

USER MANUAL

Industrial Inspection Tool

720P HIGH-DEFINITION
ARTICULATING INSPECTION CAMERA



Model: HD5806

Version 1.0

Please read this user manual carefully and thoroughly before using this product.
Failure to understand operation procedures may result in injury.

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GENERAL SAFETY INFORMATION

WARNING! Read and understand all the instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

SAFETY INSTRUCTIONS

- ☞ Prevent object and liquid entry. Never spill liquid of any kind on the handle part and the video display unit. Liquid increases the risk of electrical shock and damage to the product.
- ☞ The unit is not shock-resistant. Do not use any part of this unit as a hammer and avoid high impact resultant from things such as dropping the unit from height.
- ☞ Do not immerse handle part in water. Avoid moisture, and store the product in a dry place. Such measures reduce the risk of electric shock and damage. The lens and tube are water resistant when the unit is fully assembled, but handle part and the video display unit are not.
- ☞ Do not use the camera if condensation forms inside the lens. Let the water evaporate before using again.
- ☞ Do not use the unit to inspect environments known or suspected to contain exposed electrical wiring.
- ☞ Do not use the unit in the presence of flammable or explosive gases.
- ☞ The unit is designed for industrial inspections. Never use to perform medical inspections.
- ☞ Turn off the system if it is not in use.
- ☞ Use the original power adapter provided by the vendor.
- ☞ Some countries have regulations concerning batteries disposal. Please follow all applicable regulations.

WELCOME

Thank you for purchasing our 720P HIGH-DEFINITION ARTICULATING INSPECTION CAMERA with 5 inch display. This product is designed as a 720P HD real-time inspection camera and to unveil the internal objects and/or structures with the illumination of the highlight LEDs, it is specially designed for visual inspecting spaces with narrow entrance where are inaccessible to human eyes, like aircraft cylinder, car engine, hollow walls, interior pipeline and many more where an articulating endoscope is required.








FEATURES

- 720P HD articulating camera head adjusted up to 300 degree viewing angle
- Mini 5.8mm waterproof flexible camera tube
- Insertion tube length standard 100cm and 200cm for option
- Adjustable 6 high intensity LEDs on camera head
- 5 inch high contrast color TFT display
- 7 navigation buttons on the monitor for functional partition
- Photo and video recording function when the memory card is installed
- Image still function in PHOTO status to pause to observe/select the best picture to save
- Support Micro SD card MAX. 32GB(optional, excluding SD card)
- Built-in rechargeable Li-battery for long working time up to 5hours
- Multi-language support
- Portable and convenient to use



1. Articulating camera with 6 LEDs 2. Flexible probe 3. Handle 4. Camera interface in handle 5. Universal stand 6. Connection cable 7. Power indicator 8. 5 inch TFT display 9. Camera interface in monitor 10. USB slot for power supply 11. Micro SD card slot 12. Labeling slot 13. Bracket connector 14. Reset button

Navigation buttons:

- ①  POWER button. Long press 2 seconds to POWER ON/OFF the system.
- ②  PHOTO/VIDEO button. Short press to take picture/start to record video. Long press to convert the status, PHOTO to VIDEO or VIDEO to PHOTO
- ③  LIGHT ADJUSTING/DELETE button. Increases/Decrease brightness of LED lights on camera head.
- ④  IMAGE STILL/PAUSE button.
- ⑤  UP/FLIP button. Flip the picture/video 180 degree.
- ⑥  MENU/OK button. Short press to enter the MENU/to confirm the selection.
- ⑦  ZOOM/DOWN button To enlarge image frame up to 2X, each button press increases zoom level by factor of 0.5.

SPECIFICATIONS

Items	Product Standard	
Camera Probe	Camera Lens	CMOS
	Resolution	1280*720
	Viewing Angle	65°
	Focal Distance	4CM
	Depth of Field(DOF)	1.5CM~30CM
	Light Source	6LEDs
	LED Light Irradiation Distance	30CM
	Camera Probe Outer Diameter	5.8MM
	Insertion Length	Standard 100CM (optional 200cm)
	Overall Length	118.5CM
	Waterproof Level	IP67(camera probe Only)
	TFT Display	Size(Active area)
Resolution		800*480
Luminance for LCM		500
Image Zoom		1~3times(1.0X, 1.5X, 2.0X)
Image Flip		180°flip
Image/Video	Image/Video Resolution	1280*720
	Signal Format	Digital
	Image Format	.JPG
	Video Format	.AVI
	Internal memory	Micro SD card(support Max.32G)
Power Supply	Working Voltage	5V
	Working Current	460mA
	Li-battery Capacity	3800mAh
	Charging Hour	about 5 Hours
Work Time	Continuous working time	about 5 Hours
Working Temperature	Working Temperature	-10°~60°

PACKING LIST



Camera Probe X 1



Monitor X1



Universal Stand X 1



Connection Cable X 1



USB cable X 1



Power adapter X 1



User Manual X 1



Tool Case X 1

BASIC OPERATION

TO CONNECT POWER

Plug the USB cable into the power adapter, and the other end into the USB slot on monitor to charge, the Power indicator will illuminate red to show in charging status, and it will turn off when the power is fully charged.

Notice: You must use the original power adapter provided by the vendor.

TO CONNECT USB CABLE TO PC

Use the provided USB cable to connect the monitor to a PC with a USB slot, the Power indicator will illuminate red to show the connection is successfully. Power on the monitor, a prompt "Identify the insertion device, please wait..." will pop on the display, when the connection is successfully, the display will show on the status as the picture above and you may browse by double-clicking on the My Computer icon on your desktop, and then navigation into the Mobile Disk directory to read the data in SD card.



CONNECT THE CAMERA PROBE WITH THE MONITOR

To take out the camera probe, use your thumb and index finger to carry one end connector of the connection cable and insert into the camera interface in the handle; turn the top of the monitor faces you, use your thumb and index finger to carry the other end connector of the connection cable and insert into the camera interface in the monitor.



INSTALL THE MONITOR TO THE HANDLE

Slide upward the rotatable bracket of the universal stand into the bracket connector, then slide the fixed foot care of the universal stand to the handle.














TO INSERT SD CARD


To insert the Micro SD card(MAX.32G) into the monitor, use your thumb and index finger to carry the SD card with the back side up and insert into the SD card slot, then use your thumb to push gently until the SD card is locked with a sound. To take out the SD card, push the end of the SD card with your thumb, the SD card is unlocked with a sound, then you can pull out the SD card.





OPERATING INSTRUCTIONS



QUICK START PROCEDURE ON THE MONITOR

1. Before you use the device for the first time, carefully peel off and discard the plastic film protecting the LCD.
2. Press and hold the  button for at least 2 seconds to power on the unit and illuminate the LCD, the power indicator will turn green.
3. Point the camera-tipped end of the probe at the target, pushing the probe through holes.
4. Press the  button to take picture. Long press the button to enter recording mode, short press the button to begin recording, press again to stop recording.
5. Press the  button to still the picture, press the  button to save the still picture when the Micro SD card is installed, press the  button again to release the picture.
6. Press the  button to increase/decrease the brightness of the camera's LEDs.
7. Press the  button to delete the picture/video in playback picture/video status.
8. Press the  button to flip the picture/video (rotate it 180°). Press the button again to undo the inversion.
9. Press the  button to enter the MENU/to confirm the selection.
10. Press the  button to zoom the picture/video frame. The first press of the button to a zoom level of 1.0X. "1.0X" will appear in light at the top right of the screen. Push the button second and third time to zoom in closer at a level of 1.5X and 2.0X. The next push of the  button reverts to normal size (1.0X) viewing.

11. Press the  button to up to the top in the MENU or to increase the number in DATE/TIME setting.

12. Press the  button to down to the bottom in the MENU or to decrease the number in DATE/TIME setting.

13. To power off the device, press and hold the  button for at least 2 seconds.

14. The device is designed to be powered for several hours when fully charged. A  full battery icon will appear on screen when the total battery charge is full. A  flickering low battery icon will appear on screen when the total battery charge drops below an operational threshold. To recharge the battery, follow the procedure on **TO CONNECT POWER**.

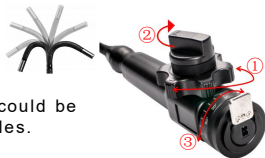
15. Only when the system is crashed and the buttons didn't work, you can use a needle to press the Reset button to restart the system.

OPERATING ON THE CAMERA PROBE

① Rotate the rotary switch, the camera head could be articulated Max. 150° right and left.

② Rotate the elastic knob with clockwise, the rotary switch could be gradually tighten for fixing the camera head articulating angles.

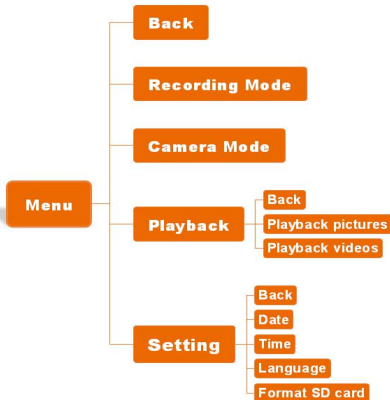
③ Rotate the probe 180° right and left, and the rotation angles could be shown in dial.



Notice: It is forbidden to bend the spring connections manually, since there is a flexible spring inside the front end of the hose.



MENU INTERFACE



Icons prompt:



shows the SD card is not installed.



shows the camera is not connected.

CAMERA NOT CONNECTED

SD CARD

No SD card found!

shows there is no SD card found.

VIDEO

Deleting...

shows the video is deleting.

DELETE

Completed!

shows the delete is completed.

PLAY BACK

No data!

shows no data in the SD card.

SD CARD

Memory full!

shows the SD card memory is full.

SD CARD

Formating...



show the SD card is formatting.







SD CARD

Format completed

shows the SD card is format completed.

MENU INTERFACE INTRODUCTION

Recording Videos: In real-time recording mode, press the  button to begin recording, the  icon on the screen, press again to stop recording.




Taking Photos: In the real-time camera mode, press the  button to take a photo, the  icon on the screen will flicker once to indicate successfully take the photo and save; press the  button to still the image, press the  button to save the still image, the  icon on the screen will flicker once to indicate successfully save, press  again to release.







Notice:* In recording/camera mode, the SD card should be installed, otherwise it will prompt No SD card found!


* The video will be automatically saved as an individual file every 4minutes(approximately).

* When the SD card memory is full, you can not continue to save the picture/video unless you backup the files and release the memory space.

Playback Videos/Pictures: Press the  or  button to select your desired video/picture. When video is playing, press the  button to pause and press  again to release.

Delete Videos/Pictures: Press the  or  to select your desired video/picture, then press the  button to delete One or All videos/pictures, or Cancel to delete any video/picture.


Date/Time Setting: In the setting mode, press  or  button to select Date/Time, and press  button to begin setting. Press the  or  button to decrease or increase in numbers, and press  button to confirm.

Language Setting: In the Language setting mode, press the  button to switch the language, and quit to select the language. Each press switch one language.

Support languages: English, Deutsch, Français, Nerderlands, Español, 简体, 繁體, 日本語, Р у с с к и й

Format SD card: In the setting mode, press  button to select Yes or No to continue the action.

TROUBLESHOOTING

Problem	Possible Causes	Likely Solutions
The system can not be started	1. The monitor has run out off power.	1. Make sure the monitor is with enough power.
Image too dark or light	1. LEDs on camera need adjustment.	1. Adjust the brightness of LEDs according to the inspecting environment.
Camera LED does not light and no image	1. The connection problem between the monitor and the camera probe. 2. The camera is damaged.	1. Reconnect connections between the monitor and the camera probe. 2. Separate the camera probe from the monitor, and replace a new one.
Micro SD card can not be read	1. SD card problem. 2. System breakdown.	1. Make sure the Micro SD card is fine and not more than 32G. 2. Restart the system.
The video image is not so smoothly or not recording properly	1. The transmission speed of the Micro SD card is less than 6MB/sec.	1. Use the Micro SD card with transmission speed 6MB/sec or above.
The video is not recorded	1. Power off when recording. 2. The Micro SD card is full.	1. Finish the video recording before the battery is running low. 2. Change a Micro SD card or remove the old data and make room for the new video.
The system is breakdown	1. Switching operations too fast and the system can't react. 2. System breakdown and all the buttons didn't work .	1. Restart the system. 2. Use a needle to press the Reset button to restart the system.
 Follow all safety precautions whenever diagnosing or servicing the tool.		

MAINTENANCE TIPS

Do not bend manually the articulating part and the spring connections. Do not use the camera probe as a rope or insert the holes less than 5.8mm by force. Do not spill water on the handle and the monitor, only the camera probe is waterproof. Do not force the misplaced Micro SD card into the SD card slot, and do not force to pull out the SD card from the slot directly, doing these would damage the slot and SD card. To protect the device and the Micro SD card, do not insert or take out the Micro SD card when the device is working, please power off the device when doing these.

WARRANTY INFORMATION

We warrant its instruments and accessories against defects in material or workmanship for one year from the date of purchase. We will replace or repair the defective unit, at its option, subject to verification of the defect.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the product.

Any implied warranties arising from the sale of a product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. We shall not be liable for loss of use of the product or other incidental or consequential damages, expenses, or economic loss, or for any claim of such damage, expenses, or economic loss.

State laws vary. The above limitations or exclusions may not apply to you.

RETURN FOR REPAIR POLICY

Every effort has been made to provide you with a reliable product of superior quality. However, in the event your instrument requires repair, please contact our Sales to obtain an RGA (Return Goods Authorization) number before forwarding the unit via prepaid/collect freight to us.

All the graphics and specifications included in this user manual are subject to minor change without prior notice.