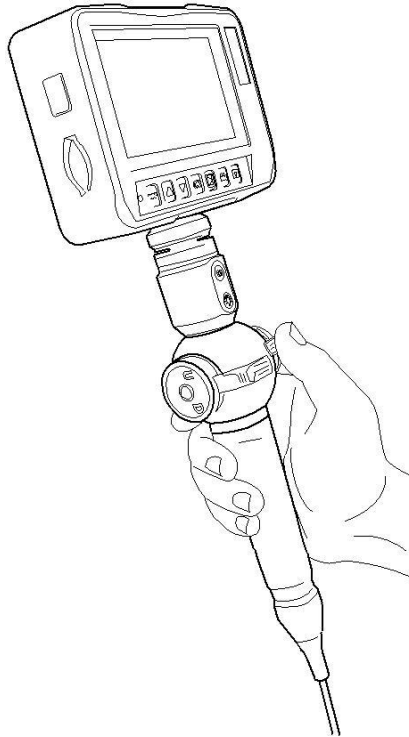


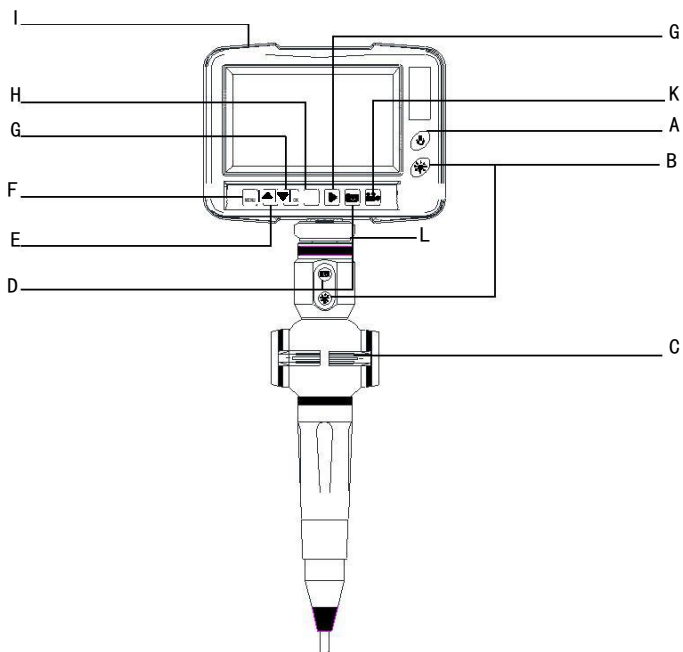
Articulation Monitor Type Endoscope

INSTRUCTION MANUAL



Please carefully read this manual before using

Parts Function



A.POWER BUTTON On/Off

B.LIGHT SWITCH

C.JOYSTICK

D.PHOTO button

E .PREW BOTTON

F. MENU

G . NEXT BUTTON

H . MULTI - SELECTOR OK

I . MAIN UNIT

G . PLAY BACK

K.REC BUTTON

L. LOCK NUT .

Safety recommendations



DANGER

- This device must not be used for medical or veterinary purposes.
- Do not use this item in explosive atmospheres.



WARNING




- Do not modify or disassemble the unit.
- Do not subject the insertion tube or other cables to strong pulling, and do not move the main unit around by holding the cables. Otherwise, the insertion tube or cables may be damaged.
- Do not subject the distal end to severe impact or pulling, do not expose the angulation section to severe impact or bending. Otherwise, the precision components that make up the distal end and the angulation section may be damaged.
- Do not allow any liquids other than water, saltwater, machine, or diesel oil come into contact with the insertion tube, Otherwise, the insertion tube may be damaged.

- Do not allow water come into contact with parts other than insertion tube, water creates the risk of electric shock, the parts of the instrument other than insertion tube are not watertight, so the instrument should not be used or stored where it is submerged or wet.
- Do not use or store the instrument at a temperature higher than 60° C or lower than -20° C.
- Store the instrument in dry and adequately ventilated environment.

Button Description

There are 3 basic modes for easier operations as follows:

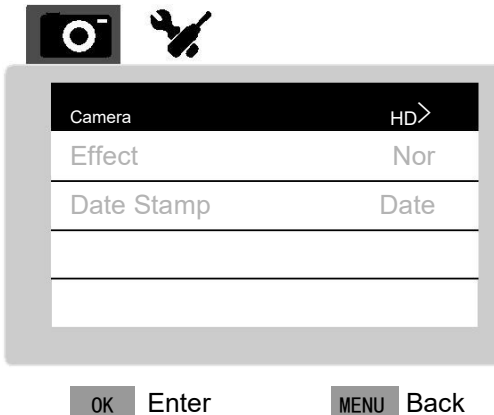
Preview mode	Display summarized optional functions such as: picture taking, video taking etc.
Surfing mode	Survey photos and videos in the memory card and maintain.
Menu mode	Includes file maintenance, settings etc.

Button	Preview mode	Surfing mode	Menu mode
	Zoom x4	Switch to previous/next photo or video	Select previous/next function or option
MENU	To return to the preview mode	To return to the preview mode	To return to the preview mode
OK		To display or pause	Confirm selected function or option
-	To take photo		
	To start / stop video recording		
	To enter surfing mode	Return to preview mode	Choose camera or maintenance settings

Menu

Under the preview mode: Press MENU button to display options

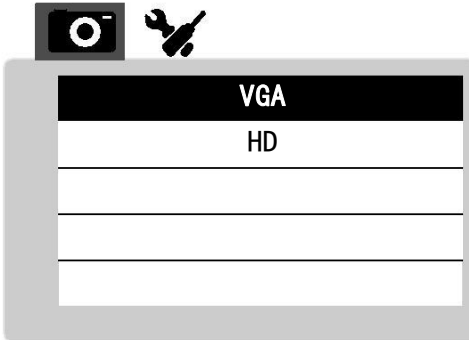
as follows:



Use ▲

Or ▼

To select the item , and enter the options display respectively as below:



VGA Mode:

Image display at 3.5 inch area.

HD Mode:

Image full of screen .

OK Enter

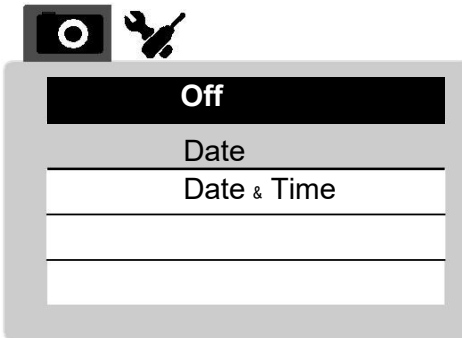
MENU Back



You can choose the image with colour or without colour.

OK Enter

MENU Back



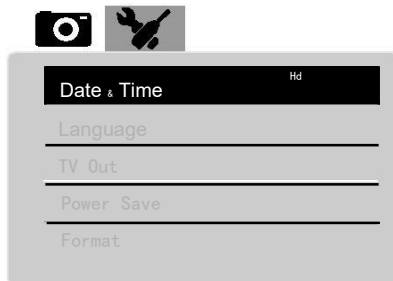
Date stamp can be added to recording files or not.

OK Enter

MENU Back

Menu

Press Menu button return to menu mode , and by ► to set more options as below :

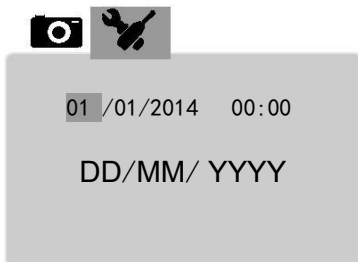


OK Enter

MENU Back

DATE/TIME SETUP

Press ►to select year/ month/day or hour/ minute/ second, and press increasing number and decreasing.



OK Enter

MENU Back

LANGUAGE SETUP

To select language (7optional languages)



OK Enter

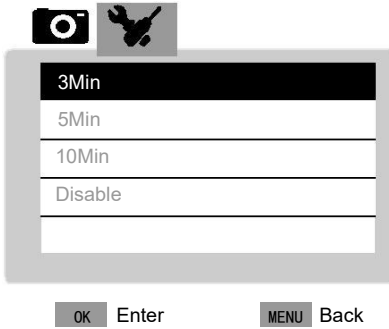
MENU Back

TVOUT SETUP

To set up the TV output format.



To set up time for auto power off.




FORMAT & RESET ALL

Choose Yes to format storage media SD card or return to original settings












Turning on checking

Press Power button for 2-3 seconds to turn on , the displays preview mode. Adjust illumination and extend the insertion tube straight out and operate joystick to check for smooth angulation section operation.

 **NOTE** Increasing the insertion tube bending amount decreases the maximum the angulation angle. Keep the insertion tube as straight as possible to get best operations.

Operation

Photo		Press  to take picture. After this operation , automatically switch back preview mode.
REC		1. Press  for video recording . The icon  in the lower – left corner to indicate recording status. 2. Press  to stop recording. The icon  disappears accordingly.
Zoom		In the preview mode press  to get enlarged x1/x2/x3/x4 view of observation object ,
Rotation		In the preview mode press  to get image up side down or mirror image

Storage & Maintenance


1.Rechargeable battery

Charging time around 7 hours till the indicator light turn off , the fully charged battery can continuously works up to 8 hours.

2 Cleaning components

● Cleaning insertion tube

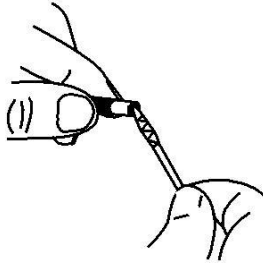
Wipe thoroughly with a piece of gauze or other material moistened with neutral detergent, next clean by gauze moistened with clear water, and then wipe the insertion tube dry off all moisture.

 **CAUTION** Clear the insertion tube immediately after withdrawing the insertion tube. Leave the very dirty insertion tube for long periods can cause it to be corroded.

● Cleaning distal end

Grasping the rigid portion of distal end, use a clean soft piece of gauze or cotton swabs to wipe off dirty and water. Best results may be obtained using commercially available absolute ethanol.

Storage & Maintenance



● Cleaning unit body

Wipe with soft cloth dampened with clean water, and wipe with clear and dry cloth.

3. Storage precautions

- Store the instrument under normal room temperature and humidity.
- Unload the battery, and straighten angulation section while lay into carrying case.
- Store the equipment at a clear, dry and stable place.

Q & A

Q: No image on the screen after turning the power on

A: Battery is exhausted. connect the main unit to the power adapter and recharge ,

Q: No image ,only words on the LCD monitor after turning the power on

A: Check that the control unit is correctly connected to the display main unit.

Q: Unable to take photo or record video

A: SD card absent ,wrongly inserted, full or faulty.

Q: Shut down

A: When all functions freeze or fail, insert an insulated needle into the hole on the side of the main unit ,the system will restart automatically

Specification

LCD Panel 4.3 inch (Image display at 3.5 inch area with W&B sensor)	
Input/output connector	MicroUSB, DC in, TV out
Power supply	Lithium battery 3000mAh AC adapter : Input 100-240VAC 50/60Hz, Output 5VDC
Recording media	SDHC Card support 32 GB

Distal end & Camera

camera	Articulation	Sensor	Rigid portion	Remark
8.5mm	4-way	640x480	Dia 8.5X28mm	Far focal IR camera 6meters away visible at complete darkness
8mm	4-way	640x480	Dia 8.0X28mm	Far focal
8mm	4-way	1080x720	Dia 8.0X28mm	Near focal
5.5mm	4-way	640x480	Dia 5.5X23mm	Near focal
3.9mm	4-way	640x480	Dia 3.9X14.5mm	Near focal
2.8mm	2-way	400x400	Dia 2.8X10mm	Near focal