Zico
Zi-9644

Video Borescope
User Manual

Please read this manual before switching the unit on.
Important safety information inside.

www.zicotech.com

Contents   **Page**

1.Safety Tips

Before using the instrument, read all safety information and specification of the pinhole video carefully.

1-1.Application of Places

• Detect the inside parts of the machinery which is unvisable to check whether he machinery is working normally.(cars,heavy machinery)
• Put the gooseneck with carema into the underwater to check the objects in the water.(Drainage works)
• Used in some special monitor places, backsight of the cars.
• Such as used for wild advendure.

1-2.Maintenance and cleaning

• Repair or maintenance should be carried out by professionals, not only to carry out manual.
• Please clean the camera after using it, don't use detergents to clean this instrument.

1-3.Safety Sybomls

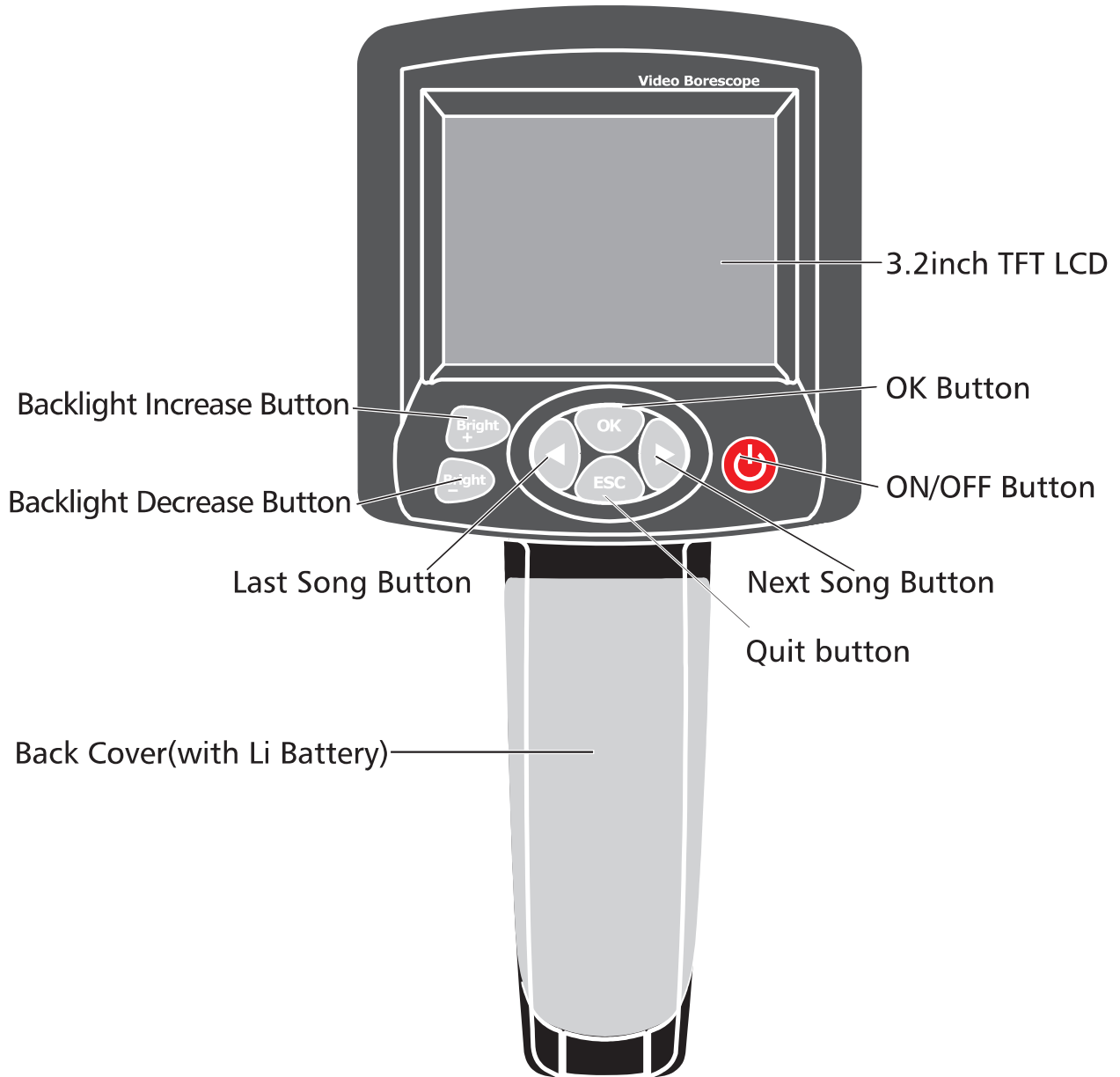• Satisfied with European CE safety standards.

2.Function Description

• check the photo and video at the scene
• Support rotate images(under the camera mode, press last /next song to rorate the angle
• photo(support the images display the current time and date)
• Support audio and video recording
• time and date
• support SD card(8GB)
• support FLASH(8GB)
• Built-in 128M Flash Capacity
• support TV-OUT
• Support for audio and video player(MP4, AVI, 3GP FORMAT)
• support for scaning photos(JPG, BMP, JPEG)
• support English, French, German, Spanish
• Support operation in the dark enviroment(with four light LED)
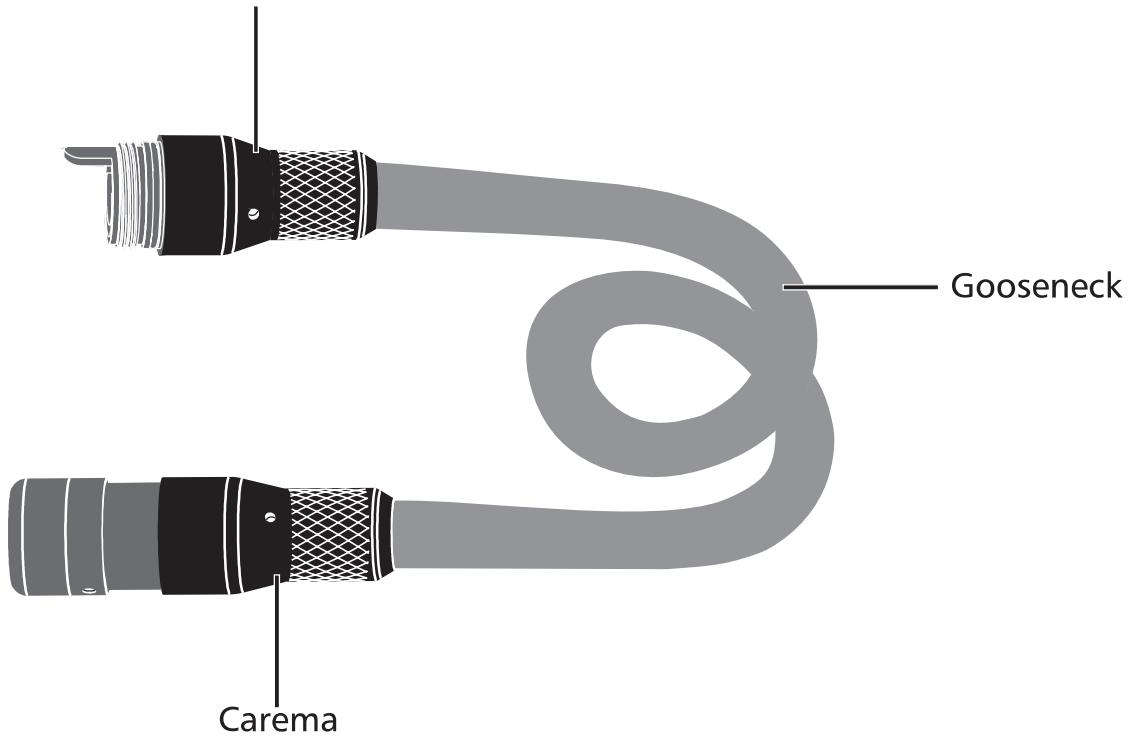• support USB supply(Li battery)

3.Specification

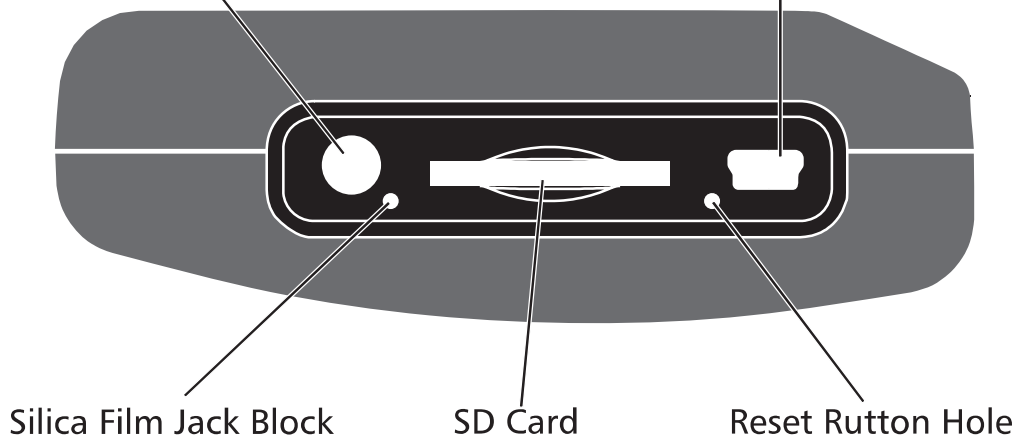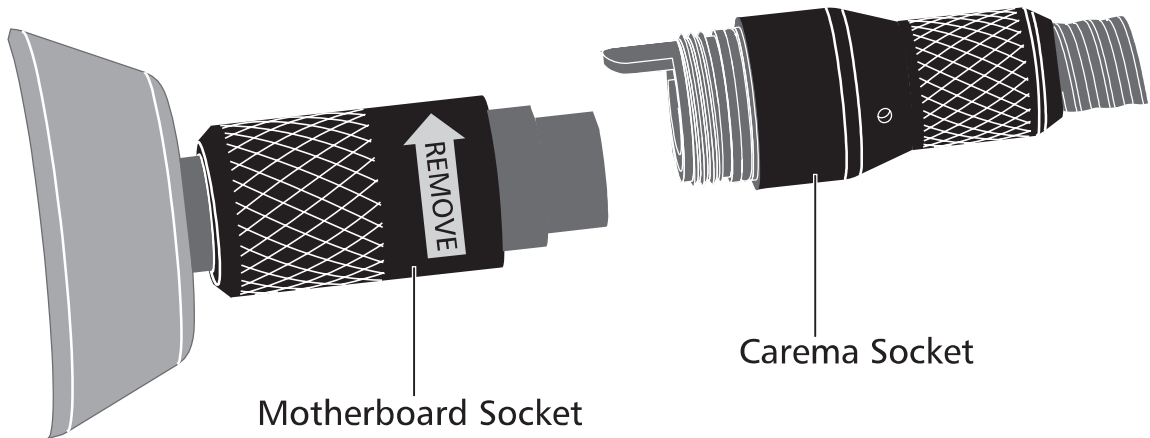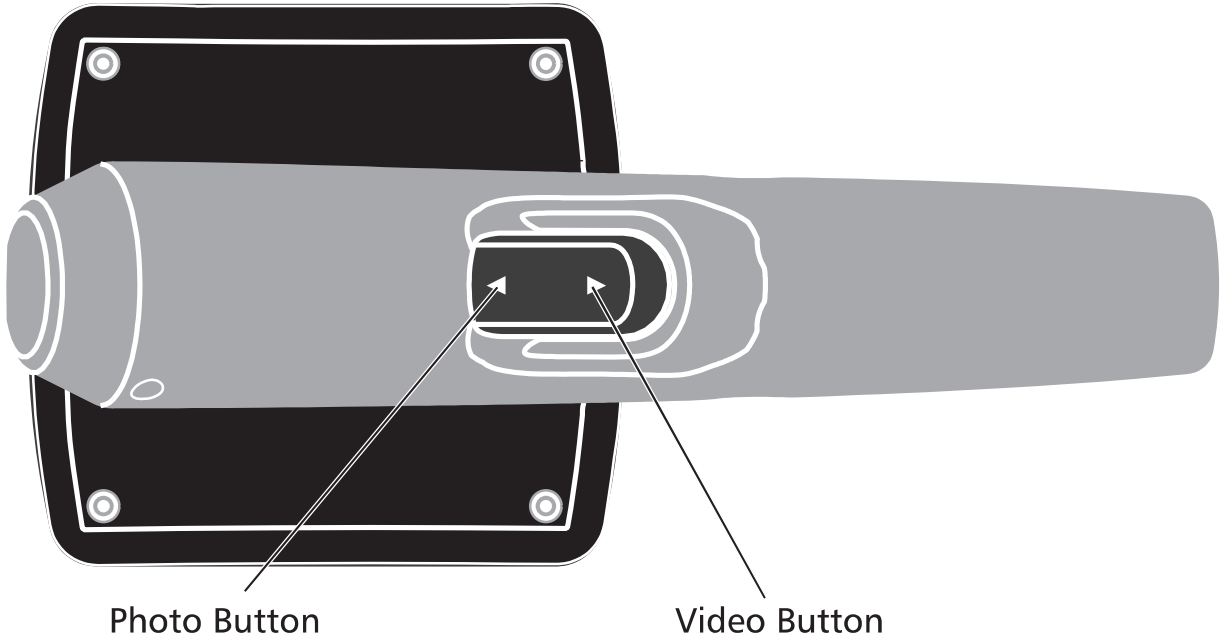|	
Photosensitive Devices	1/4 inch CMOS
Sensor Pixel	640*480
Maxmimum Resolution	320*240
The Maximum Number of Frames (FPS)	30FPS/S
The Median Color (bit)	24
Focusing Method	Manual
Goosenneck Length	1M
Camera Diameter	17mm
Could Be Played Files	MPEG4/3GP/AVI/ASF
Photo Format Supported	JPEG
Camera Video Format	3GP
Picture Format From the Carema	JPG(320*240)
Viewing Direction	Viewing Angle 0 and 180
Support SD card	MAX 8GB
Support FLASH	MAX 8GB
Working Voltage	Li battery 3.7V/2000mA
Video Working Current	MAX 595mA
Video Play Current	230mA
Static Current	MAX 20UA
TV-OUT	PAL/NTSC system
Operating Temprature	-10 to 60 Degree
Storage Temprature	-20 to 70 Degree
Storage Humidity	15% to 85%RH
Testing Range	5cm to 15cm
Data Output	USB Data Cable and SD Card
Power Supply	3.7V, 2000mA/H battery(1860)
Size(L,W,H):	240mm*100mm*160mm
Accessories	User manual, 3.7V lithium battery, package box, USB cable, adaptor, video output line

4.Name and Function

Video Borescope

3.2inch TFT LCD

Backlight Increase Button

OK Button

Backlight Decrease Button

ON/OFF Button

Last Song Button

Next Song Button

Quit button

Back Cover(with Li Battery)

Connected With The Motherboard Socket

Gooseneck

Carema

TV-OUT and Earphone

USB Port and Charging Port

Silica Film Jack Block

SD Card

Reset Rutton Hole

Photo Button

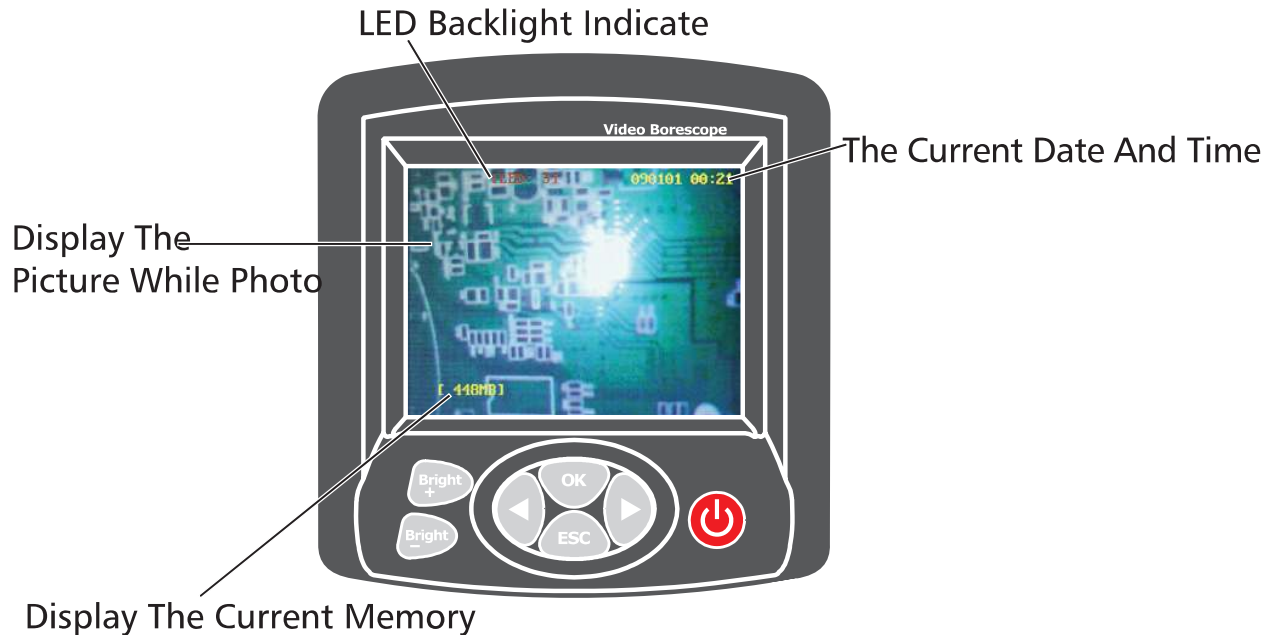Video Button

REMOVE

Motherboard Socket

Carema Socket

5.Operation Description

1.Operation Under Video Mode

1-1.Power ON/OFF

Hold the power button for three seconds enter into the following mode:

LED Backlight Indicate

The Current Date And Time

Display The
Picture While Photo

Display The Current Memory

Hold on the power button for three seconds to colse the instrument.

1-2.Adjust The Brightness of CMOS

In the camera mode press the BRIGHT+ button for each short to increase backlight level until the brightest; BRIGHT- per short by a dim level then brighten and dark cycle. (10 for the brightest, the most dark for 0, 0 when the LED goes out)

1-3.Rotate Images

Under video mode, press last/next song to achieve 180-degree rotating and change the angle.

1-4.Photo

In camera mode, Press the **"SNAP"** button shortly to save the picture. (open the time/date, then the photo will display current time and date. photo Exprorer can browse the photos)

1-5.Video

Under video mode, Hold the RECORD button for three seconds enter into the video, on the left up side of the screen will display a video symbol.
On the left bottom display the changeable free memory. Then press **"RECORD"** button Hold on to save the video. (video could be played in the Video pler of the Exprorer)

2.System Set

2-1.Under the Video Mode Press **"OK"**
button, then pop-up the following dialog box

Right-left to move the cursor to YES then press **"OK"** button to enter into the system setting, as follows:

Current Time, Battery Power And Sd Figure

Main Menu Icon In Corresponding Functional

The Current State Of The Key Operatinal

2-2.Up
• Turn to the last photo function while scaning the pictures
• Mode in the menu for a menu function upward.

2-3.Down
• Browse pictures for a picture of the function down.
• Mode in the menu for the next menu function.

2-4.Anguage
• language setting as followings:
Through the song, a selection of different languages, press **"OK"** button to save the system settings from the main interface. Press **"ESC"** button then quit the video mode.

2-5.Time Setting

Through the songs move the cursor to where you want to set up, press **"SNAP"** and **"RECORD"** to adjust the date and time. Press **"K"** button to save the system setting from the main interface or press **"ESC"** back up to video mode.

2-6.Automatic Shut Down Setting

See the following figure

2-7.TV-OUT Output

Inserted in the headphone hole TV-OUT Video cable, the other side plugs into the TV VIDEO, the left channel, right channel (yellow is the VIDEO, the red and black and white are left and right channels) Select TV-OUT in the System Setup main menu, select the NTSC or PAL respectively in accordance with standard telveision, press **"OK"** button to enter, LCD turns black, then press the **"Operation"** button, television show the content.

Return to the LCD display, select TV-OUT output menu as the same then select LCD output return back to the LCD display operation.
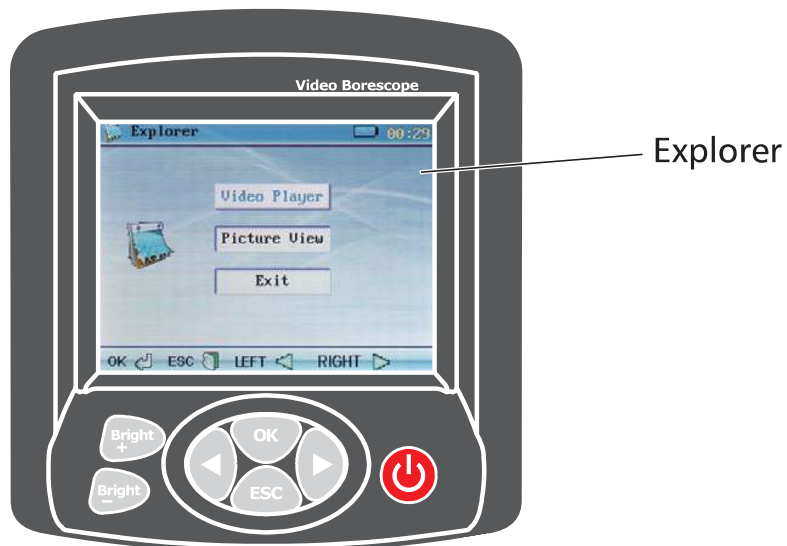
2-8.Memory Options

Press **"SNAP"** and **"RECORD"** to select the current memory, press **"OK"** button to confirm. To format, press the last song and next song then select **"Format"** then press OK button, pop up a dialog box asked, select **"Yes"** to complete format.
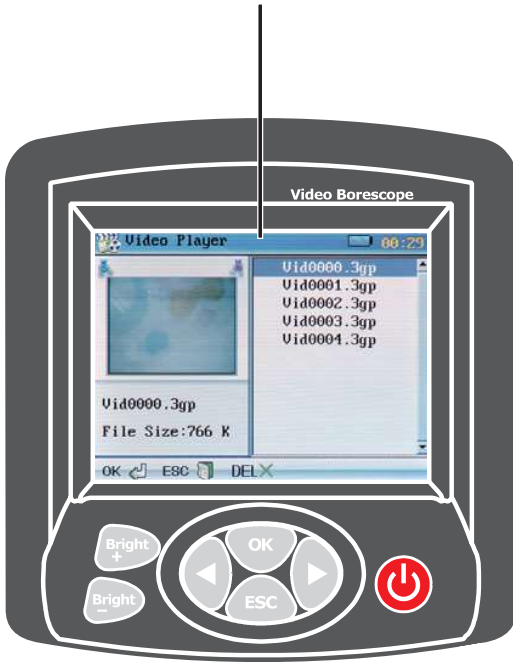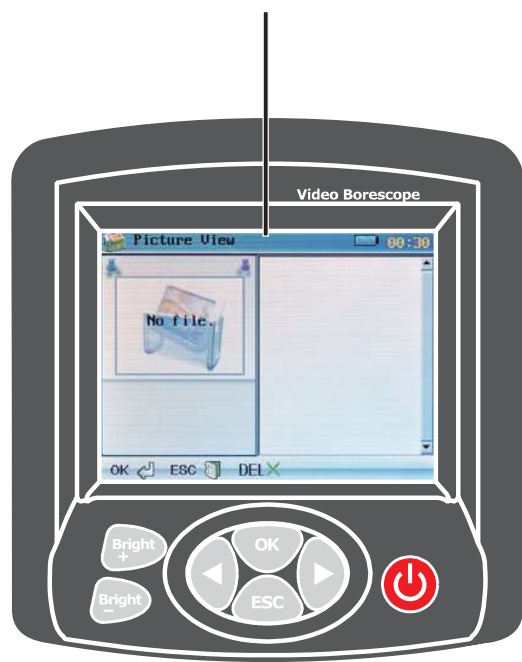

2-9.Picture And Video Explorer

In the video, and Picture directory by **"BRIGHT+"** button to delete the current video and photo.

Explorer

Video Player

Picture View

2-10.Setting

Press **"SNAP"** and **"RECORD"** button to increase or decrease the value to adjust the effect of the camera.

2-11.Saving Power Mode As Follows:

Set the correponding time under the saveing power mode, it will close the display screen while the main menu stay for the corresponding time, but the system of the meter is still working, press any button shortly it will display the main menu again, it won't effect under the video mode, browsing files mode. This function shorten the time of charging power without displaying the screen.

3.Exit Mode

Any setting in the system interface press **"ESC"** button return back to the video interface any setting in the system interface.

6.Notice

•While curving the gooseneck the angel should be less than 90, or it won't come back.
•Taking out the batteries while it stops work for a long time, avoid the battery fluid leakage corrupting the instrument.
•Clear the camera before operation.
•Use 3.7V Li battery.

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