Read these instructions completely before operating this device.
# TABLE OF CONTENTS

1. The Figure Of The LCD Monitor And Specifications ...................... 1
2. The Figure Of The Underwater Camera And Specifications ............. 4
3. The Figure And Operation Description For Moder ..................... 8
4. Cautions ........................................................................ 10
5. Troubleshooting Guide .................................................... 11
1. The Figure Of The LCD Monitor And Specifications

1) The Figure Of The Monitor

1. Receiving window
2. AV1/AV2 Switch
3. Mode Switch
4. NA
5. Menu
6. Adjustment Key -
7. Adjustment Key +
8. Power

2) Specifications

Size of Screen: 7 Inch
Color system: PAL/NTSC
Input voltage: DC12V
Power: DC12V inside + and outside -
Receiving channel: AV/CAMERA
Consumption: less than 7.5W
Display Mode: 16:9
Contrast: 300:1
Brightness: 250cd/m²
Visible Angle: 65 degree from left to Right side,
40/65 degree from top to bottom.
Resolution: 480 (W) x RGB x 234 (H) = 336960 pixels
Storage Temperature: -20~65°C
Working Temperature: -10~50°C
Dimension: 189 (W) x 122 (H) x 24 (D) mm

3) The Figure Of The Remote Controller

1. Mute
2. Power
3. AV1/AV2 Switch
4. Adjustment Key -
5. Adjustment Key +
6. Menu
7. Mode Switch
8. Time
9. P. P mode
4) Indication Of Cable Connection

1. 4P Male Plug

2. DC12V Power Input (power supply from rechargeable battery)
   Video Input (signal output from camera)
   DC12V Power Output (power supply for camera)

3. DC12V Power Input (power supply from rechargeable battery)
   Video Input (signal output from camera)
   DC12V Power Output (power supply for DVR)
   DC12V Power Output (power supply for camera)

2. The Figure Of The Underwater Camera And Specifications

1) The Figure

1. 20m or 30m Cable
2. Underwater Camera With White LEDs
3. Stainless Steel Balast
2) Specifications

<table>
<thead>
<tr>
<th>Image/ Sensors/ Specifiction</th>
<th>1/5&quot; COLOR CMOS</th>
<th>1/4&quot; COLORCCD</th>
<th>1/3&quot; B/W CCD</th>
<th>1/3&quot; B/W CCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV System</td>
<td>PAL/NTSC</td>
<td>PAL/NTSC</td>
<td>PAL/NTSC</td>
<td>PAL/NTSC</td>
</tr>
<tr>
<td>Effective Pixels</td>
<td>512x512</td>
<td>628x512</td>
<td>628x512</td>
<td>628x512</td>
</tr>
<tr>
<td>Resolution (TV Lines)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution (KHz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Sync. Frequency (Hz)</td>
<td>50/60</td>
<td>50/60</td>
<td>50/60</td>
<td>50/60</td>
</tr>
<tr>
<td>Video Output</td>
<td>75 Ohm</td>
<td>75 Ohm</td>
<td>75 Ohm</td>
<td>75 Ohm</td>
</tr>
<tr>
<td>SN ratio</td>
<td>Better than 45dB</td>
<td>Better than 45dB</td>
<td>Better than 45dB</td>
<td>Better than 45dB</td>
</tr>
<tr>
<td>Lens</td>
<td>6mm</td>
<td>6mm</td>
<td>6mm</td>
<td>6mm</td>
</tr>
<tr>
<td>Lens Angle (Deg.)</td>
<td>62</td>
<td>62</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Temperature Testing</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Direction Testing</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Current Consumption (mA)</td>
<td>480MA</td>
<td>500MA</td>
<td>500MA</td>
<td>500MA</td>
</tr>
<tr>
<td>Power Supply (DCV)</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>IR Leds</td>
<td>24Leds</td>
<td>24Leds</td>
<td>24Leds</td>
<td>24Leds</td>
</tr>
<tr>
<td>Minimum Illumination</td>
<td>3 lux/F2.0</td>
<td>0.8 lux/F1.2</td>
<td>0.5 lux/F1.2</td>
<td>0.05 lux/F1.2</td>
</tr>
<tr>
<td>Underwater visual distance (M)</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Ip rating</td>
<td>4 kg/cm²</td>
<td>4 kg/cm²</td>
<td>4 kg/cm²</td>
<td>4 kg/cm²</td>
</tr>
<tr>
<td>Operating Temperature (Deg. C):</td>
<td>20~+75</td>
<td>20~+75</td>
<td>20~+75</td>
<td>20~+75</td>
</tr>
<tr>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
</tr>
<tr>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
<td>(RH95% Max.)</td>
</tr>
</tbody>
</table>

3) Using Your Underwater Camera

Underwater camera can be used for a variety of fun and practical applications and can be used both in and out of water! We suggest using the Underwater camera for the following:

Swimming:
Videoen the kids in the water help improve their swimming techniques or record their very first swim. Place the Underwater Cam at the bottom of the pool and kids will enjoy seeing their water games captured on VCR! Place the Underwater cam in your fish tank and see your aquarium fish or TV!

Snorkeling & Diving:
Record snorkeling or diving trips, show friends & family the tropical fish, coral reefs, underwater treasures and friendly dolphins you encountered on your holiday! Underwater Cam is also ideal for the elderly who are unable to swim but still want see the action!

Fishing:
See the type and quantity of fish below, or find out what the conditions are like beneath your boat (i.e. weeds, rocks, sand) Inspect damaged propellers by simply lashing the Underwater Cam to a boat hook or pole.

Ice Fishing:
Examine your location and make sure there are fish below before you set up your tent!

Big Game Fishing:
Connect the Underwater Cam to your camcorder and record the action of your fishing trips—SEE sharks devouring bait!

Lake Fishing:
Make the most of your time on the water—don’t wait for the fish to come to you—you can now find the fish! Camera warranted to 18m/60ft depth. DO NOT EXCEED OR WARRANTY WILL BE VOID # with AV input.

Water quality will affect viewing distance, additional lighting may be required.
More Uses For The Underwater Cam...

To allow the Underwater cam to look straight down, simply clip the cable through the ring near the back of the camera. This will allow the camera to be suspended by the cable in a vertical position. You can also remove the Stainless Steel Ballast and insert a pole, broom handle or similar and use it to point the camera at the area you wish to view.

See illustrations for examples.

Education:
Show children what goes on at the bottom of the sea, lake, fishpond or aquarium.

Search & Rescue, Farming & Marine Departments:
Look down wells and tanks or search dams, rivers and flooded mine shafts. Search sink holes, look down pipe or large drain holes for missing pets or children. Marine departments can check for damage, inspect boats or search for wrecks.

Farms and Ranches:
Farmers can use Underwatercam to inspect the bottom of wells, tanks and dams.

Plumbers:
Use Underwatercam to check drains and pipes for root/branches/leaf clogs and blockages.

3. The Figure And Operation Description For Model

1) The Figure

2) Parts And Figures

A. Metal Case
B. Monitor
C. DC12V 500mA Adaptor
D. Rechargeable Battery
E. Connector (for battery charging only)
F. Remote Controller
G. Underwater Camera
H. Manual
3) Operation

1. Read the instruction manual completely before operating this unit.
2. Open the metal case carefully.
3. Place the rechargeable battery correctly, 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; and 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 connected correctly, then press the POWER button of the monitor, you will get the picture.
7. According to the need, you can use the camera in different place.
8. By adjusting the brightness, contrast, color, chroma on the monitor button or the remote controller, you will get the perfect picture.
9. 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 any time.

4. 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. The camera has been tested underwater to a depth of 18 Meters. Any use below this depth will void the camera's warranty.
6. Always wash the camera in warm water and soap after use, to remove salt and other corrosive agents.
7. 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.
## 5. Troubleshooting Guide

<table>
<thead>
<tr>
<th>Problem judgment</th>
<th>Problem reason</th>
</tr>
</thead>
</table>
| No response on screen (black screen) | 1. Power damage or no suit for product requirement.  
2. Connect opposite polarity of the power.  
3. Power fuse blow out in the unit.  
4. Unit damage. |
| No picture | 1. No video signal  
2. Video connect cable short circuit or open circuit.  
3. Unit damage. |
| No color | 1. No matching color signal system.  
2. Weakness of input video signal.  
3. Unit damage. |
| Slant stripes | Attery poer running out |
| White screen as connecting the power | Misconnect the power input and power output |

**Note:** the less of the power will lead the following symptoms:  
1. It is not as normal when you open the equipment.  
2. No picture or white picture  
3. Cannot open

To assure the battery can use for a long time; you'd better recharge it more than 18 hours for the first time, and the following time should be no less than 12 hours to make sure the battery work normally and regularly.

---

### Notice to customers

**WEEE Directive & Product Disposal**

At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.

**Internal / Supplied Batteries**

This symbol on the battery indicates that the battery is to be collected separately.

This battery is designed for separate collection at an appropriate collection point.

The following apply only to users in European countries. This battery is designed for separate collection at an appropriate collection point. Do not dispose of as household waste. For more information, contact the retailer or local authorities in charge of waste management.