

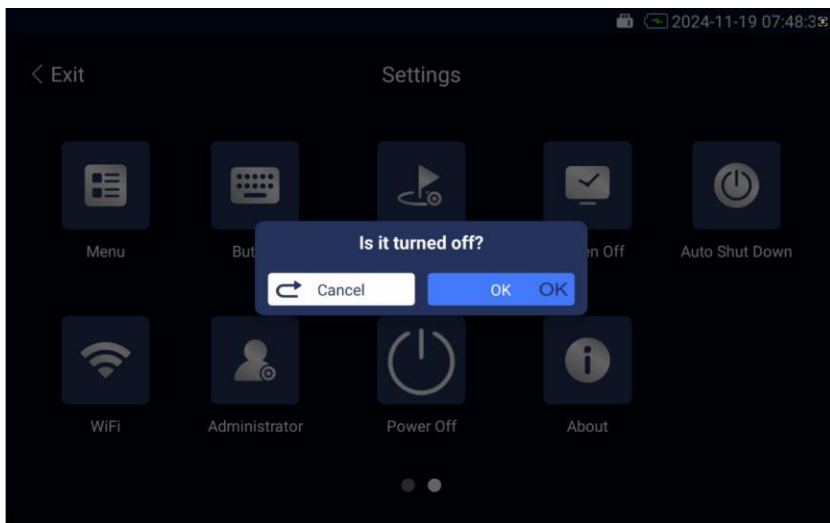


Figure 8-5-32

8.6 Image browsing

Image browsing interface (as shown in Figure 8-6-1) :

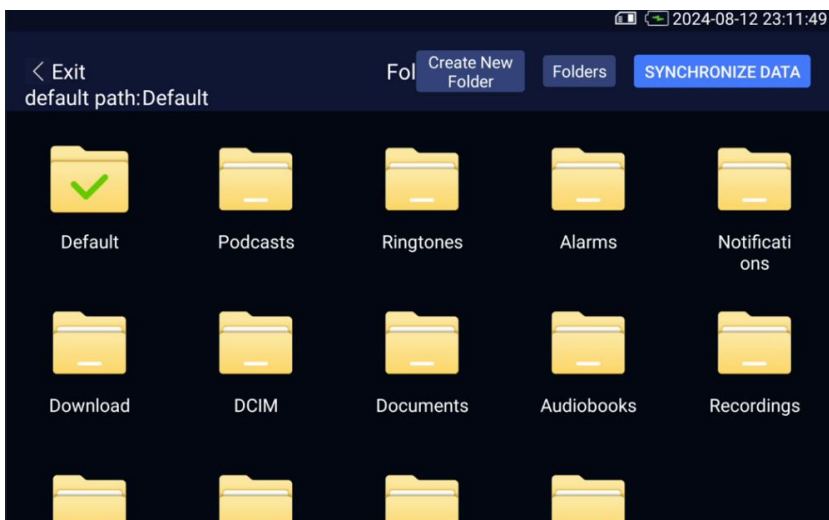


Figure 8-6-1

If there is an external storage, there will be a [Synchronize Data] button on the right. Click [Synchronize Data] (as shown in Figure 8-6-2) to synchronize the data in the built-in storage to the external storage :

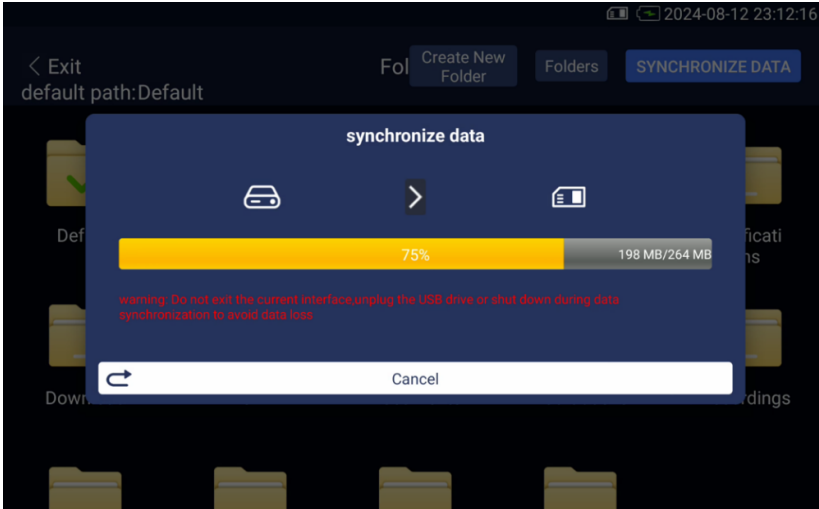


Figure 8-6-2

Click [Create Folder] to create a new folder, enter the folder name, and click Save to create the new folder (as shown in Figure 8-6-3) :

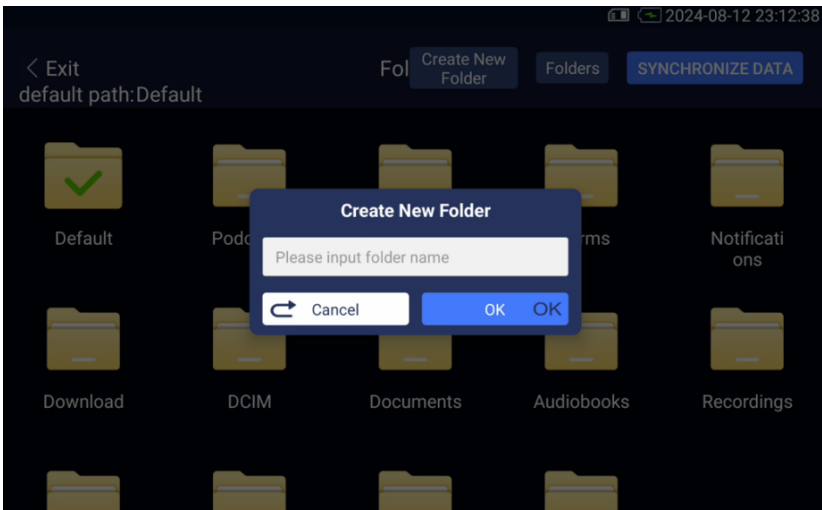


Figure 8-6-3

8.6.1 Folder Management

Click [Folder Management] to enter the management operation mode, and click [Finish] to exit the folder management mode (as shown in Figure 8-6-4) :

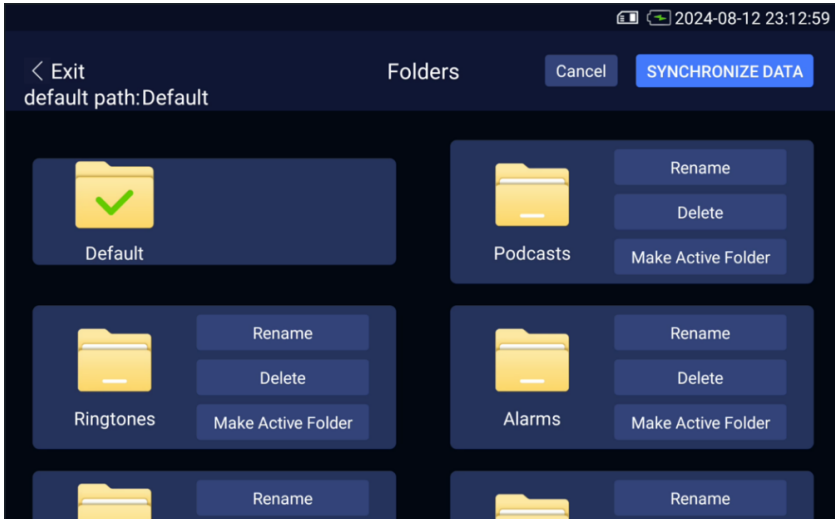


Figure 8-6-4

Click [Rename] to rename the folder (as shown in Figure 8-6-5) :

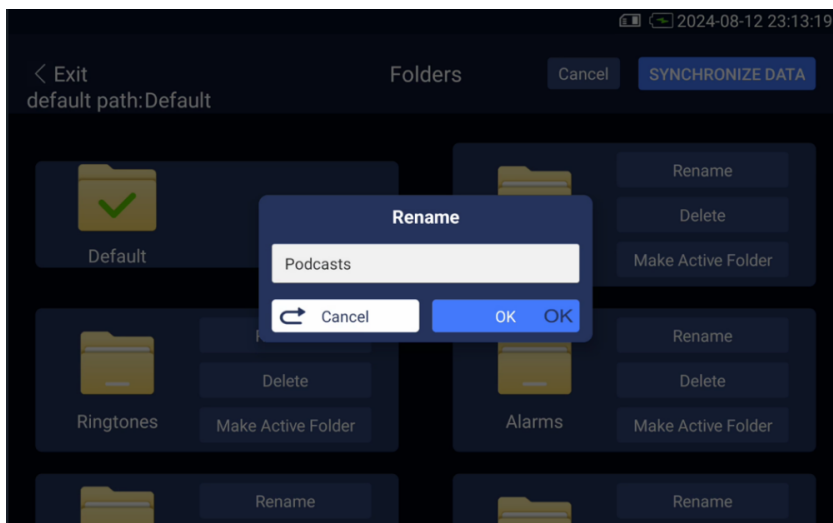


Figure 8-6-5

Click [Confirm] to complete the folder renaming.

Click [Delete] to delete the current folder (as shown in Figure 8-6-6) :

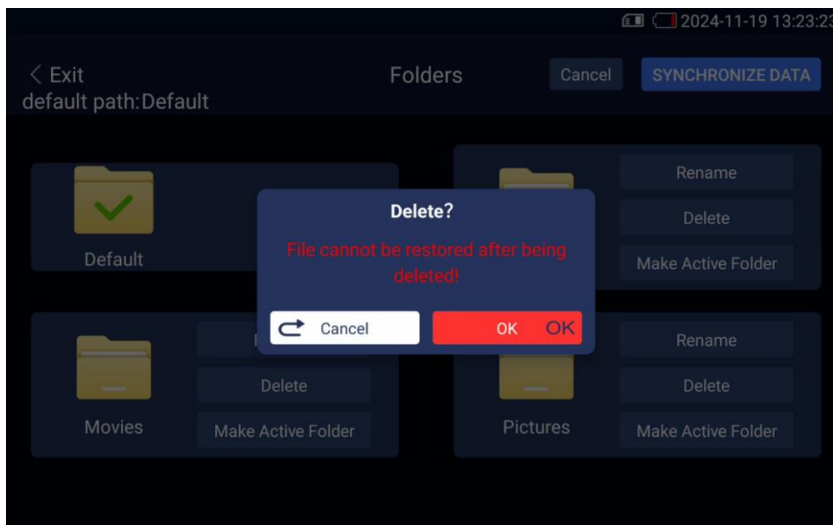


Figure 8-6-6

Click [Set default path] to set the current folder as the default folder. After setting it as the default folder, photos and videos taken will be saved in this folder.

⚠ **hint:**

- **The default photo image is different from normal folders .**
- **The host connects to the computer to read data, and the contents of the SD card folder can be deleted, copied, etc. on the computer .**

8.6.2 Photo and video browsing

When the file is not in folder management mode, click [Folder] to browse the pictures and videos in the folder (as shown in Figure 8-6-7) :

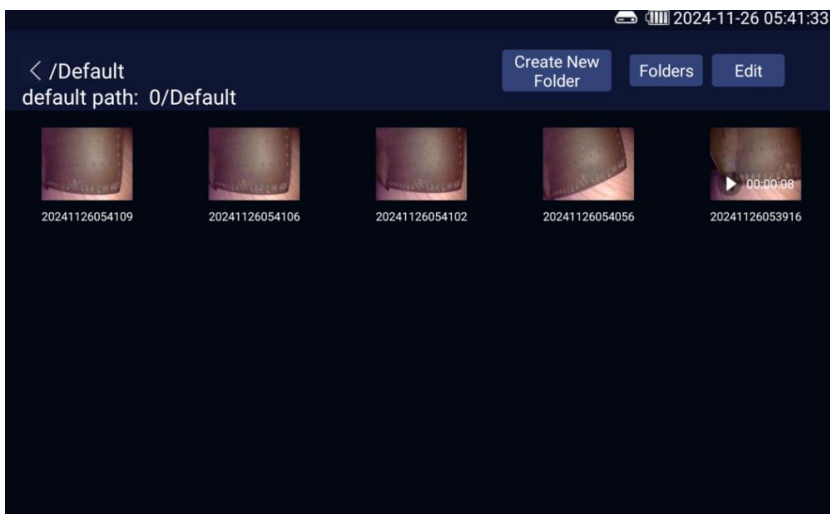


Figure 8-6-7

Click [Edit] to enter the multiple selection mode and select multiple pictures or videos to delete (as shown in Figure 8-6-8) :

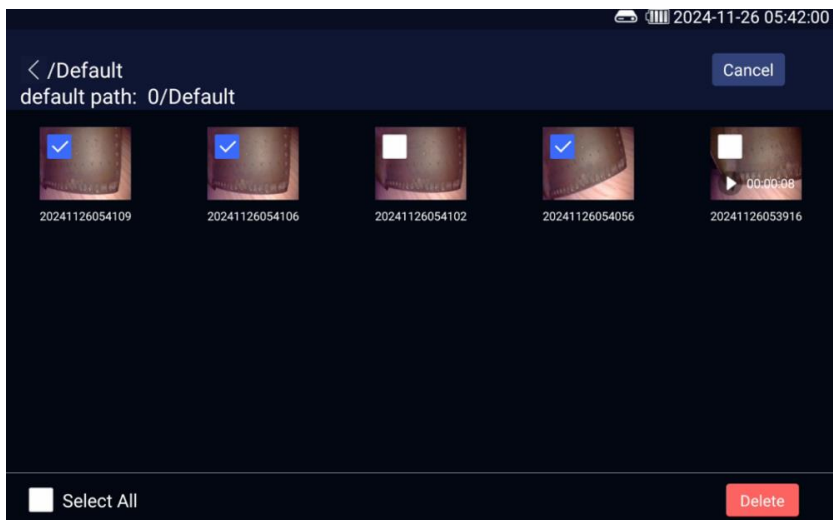


Figure 8-6-8

Without entering the multi-select mode, click on the image to enter the image browsing mode (as shown in Figure 8-6-9) :



Figure 8-6-9

Click the zoom icon to enlarge the image.

Click the zoom out icon to zoom out and browse the enlarged image;
Click the forward and back icons to browse the previous and next pictures;
Click the delete icon to delete the current picture;
Click the rename icon to rename the current picture;
Click the edit icon to enter the picture editing mode;
entering the picture editing mode , click the curve icon to draw lines on the picture (as shown in Figure 8-6-10) :



Figure 8-6-10

Click the arrow icon to draw an arrow on the image (as shown in Figure 8-6-11) :



Figure 8-6-11

Click the text editing icon to add a text watermark to the image (as shown in Figure 8-6-12) :



Figure 8-6-12

Click the measurement icon to measure the image (as shown in Figure 8-6-13) :



Figure 8-6-13

1) First, use touch to select the position of the reference object in the image (such as the red line in the middle of Figure 8-6-13);

2) Measure the required position (the green line in the middle of Figure 8-6-13) and you can get the actual value required for measurement;

3) Finally, input the reference real value;

4) Click Reset to measure again.

Click the save icon to save the currently edited image.

Click the setting icon to set the line color or font size of each function (as shown in Figure 8-6-14) :

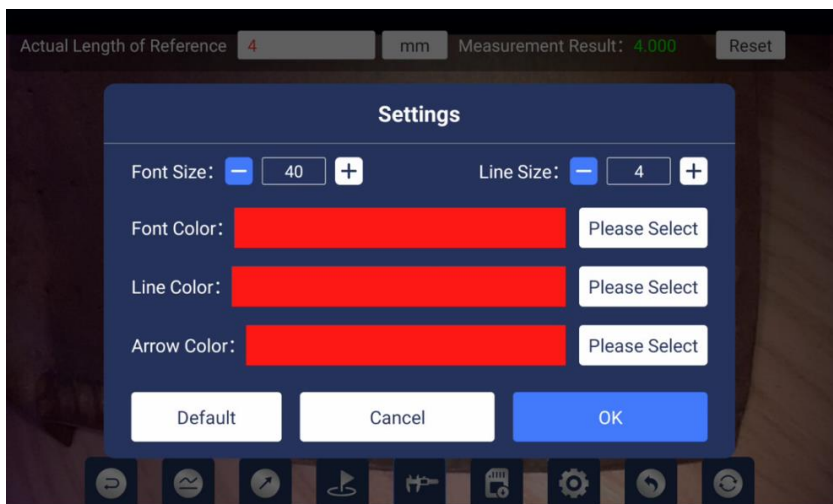


Figure 8-6-14

Click the undo icon to undo all the effects of the current editing and restore the image to its original state.

Click the Exit icon to exit the image editing mode.

Click the thumbnail of a video file to browse the video (as shown in Figure 8-6-15) :

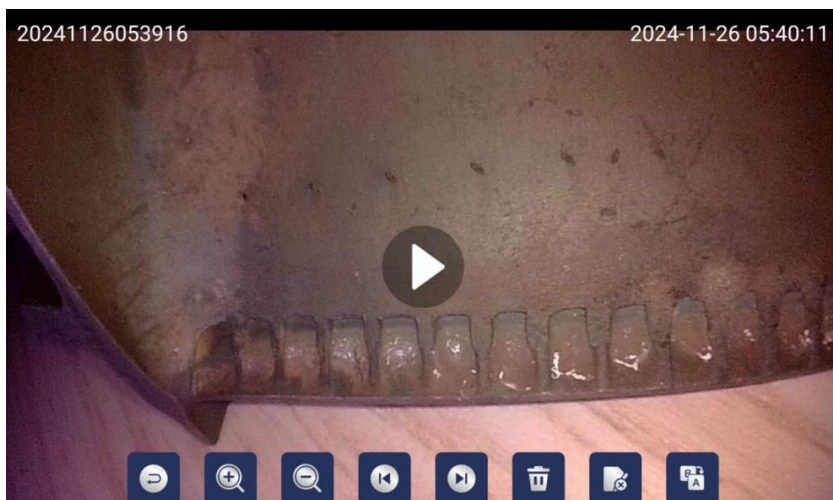


Figure 8-6-15

Click the middle play button to start playing the video . Drag the left side of the screen up and down to adjust the screen brightness. Drag the right side of the screen up and down to adjust the sound intensity. Drag the screen left and right to adjust the playback progress bar .

8.6.3 Export report

In picture viewing mode, click the [Export Report] icon (Figure 8-6-16) to export the current picture output report.

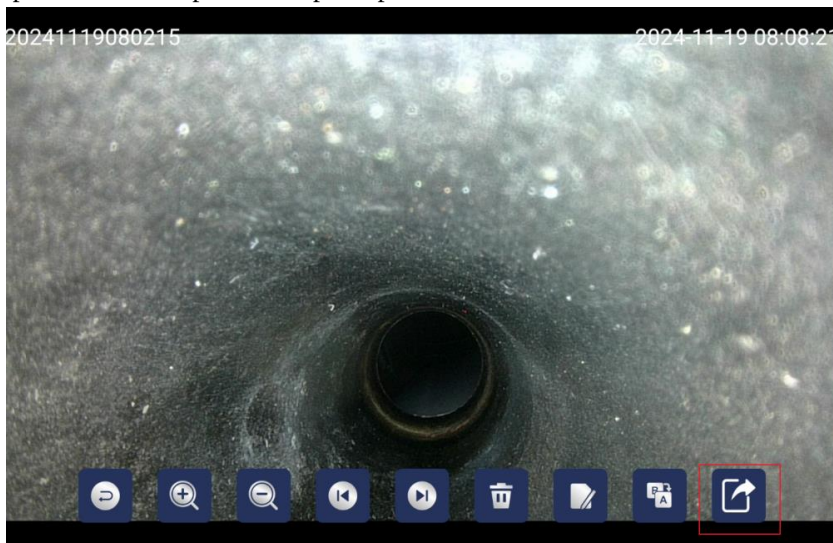


Figure 8-6-16

File browsing interface, click the Edit button, tick multiple pictures, click the [Inspection Report] icon (Figure 8-6-17), you can export multiple pictures output report.

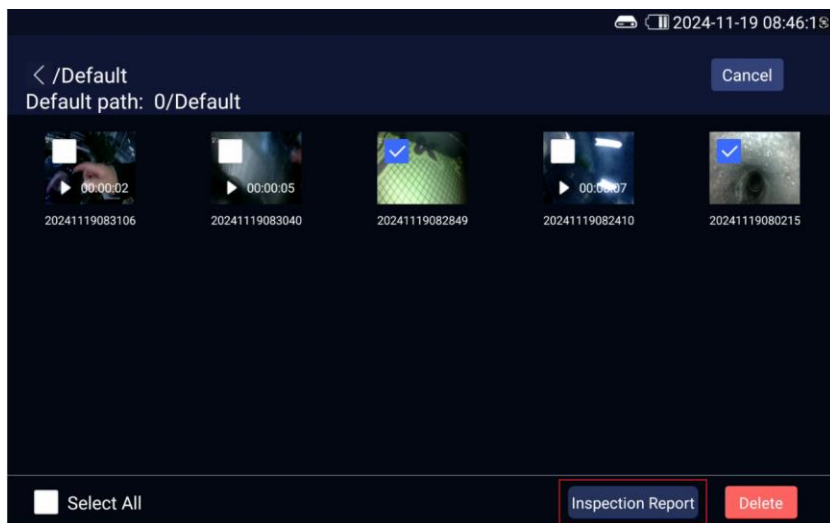


Figure 8-6-17

In the test report interface, you need to improve the detailed text information of the report (Figure 8-6-18). Click Preview to preview the current format of the exported report, after confirming that there is no error, click the [Save as PDF] button to save the report in PDF format in the pdf directory of the SD card (Figure 8-6-19).

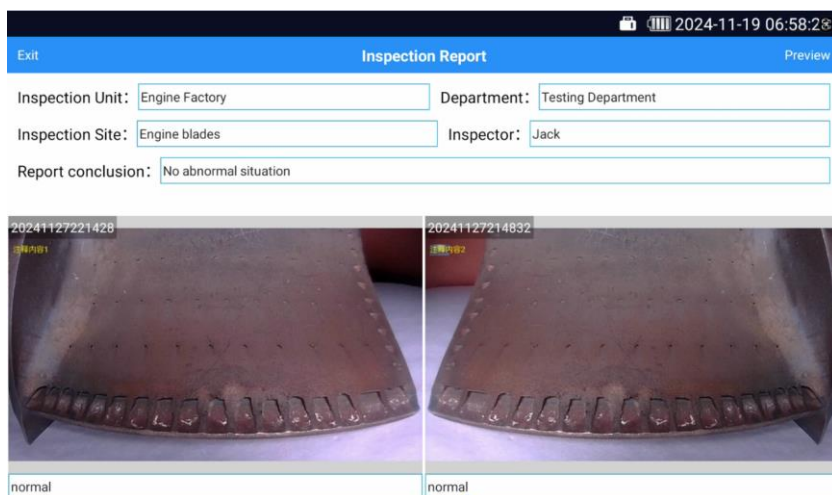


Figure 8-6-18

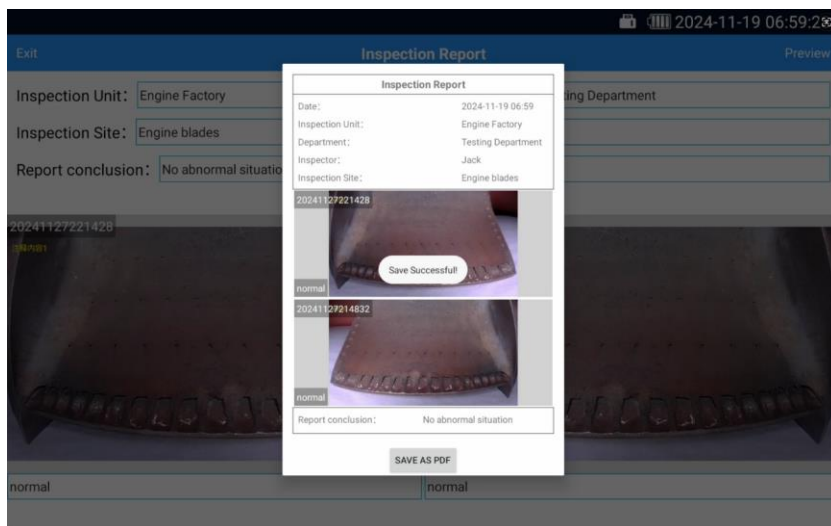


Figure 8-6-19

8.7 HDMI output

Connecting the HDMI cable to the monitor and host HDMI interface respectively can realize the video output interface and achieve dual-interface display (i.e. host interface and monitor interface).

8.7.1 Touch screen function introduction

This instrument uses a capacitive touch screen and can be used in harsh environments. The host interface operations (such as taking photos and videos, etc.) can be operated with fingers or a touch pen.

Note:

- 1) Do not use sharp objects to press the touch screen! The touch pressure should not be greater than 120g!
- 2) For the touch pen provided by Yateks, the large head is used for touch operation, and the small head is not recommended.

8.7.2 Data Transmission

The card slot on the right side of the instrument host is used to install a USB flash drive , and the captured pictures and videos will be automatically saved to the USB flash drive . Take out the USB flash drive and use a card reader to read the data on the USB flash drive on a PC . When the instrument is turned on, you can use a data cable to connect the PC to directly view or edit the data on the USB flash drive .

8.7.3 Computer Synchronous Image

Connect the HDMI cable to the monitor and host HDMI interface respectively, then turn on the host to realize the video output interface and achieve dual-interface display (i.e. host interface and monitor interface).

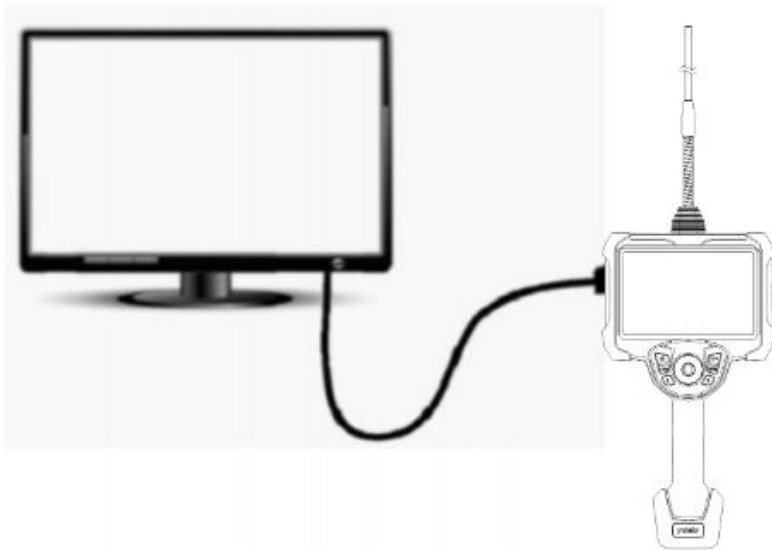


Figure 8 - 7-1 Host connected to monitor

8.8 Steering Line Operation Guide

8.8.1 Checking the Angle Bending Function

- 1) Straighten the insertion tube.
- 2) Slowly operate the joystick in the operating handle to ensure that the angle bending part can move smoothly.

hint

The angle bending action corresponds to the angle and direction of the joystick action.

8.8.2 Normal Mode

- 1) The first is the normal mode, in which the display shows the normal mode;
- 2) Shaking the joystick can control the 360° steering and locking function of the instrument lens in real time.
- 3) If positioning observation is required, move the joystick to the observation angle, keep it still for 3 seconds , and the direction will be automatically locked.
- 4) If you need to reset the lens, just push the joystick at any time and then release it, the lens will automatically reset .

8.8.3 Fine-tuning mode

- 1) Directly press the "Return/Motor Mode Switch Key" and  the display will prompt "Fine Adjustment ". This will enter the fine adjustment mode .
- 2) At this time, shaking the joystick can fine-tune the direction;

- 3) Fine-tuning mode: This is fine-tuning based on the normal mode. At this time, the display shows fine-tuning mode, and the direction will be automatically locked when the bend is adjusted to any direction.

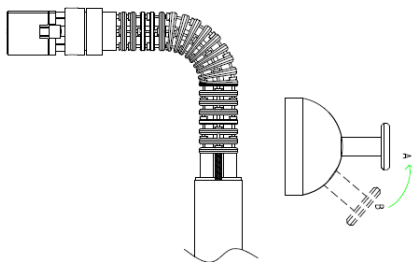


Figure 8 - 8-1 Angle check and locking/fine adjustment

⚠ Notice

- When entering the lock position and fine-tuning function, do not bend the lever to an excessive angle with your hands.

8.8.4 Step Mode

- 1) Directly press the " Return/Motor Mode Switch Key " button

↶ | ↷, the display prompts that it is in step mode;

- 2) After entering the stepping mode, the steering will automatically straighten the steering part;
- 3) Move the joystick up and down, and the bending direction will be synchronized with the joystick , and the angle will still be locked even when the joystick is released.
- 4) If you need to reset the lens, press the " Return/Motor Mode Switch Key " again ↶ | ↷, the lens will automatically straighten the

steering position , and the fine-tuning function of the instrument display will disappear .

8.8.5 Optical Adapter Installation (Only for Interchangeable Lens Series)

- 1) Check whether there is dust or water inside and outside the objective lens. If there is dust or water, hold the hard part at the end and wipe it clean with soft gauze or cotton swab.
- 2) Position the optical adapter through the end of the insertion tube, and then carefully insert the optical adapter into the end of the insertion tube.

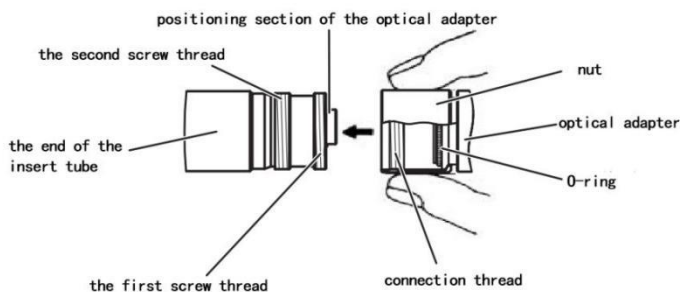


Figure 8-8-2

- 3) Turn the optical adapter nut in a clockwise direction until the first thread passes through the connecting threads.



Figure 8-8-3

- 4) Once the first thread is through, turn the entire optical adapter body

in a clockwise direction while gently pushing against the end of the insertion tube until it stops.

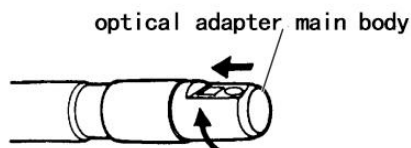


Figure 8-8-4

5) Turn the nut of the optical adapter clockwise until the second thread is screwed onto the connecting thread. Tighten the nut until it stops.

8.8.6 Insertion of the insertion tube

■ Hold the operating handle and insertion tube

- 1) When the joystick is operating, the operation can be completed by pressing the thumb.
- 2) All other buttons can be operated by pressing and holding the thumb.

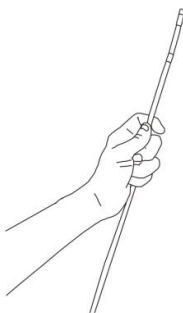


Figure 8 - 8-5 Handle Operation

■ Insertion tube

1) While watching the monitor screen, carefully check the insertion tube and slowly insert the object under observation, bending it at an angle as needed and applying force carefully and evenly.

2) When withdrawing the insertion tube, make sure that the front end of the insertion tube is in a straight position (the joystick is in the middle position), and then withdraw it slowly.

■ Angle bending operation

1) According to the needs of on-site inspection, operate the joystick to control the bending of the lens for observation.

2) Adjust the brightness of the light source to achieve the desired brightness so that the picture can be as clear as possible.

⚠ hint

1) If the bending control mechanism stops functioning, or if you notice any abnormality during operation of the instrument, stop using it immediately. Release the rocker to the automatic zero (center) position and carefully withdraw the insertion tube from the object under observation.

2) If you hear a harsh electric sound inside the instrument when you move the joystick, please stop using it and use it only after checking that there is no abnormality.

3) You should develop the habit of slowly moving the joystick to operate.

4) Repeated bending of the insertion tube will reduce the maximum

bending value of the angled bend and keep the insertion tube as straight as possible.

5) Before starting the machine, make sure that the insertion tube and lens are in a straightened state. When the insertion tube is in a curled state, it is strictly forbidden to turn the tube to avoid damaging the traction mechanism.

8.8.7 Removing the insertion tube

- 1) Unlock the angle bend.
- 2) Remove the insertion tube.

⚠ warn

- Do not remove the insertion tube while the angle is bent, locked, or fine-tuned; this may damage the insertion tube and the object being observed.

- After being used in a high temperature environment for a short period of time, the temperature of the tip of the insertion tube becomes high and can only be used after it cools down.

- If the insertion tube is abnormal during removal, please gently turn the joystick to remove it. Do not use excessive force to avoid damage.

9 Instrument storage and maintenance

9.1 Cleaning

■ Cleaning the insertion tube

- 1) Use a lint-free cloth to wipe off any foreign matter on the

insertion tube.

2) If liquid (waste water or oil) comes into contact with the insertion tube, wipe it off in the following order :

- a) Wipe with a dust-free cloth or cotton cloth;
- b) Wipe with a neutral detergent and a dust-free cloth ;
- c) Wipe with a dust-free cloth dampened with water;
- d) Wipe away any water stains with a lint-free cloth.

 Notice

- To extend the life of the insertion tube, clean it with a lint-free cloth .

- Do not rinse the lens directly with tap water, as this may damage the instrument.

- Store the instrument horizontally at room temperature and keep the room clean and dry.

- Do not let it collide with other objects during storage, handle it with care and use it safely.

- When the instrument is not used for a long time, the function should be checked regularly.

 warn

- Keep the instrument out of reach of children and use it only after children are familiar with the usage rules.

- It is strictly forbidden to store the instrument in an environment with

high temperature, high humidity, strong light, strong shock, high dust, pollution or corrosion .

■ **Cleaning the LCD screen**

If fingerprints or stains are found on the LCD screen, wipe it clean with a dust-free cloth.

■ **Clean the main unit and operating handle**

If the host is found to be dirty, wipe it clean with a dust-free cloth.

Notice

● Do not use tap water to clean the instrument directly to avoid damage to the instrument.

9.2 Repacking

Re-packing the instrument in the following order: Operating based unit.

Notice

- 1) Store the operating insertion tube and based unit in the correct order. If they are not stored in the correct order, the insertion tube may be damaged.
- 2) When placing the insertion tube into the box, please handle it with care, otherwise the insertion tube may be damaged.
- 3) Store the insertion tube in such a way that it does not get bent.
- 4) Please lock the box's latches properly. If not locked properly, the box lid may open during transportation.
- 5) Before putting the main unit back into the box, please lay the box flat and close the cover carefully to avoid pinching your hands or

instrument accessories.

6) Please use the standard box , otherwise the instrument may be damaged or malfunction.

■ Fasten the box

If the box is hit during the move, the box lid may open. Check whether the box is fastened during transportation.

⚠ Notice

Fasten the four buckles of the box.

9.3 Storage precautions

1) Store the instrument under normal room temperature and humidity conditions.

2) Please turn off the power of the instrument before packing.

3) Place the instrument on a clean, dry, and stable surface.

⚠ Danger

Do not bend, pull, twist, or crush the signal cable with force; otherwise, breakage of the signal cable may result in a fire or electric shock hazard.

⚠ Notice

1) Do not store the instrument in locations with high temperature, high humidity, excessive dust or fine particles, direct sunlight, or where radioactive materials are emitted; otherwise, the instrument may be damaged.

2) When storing the instrument, please handle it with care and avoid collision with other objects, otherwise it may cause malfunction.

10 Troubleshooting

If the fault cannot be eliminated by following the following methods, do not use the instrument and contact Yateks official Services & Repair center:

① Check the instrument as described in Chapter 8 for any obvious faults.

② Abnormalities that cannot be resolved by following “10.1 Troubleshooting Guide”.

10.1 Troubleshooting Guide

Fault	Possible causes	Suggested Actions
Unable to shut down the system	Frequent operation freezes	Press and hold the "host switch" for 6 seconds to shut down and restart; remove the battery and restart
Video playback	AVI format, video cannot be played	You can open it with VLC Media Player
Cannot record photos or videos	U disk capacity is insufficient or the U disk is not inserted	Delete the files in the USB drive or insert the USB drive
After inserting the USB flash drive, it still shows that there is no card inserted	USB drive not properly inserted	Need to reinsert into the card slot
Automatic shutdown	If the ambient	Terminate the test, allow the

	temperature of the instrument is too high, it will automatically shut down.	instrument to cool down, and then restart it.
	Low battery will trigger automatic shutdown	Charging the instrument
The image is not clear enough	The front end of the insertion tube or the LCD screen is dirty	Wipe with a clean, dust-free cloth or cotton swab
The operating handle makes a squeaking sound	Motor noise	This is normal
Angle bending operation load is becoming more and more strenuous	Angle control motor overload	Extend the insertion tube as far as possible to reduce the amount of detour
Angle bends cannot return to their original positions.	Angle bend lock is set	Move the joystick at any time to release the angle bend lock
	Possibility to enter fine-tuning and stepping modes	the "Return/Motor Mode Switch Key" button  again , the angle returns to the initial position, and the direction can be positioned again .
Depth of field is wrong	Optical adapter threads not fully screwed in (only for interchangeable lens series)	Follow the steps in "8.8.5 Optical Adapter Installation" again.
Poor color reproduction	Wrong white balance setting.	Re-adjust white balance

When the battery is sufficient, a low battery reminder will pop up	Battery monitoring error	Don't worry, it will disappear in a few seconds.
The video recording cannot be turned off, it keeps recording again and again, and clicking on the file management will exit the APP	SD card is not in FAT32 format	Just format the SD card into FAT32

10.2 Instrument repair

1) Before returning the instrument for repair, please contact Yateks official Services & Repair center. When returning the instrument for repair, a detailed description of the fault and the environment in which the fault occurred must be included.

2) According to the warranty agreement, any faults that occur during the warranty period can be repaired free of charge. Please attach the warranty card when returning the instrument for repair.

3) This product does not have any parts that can be repaired by the user. Do not disassemble, modify or repair it. Yateks does not assume any responsibility for any losses caused by this. Repair services for this product are only provided by Yateks and authorized dealers.

Warnings

Yateks will not be held responsible for any losses caused by repairs not performed by Yateks personnel .

FCC Caution:

Labelling requirements

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Information to user

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Information to the user

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or

more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

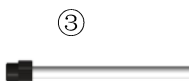
Specific Absorption Rate (SAR) information:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

- The portable device is designed to meet the requirements for exposure to radio waves established by the FCC. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue.

11 Insertion Tube Rigid Sleeve Instruction Manual

1. Rotate the steel pipe clockwise and install it into the lock block.



- ①-Handle
- ②-Lock block
- ③-Steel pipe
- ④-Inserting tube



Figure 1

2. Insert the insertion tube through the rigid sleeve from the handle end, and rotate the lock block clockwise to fix the insertion tube, and stop rotating when the insertion tube cannot be pulled.



Figure 2

3. Rotate the lock block counterclockwise, and stop rotating when the inserted tube can be easily taken out. Please keep the current tightness status of the lock block for next use.

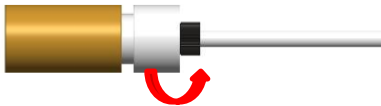


Figure 3

Note: After taking out the inserted tube after use, if the lock block is continuously tightened and kept locked for a long time, the fixed structure inside the handle may be deformed, causing it unable to use.

12 External use standards

Low Voltage Directive and EMC Directive	CE compliant	
WEEE Directive	WEEE compliant	
RoHS Directive	RoHS compliant	RoHS
FCC directive	Comply with the FCC	



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