td>O.S.D control</td>
<td>Bright, Contrast, Color, Tint, CA select (CA1/CA2)</td>
</tr>
<tr>
<td></td>
<td>Mirror/Normal, Scale on/off, Volume</td>
</tr>
<tr>
<td></td>
<td>Day/Night mode selector</td>
</tr>
<tr>
<td>Power connecter</td>
<td>Red – Positive DC 10V–DC 32V</td>
</tr>
<tr>
<td></td>
<td>Black – Ground</td>
</tr>
<tr>
<td></td>
<td>Green – Trigger 1 (CA1) DC 12V or DC 24V</td>
</tr>
<tr>
<td></td>
<td>White – Trigger 2 (CA2) V1+V or DC 1+DC</td>
</tr>
<tr>
<td>Speaker</td>
<td>Approx. 40 x 20mm, impedance: 8Ω, 0.2 watt max.</td>
</tr>
<tr>
<td>Finish</td>
<td>Dark Gray (Heat resistant–ABS)</td>
</tr>
<tr>
<td>Operating temp.</td>
<td>−10°C ~ +50°C (14°F ~ 122°F)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>−25°C ~ +80°C (−13°F ~ 176°F)</td>
</tr>
<tr>
<td>Ambient condition</td>
<td>Indoor use only</td>
</tr>
<tr>
<td>Vibration</td>
<td>5.5G</td>
</tr>
<tr>
<td>Dimensions</td>
<td>197(W) X 138(H) X 32.2(D) mm</td>
</tr>
<tr>
<td></td>
<td>7.75(W) X 5.43(H) X 1.3(D) inch</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 650g</td>
</tr>
<tr>
<td>Supplied acc’y</td>
<td>Mounting bracket (1)</td>
</tr>
<tr>
<td></td>
<td>Screw kits (1)</td>
</tr>
<tr>
<td></td>
<td>Power cord (1)</td>
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<tr>
<td></td>
<td>Instruction manual (1)</td>
</tr>
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</table>

**SPECIFICATIONS**

- Day/Night mode selector
- Supplied acc’y:
  - (1) Mounting bracket
  - (1) Screw kits
  - (1) Power cord
  - (1) Instruction manual
THIS SYMBOL MEANS DO NOT DISPOSE OF AS MUNICIPAL WASTE. RE-USE OR RECYCLE WHEREVER POSSIBLE. ELECTRICAL / ELECTRONIC COMPONENTS MAY CONTAIN SUBSTANCES WHICH ARE HARMFUL TO THE ENVIRONMENT. FOR ENVIRONMENTALLY SOUND METHODS OF DISPOSAL, PLEASE CONTACT YOUR LOCAL GOVERNMENT AUTHORITY.