Read this manual carefully before operating.
Please recharge the battery before your first time use.
Connection method
Model No.: CR110-7

Model No.: CR110-7A
Model No.: CR110-7B, 7C

Model No.: CR110-7J, 7P, 7Q

7 inch TFT LCD color monitor
Compliant (Model No.: CR110-7, 7A, 7B, 7C, 7J, 7P, 7Q)

1. LED ON/OFF BUTTON
2. AV SELECTOR BUTTON
3. MENU
4. DOWN SELECTOR
5. UP SELECTOR
6. MENU UP/DOWN SELECTOR
7. POWER SWITCH
**Technical parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display size</td>
<td>7&quot;</td>
</tr>
<tr>
<td>Standard</td>
<td>PAL / NTSC</td>
</tr>
<tr>
<td>Display model</td>
<td>AT070TN01 V1 A070FW03 V2</td>
</tr>
<tr>
<td>Pixel</td>
<td>800*480</td>
</tr>
<tr>
<td>Display screen (inches)</td>
<td>65/65/40/65</td>
</tr>
<tr>
<td>Brightness</td>
<td>200 Above</td>
</tr>
<tr>
<td>Specifications (mm)</td>
<td>189<em>122</em>24</td>
</tr>
<tr>
<td>Weight (g)</td>
<td>425</td>
</tr>
<tr>
<td>Heavy video</td>
<td>1 Video input / 1 Video out</td>
</tr>
<tr>
<td>Power supply mode</td>
<td>12V Input / 12V out</td>
</tr>
<tr>
<td>Power consumption</td>
<td>6W+2W</td>
</tr>
<tr>
<td>Function menu</td>
<td>English/中文</td>
</tr>
<tr>
<td>Working temperature</td>
<td>-10～+50</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20～+60</td>
</tr>
<tr>
<td>Display type</td>
<td>CCD/CMOS 600 / 700 / 800</td>
</tr>
<tr>
<td>Power consumption</td>
<td>CCD/CMOS 2.5W</td>
</tr>
<tr>
<td>Standard</td>
<td>PAL / NTSC (optional)</td>
</tr>
<tr>
<td>Visibility at night</td>
<td>5-6</td>
</tr>
<tr>
<td>Lamp type</td>
<td>white light / IR light (optional)</td>
</tr>
<tr>
<td>Lens size</td>
<td>CCD/CMOS 3.6mm</td>
</tr>
<tr>
<td>Visual angle</td>
<td>CCD/CMOS 90°</td>
</tr>
</tbody>
</table>

**Camera**

Model NO.: 1. 20m,30m,50m cable optional (up to 300 meters is available)

**CR-006**
- 2. white light /IR light (optional)
- 3. video output
- 4. DC 12V input (female)
- 5. DC 12V input (male)

Model NO.: 1. 20m,30m,50m cable optional (up to 300 meters is available)

**CR-006A**
- 2. white light /IR light (optional)
- 3. video output
- 4. DC 12V input (female)
- 5. DC 12V input (male)

Model NO.: 1. 20m,30m,50m cable optional (up to 300 meters is available)

**CR-006B**
- 2. white light /IR light (optional)
- 3. video output
- 4. DC 12V input (female)
- 5. DC 12V input (male)
Model NO.∶ 1. 20m,30m, 50m cable optional (up to 300 meters is available)
CR-006C
2. white light /IR light (optional)
3. video output
4. DC 12V input (female)
5. DC 12V input (male)

Model NO.∶ 1. 20m,30m, 50m cable optional (up to 300 meters is available)
CR-006J
2. white light /IR light (optional)
3. video output
4. DC 12V input (female)
5. DC 12V input (male)

Model NO.∶ 1. 20m,30m, 50m cable optional (up to 300 meters is available)
CR-006P
2. white light /IR light (optional)
3. video output
4. DC 12V input (female)
5. DC 12V input (male)

Model NO.∶ 1. 20m,30m, 50m cable optional (up to 300 meters is available)
CR-006Q
2. white light /IR light (optional)
3. video output
4. DC 12V input (female)
5. DC 12V input (male)

Remote control

1 Compliant (Model No.: CR110-7, 7A, 7J, 7P, 7Q)

1. Mute
2. Power
3. AV1/AV2 switch
4. Adjustment -
5. Adjustment +
6. Menu
7. Mode switch
8. Time
9. P.P mode

2 Compliant (Model No.: CR110-7B, 7C)

1. Mute
2. Menu
3. -
4. AV1/AV2 switch
5. +
6. Power
7. Mode switch
8. Lamp switch
10. Rotating speed
12. Manual settings
13. Refresh
14. Manual rotation
15. Automatic rotation
This DVR function supports SD card max to 16GB;

Functions: manual camera, video; motion detection camera, video; motion detection ranges are: 1/16, 1/4 or full screen. Another timer recording function.
Format of Photo: JPEG, resolution 720x576;
Format of Video: AVI, QVGA(320x240), or DI(720X480);

Operation

1. LED light
2. Depth and temperature / Left
3. Speed / Right
4. OSD / Refresh
5. AUTO MANU

a. Press the button MON/OFFN to turn on the DVR function. Press the button MON/OFFN more than 5 seconds to shut off the DVR function.

Step 1: Press the Menu button to enter the setup menu, then press the Menu key 's to "confirm". Other keys such as UP / DOWN / LEFT / RIGHT keep function themselves. Please select "Exit" to exit DVR and press the "Menu" key to confirm exit.

Step 2: Some working status of the DVR can be set through selection of the various parts in the contents of a menu setting step by step.
### Manual Capture

1. **Manual Capture**
   - 2. Master CH  >>>>>>  3. Photo 1
     - Exit
     - Photo 3
   - Exit
     - Movie
     - Movie Chip

### Auto Capture

1. **Auto Capture**
   - 2. Auto Capture  >>>>>>  3. ON
     - Exit
     - OFF
     - Exit

### Motion Detect

1. **Motion Detect**
   - 2. Range  >>>>>>  3. 1/2
     - Exit
     - 1/4
     - 1/16

### Advanced Setting

1. **Advanced Setting**
   - 2. Photo Quality  >>>>>>  3. High
     - Exit
     - Standard
     - Low

---

### Range

2. **Range**  >>>>>>  3. 1/2
   - Exit
     - 1/4
     - 1/16

---

### Timeslot

2. **Timeslot**  >>>>>>  3. 1 second
   - Exit
     - 3 second
     - 5 second

---

### Sensitivity

2. **Sensitivity**  >>>>>>  3. Low
   - Exit
     - Middle
     - High

---

### Movie Size

2. **Movie Size**  >>>>>>  3. QVGA
   - Exit
     - DI
     - EXIT

---

### Movie Quality

2. **PreRecord**  >>>>>>  3. Movie 5 seconds
   - Exit
     - Movie 10 seconds
     - OFF
     - Exit

---

### Movie 5 seconds

2. **Movie 5 seconds**
   - Exit
     - Movie 10 seconds
     - OFF
     - Exit
<table>
<thead>
<tr>
<th>Number</th>
<th>Function</th>
<th>Selection 1</th>
<th>Selection 2</th>
<th>Selection 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Set Time / Date</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>2</td>
<td>Set Time / Date</td>
<td>YY/MM/DD</td>
<td>00:00:00:01</td>
<td>YY/MM/DD</td>
</tr>
<tr>
<td>2</td>
<td>File Overwrite</td>
<td>OFF</td>
<td>EXIT</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TV output</td>
<td>NTSC</td>
<td>PAL</td>
<td>EXIT</td>
</tr>
<tr>
<td>2</td>
<td>Format Card SD</td>
<td>YES</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Beep</td>
<td>ON</td>
<td>OFF</td>
<td>EXIT</td>
</tr>
<tr>
<td>2</td>
<td>Set to Default</td>
<td>YES</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Disk Info</td>
<td>Free</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>FW Version</td>
<td>Free</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Photo Time Stamp</td>
<td>ON</td>
<td>OFF</td>
<td>EXIT</td>
</tr>
<tr>
<td>2</td>
<td>Movie Time Stamp</td>
<td>ON</td>
<td>OFF</td>
<td>EXIT</td>
</tr>
</tbody>
</table>
Operation

1. Read the instruction manual completely before operating this unit.
2. Open the lock of the plastic case carefully.
3. Place the rechargeable battery, and then connect the connector (for the battery charging only) and the battery. The red power cable and black ground cable should connect to red terminal and black terminal of the battery respectively.
4. Open the sunshade of the monitor; connect the cables between the battery and the monitor as above.
5. Connect the camera cables (as point 3).
6. Make sure all the cables be connected correctly, then press the POWER button of the monitor, you will get the picture.
7. According to your need, you can use the camera in different place.
8. For the convenience of the recharging, a leading line is equipped besides the back cover, and then it is no need to get the battery out when recharging is needed, and you just need connect the adaptor and the leading line together.
9. By adjusting the brightness, contrast, color, chroma on the monitor button or the remote control, you will get the perfect picture.
10. Please recharge the battery regularly; even you haven't use for a long time. To assure the battery can be used a longer time, please keep the battery having power in any time.

Important Information

Connecting Your Underwater Camera

1. The camera must not be located to look directly into the sun or any other bright light source as this will not only result in a poor image, but will eventually damage the electronics of the camera.
2. Areas with a high degree of contrast in the light levels require careful positioning of the camera to obtain the best image.
3. The best viewing angle is achieved by placing the camera in a position where it is looking down on the subject.
4. Additional lighting may be required if water quality is poor, or in low light conditions.
5. Always wash the camera in warm water and soap after use, to remove salt and other corrosive agents.
6. Always use appropriate water safety precautions when operating the Underwater Camera, and ensure appropriate level of supervision of children when near water.

Please Read The Following Manual Details Before Using

* Pay attention to dampproof for the high resolution.
* Don't break the LCD screen surface, and clean the surface by soft cloth if the screen dirty.
* Don't dismantle the unit by unprofessional.
* Push the unit L/R switch if find the letter reverse.
* Install the bottom side of the outer shell or inner side chamfer by customer's self-selection in accordance with bedframe.
# Troubleshooting Guide

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling picture</td>
<td>Monitor (horizontal control)</td>
<td>Replace monitor</td>
</tr>
<tr>
<td>Shrunk &amp; unstable picture</td>
<td>Monitor (low voltage)</td>
<td>Check voltage source for proper voltage</td>
</tr>
<tr>
<td>Black picture</td>
<td>Monitor</td>
<td>Check fuses, if ok, check voltage source for DC12V, or check monitor power assembly for loose or broken wires or connector... if above is ok, replace camera</td>
</tr>
<tr>
<td>White picture</td>
<td>Monitor</td>
<td>Check main system cable, make sure all connectors are mated properly. If ok, replace camera</td>
</tr>
<tr>
<td>White picture</td>
<td>Camera</td>
<td>Replace camera</td>
</tr>
<tr>
<td>Blurred picture</td>
<td>Road film, mud, water or Ice on camera lens</td>
<td>Clean camera</td>
</tr>
<tr>
<td>Moisture in camera</td>
<td>Camera</td>
<td>Replace camera, if not ok, ask for maintenance service</td>
</tr>
<tr>
<td>Engine noise or static lines</td>
<td>Monitor</td>
<td>Check ground and DC 12V source for solid connection. If not ok, call tech support for assistance</td>
</tr>
</tbody>
</table>