

Handheld Underwater Color Image System for Fishing Operating Instruction



Please read the operating instruction carefully before operating this machine, comply with the important instructions in the operating instruction carefully to operate this machine.

1

- ### Catalog
1. Overview
 2. Precautions
 3. Main function
 4. Main components
 5. Operating instructions
 6. Main technical specifications
 7. Standard configuration table
 8. Safety information
 9. Maintenance and service

- ### 1. Overview
- This product is specially designed and developed for the fishing enthusiasts and the professional fishery operation through using advanced science and technology. The use of this product can find and observe the position and the direction of movement of the underwater shoal of fish, and judge the species, size and the number of the fish through the display device, and also can observe the position and the situation of fish bite. Therefore, this product is the most ideal assistant for fishing, and it also can help you to catch more fish easily.
- ### 2. Precautions
- 1.) Firstly, it is necessary to charge the built-in lithium battery for more than 8 hours

2

- before using this machine for the first time.
- 2.) Do not remove the monitor of the host machine at will, so as to avoid the accidents and cause the loss by human error.
- 3.) Make sure that the plug of the camera has been reliably plugged into the corresponding plug of the host monitor, and then switch on the supply power of the monitor.

- ### 3. Main function
- 1.) The camera adopts the high-definition camera module with 1/4 inch and 300,000 pixels to take image; the image is clear, and the color reproduction is real and verisimilar. The low-level lighting of the camera is 0.1 LUX, and the resolution reaches up to 420 TV Line. The camera combines with four far-infrared LED lights; this combination can guarantee to observe the dynamic trend of the underwater shoal of fish in extremely dark underwater environment. The power cord is made from the special imported materials which are extremely soft and have high tensile strength. Although the wire diameter is only 2 mm, but it can resist the tensile force above 15 kgs. There are two kinds of linear dimension, 15 m and 20 m for the clients' choices.

- 2.) The monitor adopts 3.5 inch TFT color

3

LCD screen with 320 X240 pixels. The display screen can be made random switching from top to bottom, and right to left. The monitor is in power-saving mode, it can extend the time as required. The monitor has the function of color conditioning, brightness adjustment and definition adjustment, and also has many languages for choice.

- ### 4. Main components

- 1.) camera



- (1) camera lens
 - (2) LED infrared LED
 - (3) the principal part of camera
 - (4) camera line
 - (5) camera plug
 - (6) the lateral bracket of the camera
- 2.) Monitor



4

- (1) handheld monitor
- (2) switch-mode power supply of the monitor
- (3) menu select button of the monitor
- (4) the interface change-over switch of the monitor **view**
- (5) zoom-in press button
- (6) zoom-out press button
- (7) menu button **MENU**
- (8) (VIDEO) camera socket
- (9) charger socket

5. Operating Instructions

- 1.) Please turn on the green switch at the back of the monitor firstly before using this machine. Press the ON button once, the switch will be on, and press again, the switch will be off. Such repeated operation is the switching program for this machine. Only this switch is on, the monitor can be started. If this machine does not in use for long a time, please turn off this switch. In this way, it can avoid the loss of the battery power.
- 2.) Then, plug the golden plug of the camera into the left socket (VIDEO) on the top of the monitor, do not plug into the wrong socket, and please make sure that the plug has been plugged properly.

5



- 3.) After the power supply is on, the monitor will show the real-time picture of the image. If the camera doesn't insert into the monitor, the monitor will show the picture of NO SIGNAL, it can remind you to remember to connect the camera well.



- 4.) According to your own operating requirement, the interface of the monitor can be switched from four directions, up-down-right-left. You just press VIEW button to achieve such switching. Each time you press the button, the direction display will be switched accordingly.

6



- 5.) Click the MENU button once, it will show the following picture; if you want to operate the function set-up in any main menu you desired, you can press the left button (zoom-out) or right button (zoom-in) to operate; each time you press the right or left button, the main menu will move forward or backward in turn (image, system, and clock).

- (1) image function
Set the image function, you can press the middle MENU button, when it shows the following interface and the image icon show turns yellow, you can continue to press MENU

7

button, then the submenu item in the main menu of the image will turn red. In this way, you can press right or left button to add and subtract setting for the numerical value of this submenu. Then, if you want to set other functions in this menu, you can press the MENU select button to operate up and down. When setting the parameter, you just need press the right and left button for a long time, and the parameter value will keep changing, until the requirement is met.



- Brightness: adjust the brightness of the monitor, the brighter, and the more power consumption.
Contrast ratio: adjust the definition of the monitor
Chrominance: adjust the color of the screen, from the color to black and white
Tone: adjust the color brightness of the monitor
Reset: when the single reset menu turns red, you can press either right or left button; in

8

this case, the parameter value will reset to the factory default.

(2) System function

There are three submenus in this main menu, including language menu, input menu and blue screen.



Language: can be selected in Chinese or English

Input: Setting is unnecessary

(3) clock function (The machine with this Part No. has not set such a menu function)

6. Main technical specifications

1.) Monitor parameters

- (1) Electric power supply : 3.7V, 4000 mA , built-in lithium battery
- (2) Screen size: 3.5inch
- (3) Display format: 320RGB X 240DOT
- (4) View angle direction: 6 o'clock
- (5) Operation temperature: -20-70℃
- (6) Storage temperature: -30-80℃
- (7) System: PAL/NTSC auto-switch
- (8) When input signal automatically boot

9

(3) Please do not use or keep the machine in high temperature. The high temperature will shorten the service life of the electronic components, damage the battery, and deform or melt some plastic parts.

(4) Do not use or keep this machine in the super cooled place. When the machine is in normal temperature, the moisture will condense within the machine, and cause the damage to the circuit board.

(5) Do not disassemble the machine at your own discretion; the nonprofessional treatment may damage the machine. When the machine breaks down, please connect with LeQi dealers or the salesmen from LeQi Company for the after-sales service.

(6) Please avoid falling off, beating and vibrating the machine; the inappropriate external force will bring about the damage to the circuit and LCD monitor within the machine.

(7) Do not use the chemical solvents or cleaning agents to clean the machine. If you want to clean the machine, please use the soft cotton fabrics with the water or neutral soap to wipe the machine casing gently. Please be sure to pull out all the cables when cleaning the machine.

13

2.) camera parameters

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|--------------------|------------------|
| sensor | CMD |
| TV system | PAL/NTSC |
| Effective | 628X586 pixels |
| Electronic shutter | 1/50-1/100000sec |
| Scanning system | 2:1interlace |
| Sync system | internal |
| Resolution | 420TV lines |
| Lens angle | 2.8mm/120° |

| | |
|-----------------------------|-----------------|
| Sensor area | 5.961mmX4.276mm |
| S/N ratio | More than 48db |
| Water proof | IP68 |
| Power supply | DC12V±10% |
| Operation temperature range | -20℃-60℃ |
| Storage temperature range | -30℃-60℃ |

7. Standard configuration table of this machine

| Name | Quantity |
|--|------------|
| handheld monitor | one piece |
| underwater camera | one set |
| thelateral detecting bracket of the camera | one set |
| charger | one piece |
| instruction | one volume |
| warranty card | one volume |

10

2.) Built-in lithium battery

(1) The lithium batteries can be charged and discharged for hundreds of times, but will fail eventually. When the battery life is significantly shortened, it is necessary for you to purchase and replace the new battery.

(2) When the charger isn't in use, please pull out from the power socket outlet. Please don't connect the fully-charged machine with the charger for a long time, because the overcharge will shorten the battery life.

(3) After the battery power is used out, the machine will switch off automatically. Please note to charge in time.

(4) In battery charging, due to the battery temperature will rise, please do not put the machine together with the inflammables (such as: the head of a bed, clothes and books, etc.), so as to avoid catching fire. In battery charging, please keep the machine in the open space, not allow to be covered.

(5) Do not put the machine into the fire, or put it in extremely hot place, in case of the battery explosion.

(6) In order to prolong the service life of the machine battery, please keep the battery power in full state. When it isn't in use, please wrap the machine with the non-conducting materials after charging the machine(in half-full state),

14

8. Safety information

1.) Please don't use this machine in high temperature, bring light and strong electromagnetic field, etc.

2.) Please turn off the machine before entering into the place where the explosion will occur easily due to the potential factors. In these places, please do not remove, install the battery and or charge the battery. In such environments where the explosion may occur, the sparks may cause an explosion or fire, and cause the personal injury or deaths. Note: The above-mentioned places where the explosion may occur should include: fuel area (such as: under the ship's deck, transportation and storage facilities of the fuel or the chemicals), the places where chemical substances and particles spread in the air (such as: particle, dust or metal powder). The places where the explosion hazard may exist will be marked usually, but not all the places are marked by these signs.

3.) Please keep the machine and charger in the place where the children can't reach, and the rubber plug of the host machine and other accessories may cause asphyxia due to the blockage of trachea.

4.) For your safety, please use the original charger.

11

and put it in a cool, dry and dark place. The storage time is no more than a month. A month later, please recharge it.

(7) If the power line or the socket of the charger has worn or damage; the charger is caught in the rain or dampened seriously; the charger case is broken; you want to clean the charger; as long as one of the above-mentioned situations occur, please pull out the charger plug immediately.

3.) Charging



(1) The battery of this machine is the rechargeable lithium ion battery. If the machine is low battery, please charge for the battery. When cutting off the power supply fittings, you should grasp the plug and pull it out, not pull the power cord itself.

15

5.) Please use the charger indoors, do not keep the charger in the place easy access to water, such as the windowsill.

6.) The charger is non-waterproof, please don't keep and use it in too moist places, such as the kitchen and bathroom; or don't keep and use it in the places where the corrosive gases occur. Otherwise, it may cause the electric shock, explosion or burning accident.

7.) If the machine is unused for a long time, it may not start smoothly, please start again after charging for a period of time.

8.) Please don't operate the machine continuously for a long time in the strong sunlight. In this case, it will bring about the damage to the liquid crystal. It is better to use the machine in 50 degree ambient temperature or no less than -10℃.

9. Maintenance and service

1.) Monitor

(1) Although the machine has high waterproof grade, but for the sake of safety, please keep the machine dry. The rain, moisture and liquid contain many minerals, and will cause the circuit corrosion of the machine.

(2) Please do not keep the machine in dirty and dusty place.

12

(2) Charge for the machine with a charger. Plug one end of the power cord of the charger into the charging port of the monitor, and then plug the charger into the household power supply outlet.

(3) After the charger is connected well, the indicator light on the charger will turn red; when the machine is fully charged, the indicator light of the charger will turn green; thus, it shows that the charging has already completed.

(4) After the charging is completed, disconnect the display with the charger, and take the charger from the socket.

16