

# G SERIES INDUSTRIAL VIDEO SCOPE

## Operation Manual



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- Please read this manual carefully before operating the videoscope.
  - Please keep it well for reading whenever necessary.

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## After-sale service

1、Repair would be 30 days after receiving the videoscope.

If the repair can not be full-filled during the period promised, sales will notify the buyer by phone call or email to negotiate. The time mentioned above is not included the delivery back.

2、Exclusion and limitation of Warranty Liability.

Our warranty service is limited to the damages arising under proper operations of videoscope.

a. Warranty period of the repaired videoscope will be 12 months. Please pay for the maintenance service if it is out of warranty. The standard of the service fee are made by the manufacturer.

b. We are not liable for the damages or losses as results of improperly installations and the operations.

c. We are not liable for the made-made damages or failures.

d. We shall not be labile for the damages or losses resulting from fire, flood ir any other circumstances beyond our reasonable control.

## Housing Description

### Front Housing Interpretation



#### Swift Key

In photo mode, press to swift between capturing(photo) and video functions; in menu mode it performs as a browsing key.

#### Playback Key

Press to swift between displaying and previewing photos/ videos functions. Press again to find next photos and video.

#### Photo Key/Ok Key

In photo mode, press to capture pictures. In menu mode, it is a Ok key.

## Trouble Shootings

Troubles	Causations
Abnormal bending angle	Check if cable knotted, should straight it and then control the articulation
No images	Check if connect power supply, if lack of electricity, re-plug battery
Vague Image	Check if the probe lense dusty, turn off the videoscope and clear lense surface and check the image again.

## Warnings

1. Do not use out of range of  $-10^{\circ}\text{C}$  to  $50^{\circ}\text{C}$
2. Do not place the videoscope in corruption environment.
3. Do not expose the vdieoscope into the rain and place the probe under water long time
4. Do not place the videoscope in the magnetic environment.
5. Do not use the videoscope in mass dusty environment.
6. Keep the controller clean and do not scratch the monitor.
7. Do not disassemble the videoscope, the maintenance service goes only to the person (s) the manufacturer authorizes.
8. Do not operate the videoscope when cable knotted to avoid damage to internal steel wire.
9. When capturing and recording, make sure LED is suitable for inspection and not tremble the probe.
10. Check if batteries installed and charged before inspection.
11. After inspection, straighten articulation and then pull out, do not pull out in a rush.
12. Clear the videoscope and the probe head and lense with wiper, put into the case; do not squeeze, shock and impact the monitor, to avoid damage. If not use the videoscope in a long period, take out the batteriesto avoid the corruption to the instrument.

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### USB port

For connecting the PC to read the photos and videos.

### 5V Charging port

Connected to charge the battery.

### Video output port

Connected for real time displaying photos and videos on other monitors.

**NOTICE:** Just connect video output port and the outer monitor by the AV wire, the real-time images will be transferred to the LCD monitor.

### SD card-slot

When insert the SD card into the card-slot, the SD icon will appear at left hand corner( shown as red circled)



If SD card is locked, the lock icon will appear on the screen and non photos and videos will be saved after capturing or taking videos.

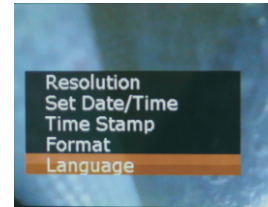
The numbers of photos and videos depend on the volume of the SD card. If the numbers exceeds, the icons will appear on the screen.

SD card is not allowed pulled out during operating.

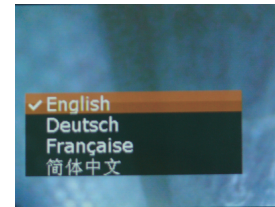
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## Language

Press menu key to get to the submenu and press Ok key to enter the language setting menu interface. There are four languages, English, German, French and Simple Chinese. Press menu key to exit language setting.



language setting interface



language selection interface

## Articulation

Joystick—controlled to bending 360° .

## Insertion cable

Support probe to go the testing positions.

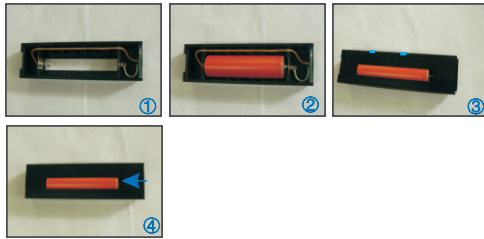
## Probe

Viewing working conditions.

## Batteries

Installation

Method A



1. Identify the anode and cathode of the battery holder.
2. And then put the same-polarity batteries into the holder.
3. Cover the holder.
4. At last push as shown above( 4 ).

Method B



1. Identify the anode and cathode of the battery holder.
2. Then put in the batteries.

## Resolution

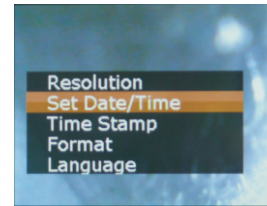
Press Photo/Ok Key to enter the resolution choosing interface.



Picture selection interface

## Set Date/Time

Enter time setting, first line is year/month/date. The second line is hour/minute/second. Press zoom key to move the cursor, press swift key to increase the value, press light key to decrease the value. When the cursor in the third line, can modify the format of date, then press photo key/Ok key to choose.



Time / date interface



Time / date set interface

## Operation Introduction :

1. Make sure battery and SD card are installed before using, then turn on the device.
2. Start inspection.
  - a. Press lighting key to turn on LED light.
  - b. Insert probe to the objects.
  - c. Control joystick to make probe get to the target position.
  - d. Adjust LED illuminance and press zoom key to reach the best image effects.

**NOTICE: Make sure straightness of the probe before inserting into objects to avoid damage to the probe.**

3. After reach the best positon, take records for inspection results through pressing relative function key.
  - a. Make sure the controller in the photo mode.(Menu key can swift between photo and menu modes)



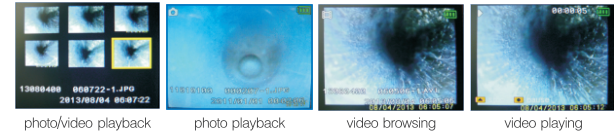
- b. Check the working state icon on the up left corner. If in photo mode, press phot/Ok key to take photos, press swift key to video mode and then press video key to take videos.



- c. Check the working state icon on the up left corner. If in video mode, press video key to take videos, press swift key to photo mode and then press photo/Ok key to take photos.

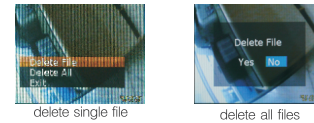
## Playback

- A. Press menu key enter phot mode, then press playback key and you can see photo and video names you are browsing. Press relative functional keys to display and play.



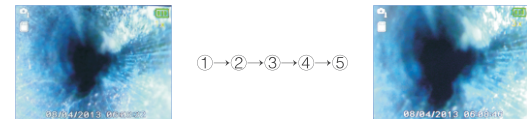
- B. Photo/video delete(shown as below)

If delete a stored photo or video, press menu key to get a dialog box; press swift key to delete single or more files; press photo/Ok key to confirm the delete.

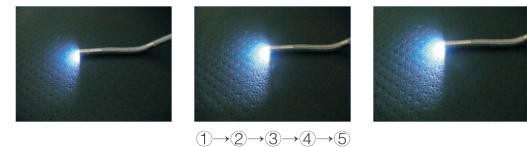


- 5.In photo mode

- a. Press zoom key to amplify photos



- b. Press light key to adjust LED illuminance



6. After inspection, straighten the articulation and then exit the object and the power off.

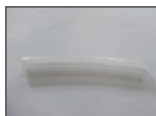
Disposition

7. Cover the articulation part with a protective cap. Draw out the battery and put the videoscope into the case.

(NOTICE: circle the cable and then put in the right place)



protective cap



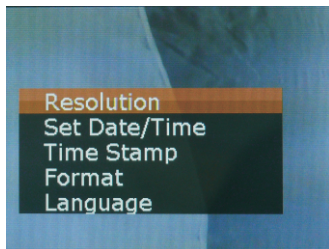
protective tube



Wiper

8. System setting operation

Press menu key to enter menu mode and then set parameters

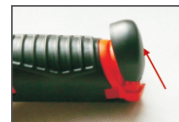


resolution

## Battery Holder Installation

Push up battery cover, draw out battery holder.

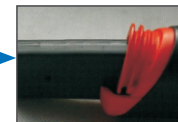
Method A



1. Push up the battery cover



2. Identify installing direction of the battery holder



3. Insert the battery holder

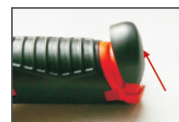


5. Complete



4. Close the cover

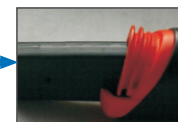
Method B:



1. Push up the battery cover



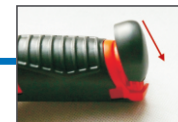
2. Identify installing direction of the battery holder



3. Insert the battery holder



5. Complete



4. Close the cover

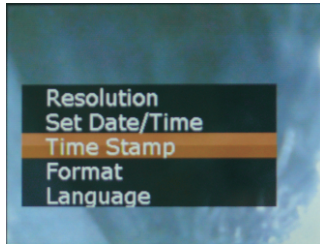
Notice: Mind the directions of the battery and battery cover when installing.

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## Time Stamp

Press light key to turn on or turn off time stamp, press Ok key to confirm.

Time stamp marks the date taking photos or videos and shows date in preview mode.

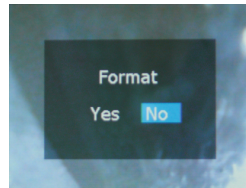


## Format

When need to format SD card, press menu key format and press Ok key to enter format interface. press menu key to exit.



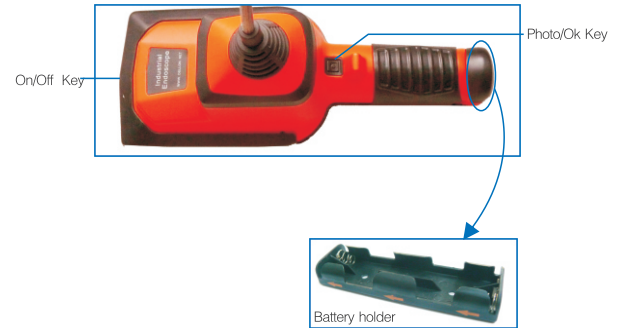
Format Interface



Format Select Interface

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## Back of the Controller

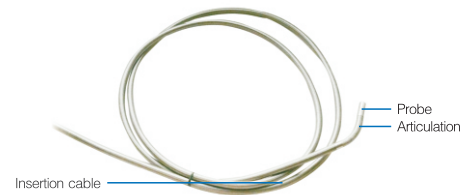


On/Off Key:

Press more than 3 seconds to turn on/off

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## Insertion cable





## Specifications

Model	G4.5mmSeries	G6.4mmSeries
FOV	90°	90°
Pixels	410,000	410,000
Probe dia.	4.5mm	6.4mm
DOF	15mm~∞	15mm~∞
Cable Length	1.5m/3m	1.5m/3m
Cable material	Stainless Steel	Stainless Steel
Bending direction	Manal Manipulation 360 degrees rotation	Manal Manipulation 360 degrees rotation
Waterproof	IP65	IP65(IP67)

LCD Monitor		Manual Joystick Controlled
Light Adjusting		3.5 inches Color Digital TFT LCD
Zoom		5 Adjusting Level
Record/Still Capture Function		5X
		Still Image
Input/Output	Video Output (NTSC/PAL)	Real-time Recording
	USB Port	NTSC/PAL output
Storage Media	USB data transportation Port	USB data communication interface
	Still Image	Micro SD Card (Max 8GB )
	Video	JPG640*480pixel AVI640*480 pixel 15~30fps
Playback Function		Still Image: Thumbnail 6-image Display/ Full Screen Display.Video: Play/Pause
Menu Operation		Date Pattern Selection
		Delete Stored Image
		Time and Date Setting
		Languages: Simple Chinese/German/French
		USB large capacity memory
Ambient Temperature		-10°C~50°C/In the water10°C~30°C
Power Supply	DC	DC5V(4AA )
	AC	ACAdapter(100V~240V )
Operating Time		Max. 2 hours (with 4 AA alkaline batteries)
Weight		590g
Carrying Case Size		470*360*150 ( mm )

**NOTICE: THE ABOVE PARAMETERS WILL BE MODIFIED WITHOUT NOTICE!**

## Video Key

Press menu key to enter photo mode, then press swift key to video model, and then press video key to start a video, press video key again, video stops.

## Menu Key

Swift it to go between photo and menu modes. In menu mode, press swift key to browse and downward select, and press lighting key to upward select.

Press photo/Ok key to enter.

## Lighting Key

5-level recycling light illumination.

## Zoom Key

Photos recycling zoom(5x)

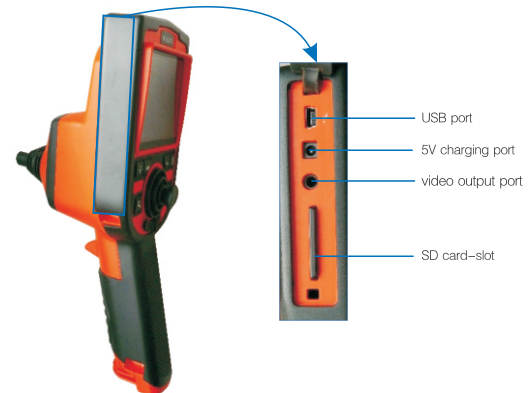
## Joystick

360° full controlling, four-way articulation.

## Joystick Damping Key

Regulate the obstruction of the joystick and lock the bending articulation direction.

Left Side



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## Maintenance

- 1.Keep the videoscope clean and dry after on-site work.
- 2.Place the videoscope into the designed case for the sake of extending self-life of the product.

## Warranty

- 1.The warranty of the videoscope including spare parts (except for batteries) is 12 months from the procurement date.
- 2.Warranty only goes to the original buyers of the videoscope.
- 3.During warranty, repairing is free. All replacing parts, circuit boards belong to the manufacturer. The housing and the dismountable accessories are not in warranty if they are delivered without defects.
- 4.Buyers would afford all the shipping cost for the repair.
- 5.Warranty is not available for the following situations:
  - a.If the videoscope damaged by improper use and storage, force majeure accident, or buyers modify interconnector, self-repair, improperly install without the manufacturer's authorization.
  - b.Buyers do not notify the manufacturer the defects and failures within warranty period.

**NOTICE: ALL THE CONDITIONS AND TERMS AND SPECIFICATIONS MIGHT**

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## Product Introduction



G series industrial videoscope is an inspecting device that of an integration of optics, electronic technique, precision machinery and micro-photograph technique.

- **Optical testing**  
High light 3.5" LCD screen monitor, ultra-mini CMOS/CCD image sensors amplify the images and display inspection results on the LCD screen. The bending part is made of precision joints.
- **Portable and practical**  
Portable and easy to operate, friendly interface; dismountable and rechargeable AA alkaline batteries.
- **Futures**  
High sensitiveness CCD/CMOS image sensor, 5x real time image zoom function. 3 meter inspection distance with LED cold light.  
SD card storage media, still capture/video function, 640X480 resolution display
- **Applications**  
Automobile, machinery, electronics, petrochemical, aviation, aerospace, marine and Building inspection.