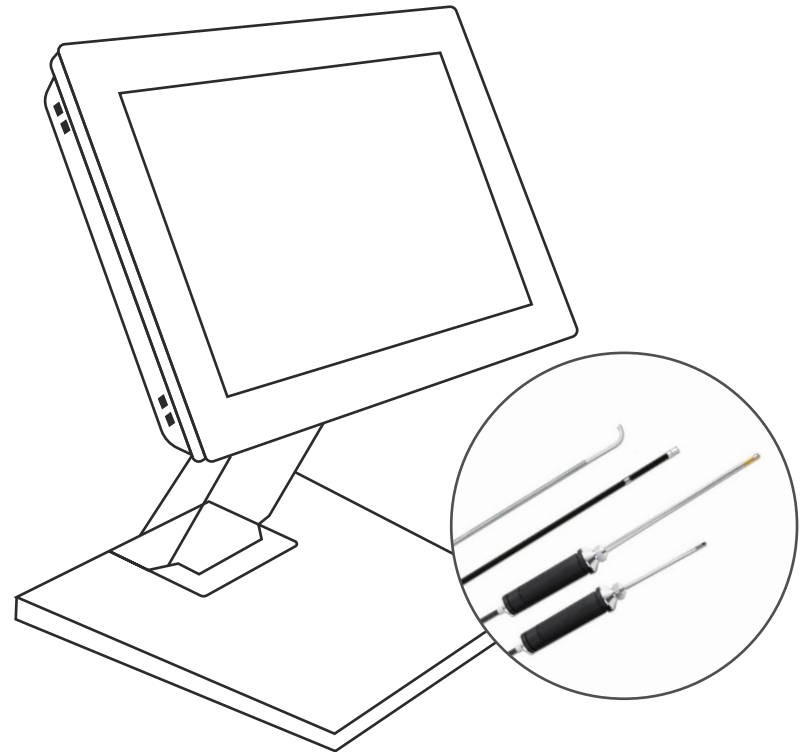


Industrial Borescope

User Manual



Warning: Before using this machine, be sure to read the instructions for use

Precautions

Before use, please read this manual carefully and thoroughly, and operate in strict accordance with the steps and instructions of this manual. If you have any questions, please contact your authorized dealer.

Use

This equipment is designed for internal inspection sites that cannot be seen from the outside. The use of this equipment should not exceed its own allowable range, in particular, you must not be used to observe the inner cavity of humans and animals. Or the company is not responsible for the resulting casualties.

Repairs and Modifications

This equipment contains no user serviceable parts. Please do not attempt to disassemble, modify or repair.

Warning

- Do not use non-original chargers to charge, this may cause damage to the instrument.
- Do not use in areas containing flammable gas, which may cause fire or explosion.
- Do not use this equipment that has not been powered off to prevent the risk of electric shock.
- Do not use the equipment in an environment full of fine particles such as metal dust.
- Do not look directly at the light emitted by the endoscope lens to prevent the strong light from damaging your eyes.
- Please try to place the insertion tube in a straight line, do not bend it too much, otherwise the internal wiring may be damaged or broken!
- After using the equipment, please clean the front end of the insertion tube of the instrument, otherwise it may be corroded.
- The probe part is manufactured with special design and precision. Do not push, pull or rotate the probe part with external force to avoid damage.

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1. Product Introduction

This series is differentiated according to the pixel of the camera, the diameter and length of the probe.

This industrial endoscope is precision visual inspection instrument consisting of consist of host, probe and power adapter.



2. Customized probes

Various types of endoscope probes can be customized according to the on-site testing environment.



- Tungsten wire
wear-resistant braided tube



- Alloy spring tube



- Alloy rigid tube

3. Preparation before use

3.1 Check the insertion tube section

- Check whether the insertion tube is damaged, and if there is a steering function, please confirm whether the steering is normal.
- Check the lens for damage.
- Check the lens for foreign objects or dirt, if any, please wipe it with a clean cloth or dry towel.

3.2 Connection handle

- Connect the endoscope probe aviation connector to the main engine aviation connector.
- Insert and tighten the nut of the aviation joint.

3.3 Connection adapter

- Insert the adapter header into the host DC header

4. System and function introduction

4.1 Turn on

Press the Power button to turn it on, and after hearing a beep, it means that the endoscope starts normally.

After the startup is completed, it will automatically enter the endoscope page. (As shown below).



Photo 3

4.2 Interface Introduction

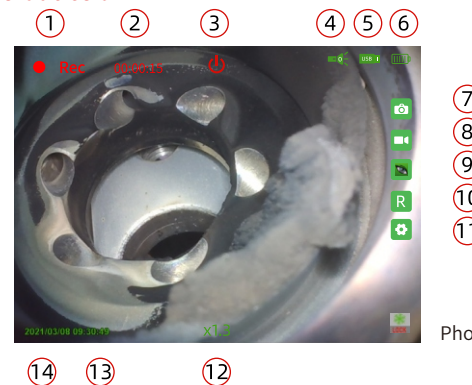






Photo 4

- | | | | | | |
|----------|-------------------------|---|--------------------------------|------------|-------------------|
| ● Rec | 1.Video mode | 🔋 | 6.Battery indicator | ⚙️ | 11Settings button |
| 00:00:15 | 2.Recording time | 📷 | 7.Photo button | x1.3 | 12.Preview scale |
| 🔌 | 3.Switch button | 📹 | 8.Record button | 2021/03/08 | 13. Time |
| 🔊 | 4.Illumination | 📺 | 9. Photo\Video playback button | 09:30:49 | 14. Date |
| USB | 5.U disk insertion mode | R | 10.Screen rotation button | | |



4.3 Photo

Click the photo button  to take a photo, click the photo/video playback button  on the main interface to take a photo or video playback (saved in custom storage path)

4.4 Video

Click the record button  to start the recording operation. After the recording starts, the recording time and recording time **Rec 00:00:15** will be displayed on the upper left state . Click the recording pause button  again to exit the recording mode.

4.5 Screen rotation

The orientation of the letter "R" in the chart is the current image rotation state  . Click the screen rotation button to rotate the image. Rotate 180 degrees clockwise  , mirror state display.

4.6 Image scaling

The preview scale is the default X1.0



Photo 5

4.10 Photo/Video playback



















Click the photo/video playback button  to enter the photo/video playback interface (as shown in photo 6)



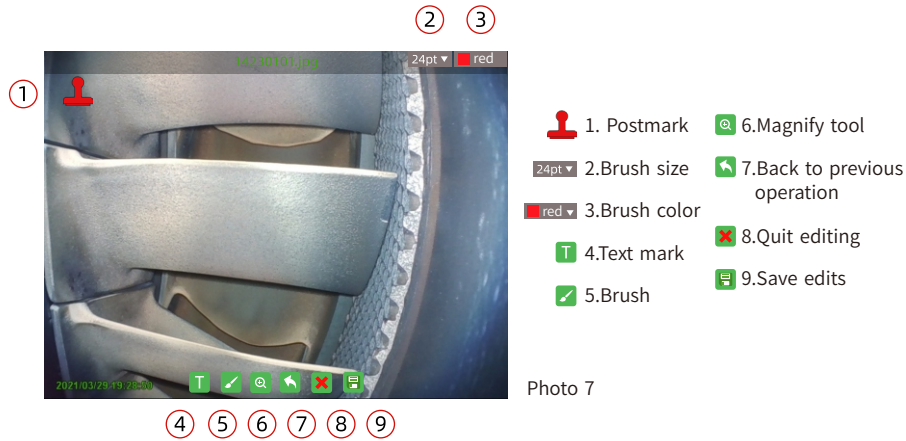
Photo 6



- | | | | |
|---|---------------------------|---|----------------------|
| 0101.jpg | 1.File name |  | 6.Photo spin button |
|  | 2.Forward button |  | 7.Zoom button |
|  | 3.Back button |  | 8.Delete button |
|  | 4.Back to previous button |  | 9.Play button |
|  | 5.Edit button |  | 10.Pause play button |

- Click the back/forward button  ,  to switch to the previous photo or video
- Click the return to the previous level button  to return to the storage path
- Click the delete button  to delete the current file
- Click the photo rotation button  to rotate the current picture
- Click the zoom button  to zoom the current photo.
- Click the play button  to play the video
- Click the pause button  to pause the current video playback operation

4.9 Picture editing



4.9.1 Postmark Tool

Click the postmark button → select the desired text size and color → click the note text below the postmark → select placement area → Done. The content of the postmark can be customized and changed



4.9.2 Text tool

Click the text tool , select the placement area, the handwriting input panel will pop up, select the desired text size and color. After the input is completed, click the "Insert" button in the lower right corner of the writing board, that is, the input can be completed. Click to switch To touch key mode for fast input of English letters





4.9.3 Brush tool

Click the Brush Tool button , and select the desired brush line width and color in the upper right corner. You can do whatever you want in the photo area to make graffiti, circled in red in the image below. Click the Back to previous operation button to return to the previous operation.




4.9.4 Magnify tool

Click the magnifying tool  to preview the photo, and the magnification number will be displayed above the magnifying tool .


4.9.5 Back to previous operation

Click back to the previous operation button  to return to the previous operation

4.9.6 Exit picture editing

Click Exit Editing button , a prompt box of "Exit Image Editing" will pop up on the display.

4.9.7 Save/save file

After the photo is edited, click the save tool ; the save option box will pop up, double-click "Replace original file" The edited photo will replace the original photo, double-click "Save As" (2) Save the original photo at the same time(As photo shown below).

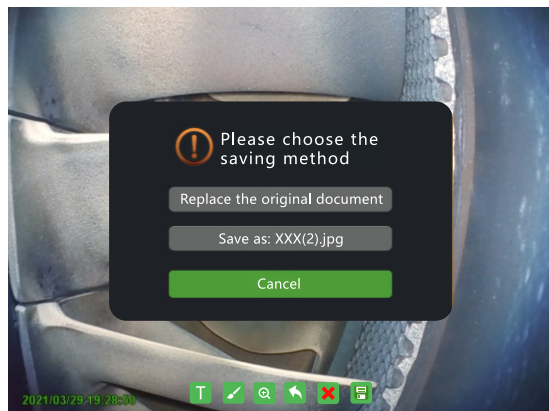



Photo 12

4.10 Set interface

Press the middle button of the menu navigation key or click the setting button  to enter the system setting interface.

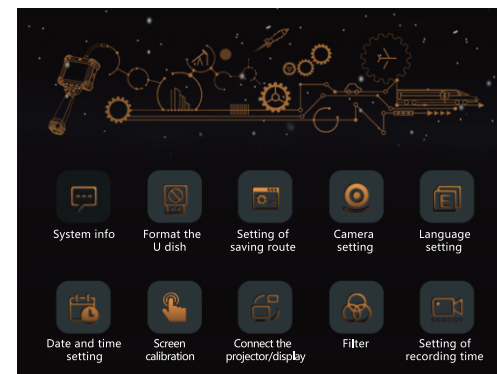


Photo 13

4.10 Set interface

Insert the U disk; enter the storage path setting interface (as shown in the photo), double-click to select the corresponding folder; After selecting the path, click the "OK button" to complete the setting of the storage path.

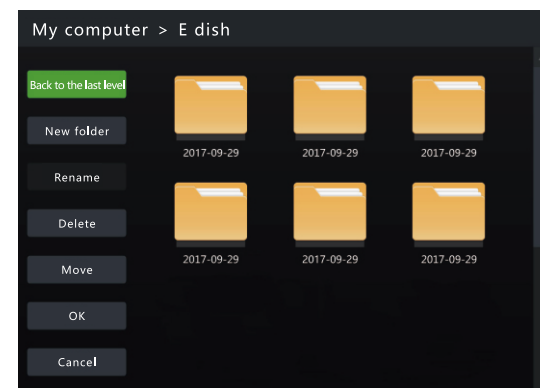


Photo 14

4.11.1 New folder

Click "New Folder" and the handwriting pad input method will pop up.

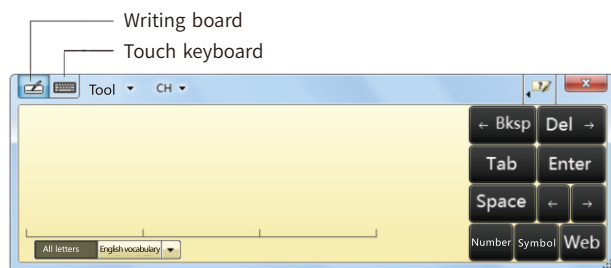


Photo 15

4.11.2 Rename

In the file storage path, click to select the folder or file that needs to be renamed, and then click on the left menu bar, click the "Rename" button to pop up the "Writing Pad" input method, click "OK" on the left menu bar after the input is completed to complete the file renaming.

4.11.3 Delete

Click the "Delete" button on the left menu bar, select the file/folder to delete (as shown in the photo), click the "OK" button; file deletion is completed.

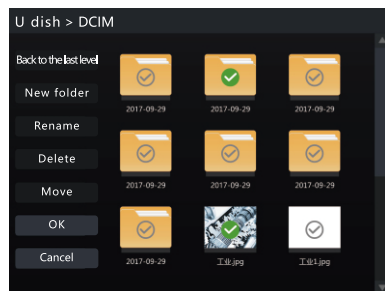


Photo 16

4.11.4 Move

In setting the storage path, click the "Move" button on the menu bar → tick the folder or file to be moved → Click the "OK" button → After finding the folder you want to place → Click the "Paste" button on the menu bar

4.12 Camera settings

Enter the camera setting interface (Photo 17). Click the drag bar to dynamically adjust the function parameters.

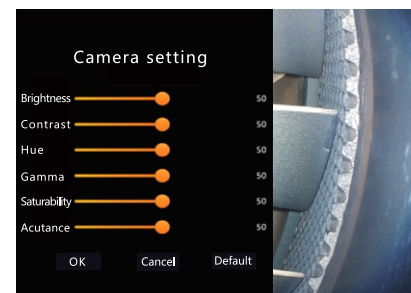


Photo 17

4.14 Format the U disk

Click the "Format U Disk" button on the setting interface to enter the U disk selection interface, select the disk to be deleted, and click "OK" to start formatting; click "Cancel" to return to the setting page.

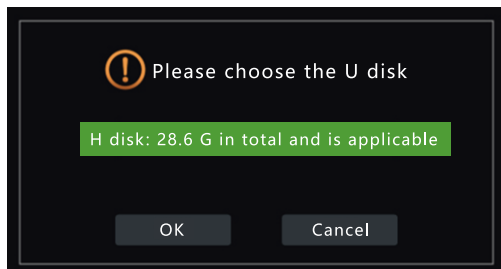


Photo 18

4.15 System message

Click "System Information" to view system version information and storage information.

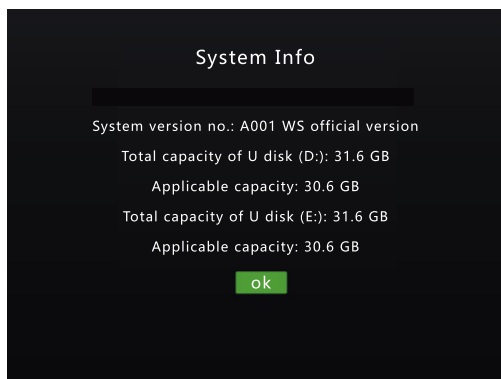


Photo 19

4.16 Language settings

Click "Language Setting" to select the corresponding language, and click "OK" to complete the language setting when finished.

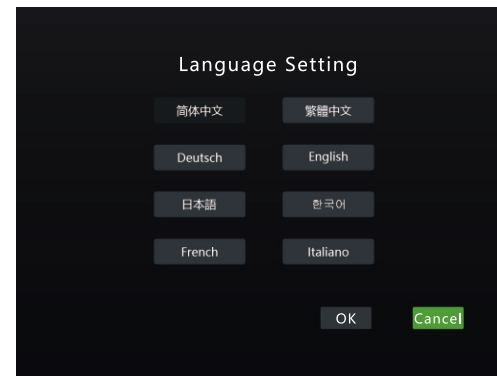


Photo 20

4.17 Date/Time Settings

Click "Date/Time Settings" to adjust the date/time function

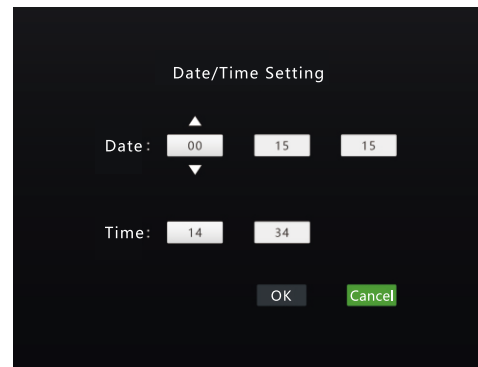


Photo 21

4.18 Filter

Negative film, low light mode, custom watermark, custom naming, date/time, watermark settings can be performed in the filter settings.



Photo 22

4.18.1 Negative

The negative film is mainly used to display the boundaries where the contrast of color and pixels changes drastically, and change the color of the high-contrast area into a bright color. Low-contrast areas are darkened, and other areas are in between, with hard edges becoming lines and soft edges becoming thicker, forming a thick profile shown in the picture.

Operation steps: Click the "Filter" option on the setting page, enter the filter page and select the "Negative Film" option; To cancel, select the "Cancel filter effect" option, and click the "OK" option in the lower right corner to complete the operation.

Normal preview effect



Photo 23

Negative film preview effect



Photo 24

4.18.2 Date\Time Watermark

After turning on the "Date\Time Watermark" option, there will be date and time in the lower left corner of photos and recorded videos display, as shown in the red box position.

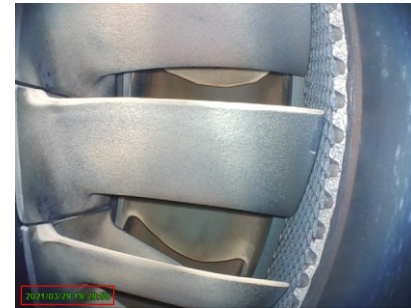


Photo 25

4.18.3 Custom Watermark

After setting the custom watermark text, the captured photos and videos will be marked with the corresponding text (Photo 26). In the "Filter" option, click "Custom Watermark" interface to pop up the input dialog box and touch keyboard (Photo 27), You can also switch to the writing pad for input, and click the "OK" option after completion; as shown in the figure.

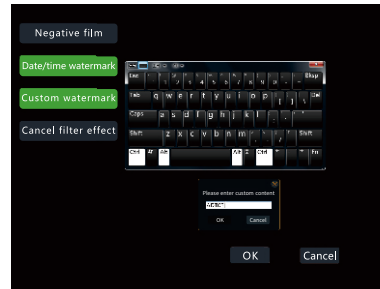


Photo 26



Photo 27

4.19 Turn Off

Press the Power button, or click the power button on the screen to power off

5. Routine maintenance

- Please keep the instrument clean and dry after use
- Do not use cleaning equipment such as autoclaving for cleaning
- Do not place the body in water or detergents
- Please clean with a lint-free cloth or dry soft towel

6. Package

Check all items in the package against the parts shown in the list. If missing or damaged, Please contact your authorized dealer immediately.



Accessories	Number
Host	1pc
Probe	1pc
Power adapter	1pc
Warranty Card	1pc
Qualified card	1pc
User manual	1pc
U disk	1pc

7. Troubleshooting

Fault	Possible reason	Solution
Unable to start up	No adapter	Connect adapter
Unable to read camera	No connecting probe	Please connect the probe to the endoscope host
Huaping	Workbench is not properly grounded	Contact an electrician to ground the workbench
No image	No connecting probe	Reconnect the probe and power on
Other questions		Please contact your authorized reseller