

Catalogus

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System Parameter

Controller Part

Monitor	10 inch TFT screen, resolution1920*1080
Lux.	3 leve adjustment
Language	Chinese, English , Spanish,Russian,French
Storage	below 1 TB

Crawler camera Part

Lens lifting height	120mm±10mm
Lens Pixel	2 MGP (1920*1080)
Front Camera	360 degree endless rotation ,220 degree flip, auto focusing
Rear camera	2 MGP,viewing angel: 175°
Zoom	10 times zoom in and out
Lens Lux	3 leve adjustment(16*10000LUX)
Lens Pressure	110Kpa-180Kpa
Rear pixel	2MGP
Wheels Dia	110mm/150mm
110mm inspection range	200mm-4500mm
150mm inspection range	300mm-4500mm
Turning Radius	425mm

Electrical Barrow Part

Take-up type	manual , electrical
cable diameter	7.8mm
cable length	100-150m

Common Fault Treatment Measurement

Fault 1: crash

Solution: Turn off the device first, and then check whether the SD card can work properly.

Note: It is recommended to use a high-quality SD card for this device.

Fault 2: Blue screen(no picture)

Solution: Check whether the lens is connected.

Note: Insert and unplug the lens after power off.

Fault 3: Unable to boot

Solution: Check whether the power supply is well connected or the equipment is in a state of insufficient power.

Note: When the device has not been used for a long time, it needs to be charged regularly every 1-2 months to avoid causes
The long-term battery loss has caused the device to fail to boot.

Fault 4: No screen at startup

Solution: Check whether the signal wire connection is correct.

Note: When connecting the socket, please pay attention to the gap corresponding, to avoid the device can not be used due to the damage caused by the wrong connection.

Fault 5: The image is inverted or tilted

Solution: Click the "reset" function, or check whether the lens is in direct view.

Note: Please reset the lens in time before shutting down the device.

Fault 6: Other faults

Solution: Send the photo or video ,please contact to manufacture.

Note: Do not disassemble or assemble this equipment without authorization, otherwise the warranty will not be possible.

Statement

This manual is only for this series of products. Due to limited editing time, there is no guarantee that there are no errors in this manual. This manual is a product series manual. Because of the different configurations, the product functions are also different. For the specific function configuration, please refer to the technical requirements at the time of purchase. Technical specifications are subject to change without notice.

Attention

1. please read the manual carefully before using.
2. When installing the equipment, use proper force to avoid affecting the normal operation.
3. It is strictly prohibited to rotate or twist the camera head. After using the camera, reset it (look straight ahead).During device installation, concave and convex grooves should be correctly installed to avoid device damage.
4. Pay-off car cable daily use to avoid broken skin, scratch, wear phenomenon. Periodic clearanceClean to extend its service life.
5. Ensure that the screws are tightened when connecting signal cables and connecting cables.
6. Pay-off car gear and lead screw can be regularly lubricated with butter.
7. Safety check should be carried out regularly to ensure that there will be no uncontrollable crawler in the process of use Damage.
8. This product has IP68 waterproof function.
9. This device is a precision instrument. Please handle it with care when handling.
10. If the equipment is not used for a long time, please charge the product in time, once every three months, each time The time is 3 hours.

Warranty

1. Warranty :12 months(From the delivery time).
2. Repair and replacement is free for any unartificial damage in the warranty period.
3. No warranty is provided for artificial damage by improper operation.
4. No warranty is provided for equipment damage caused by dismounting without permission by manufacture.

Record The Description Of Module Function Keys

1. If you need to record during use, press the buttonVideo recording.Press the button to start recording, this time controlA time marker will appear in the lower left corner of the screen.
2. Press the "Cruise" button, and then push the "Forward" button. No manual operation is required during the forward process.Press the "Cruise" button when you need to stop.
3. press the "character" key, the character is hidden on the screen, then press the "character" key, the character can be displayedShow.
4. The "ambient light" and "Dimming" keys can adjust the light intensity of the lens and the car body.
5. "Focus +" and "Focus -" can fine-tune the focal length to make the display image clearer.
6. swing the lever to "rotation +", the lens can be rotated forward; Swing lever to "rotation -", mirrorThe head changes the direction of rotation;
7. "Far" and "near" can quickly switch between far and near images to achieve the best display effect.
8. Press the "Reset" button, and the lens can return to the original position from different positions.
9. "emergency stop" key: emergency situation, ensure safety.
10. After the tractor completes its work, it is determined to plug in the clutch to collect the line.Adjust the speed governor to adjust the speed of the winding line to the appropriate speed to avoid a mismatch of the winding speed.For unnecessary damage caused, for example, by dragging the tractor too fast. When the line is almost closed, it should be first.Stop reel, close the reel button, and then stop the spider, to avoid the spider stop first caused by line alignment.The dragging of crawlers.

Note: If the tractor needs to turn around during use, retreat some distance successively to facilitate the tractor to turn around.Generate line resistance to avoid skid.

Instructions For Electrical Barrow Operation

· GT series electric pay-off barrow instructions

1. The main function of GT series electric pay-off car is to realize the function of electric pay-off, which depends on climbing car. Drag the wire tray to achieve the pay-off function.
2. pay-off when the power supply, adjust the brake pad (to ensure that pay-off with a certain friction resistance force), clutch pin in the separation state, climbing and dragging the wire reel can achieve pay-off.
3. line, adjust the brake pad, clutch pin in a state of combination, connect the controller and climb, connect the external power supply, check the normal function of the equipment, by adjusting the speed control knob, slowly accelerate, when the required speed is reached (the recommended speed is no more than 50 RPM), the line work can be achieved. Yes, when the winding is almost over, the winding speed will slow down until the winding is completed and the knob will be turned to the lowest. The speed is zero, and the winding is completed.
4. manual winding, clutch pin in the separation state, through the manual handle can realize the winding.
5. If there is an emergency, the speed control knob can be turned to the lowest as soon as possible or pressed quickly emergency stop button.
6. When the equipment is in use, it should not be tilted or put down, and it should not be exposed to rain or snow use.

· Needing attention for crawlers

1. non-professional personnel do not disassemble any parts above the spider.
2. The 6 wheels on the crawler cannot be mechanically rotated at will.

Robot Body Function

1. Smallest pipe diameter: 200mm (pls use 110mm wheels).
2. Robot body with ambient light, the ambient illumination can reach more than 8*10000 LUX. The front camera lens illumination can reach 12*10000 LUX. The rear camera illumination can reach 8*10000 LUX.
3. Anti-blocking rotation protection function, When there are small pipes or obstacles, the robot body is affected by the external environment and the electric machine stops working in order to protect the equipment. So press the "protect" button, then the robot camera work well.
4. Robot body with 6 wheels drive, strong power, longest length 150M.
5. Waterproof class IP68.
6. The pressure of the robot body is between 110 and 170 kPa. If the pressure lower than 110kPa, please inflate in time. If the pressure higher than 170kPa, please deflate through the filling hole.
7. Replacement wheel diameter 73mm-110mm.

Meter Counter Function

Accurate meter, meter meter in the robot body, accuracy to 0.1 meters.

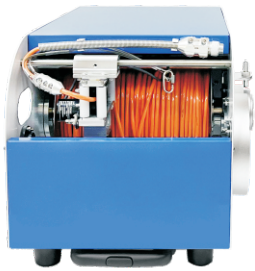
Standard Configuration



Box controller



Electrical Robot Camera



Wire Cable



Signal Wire

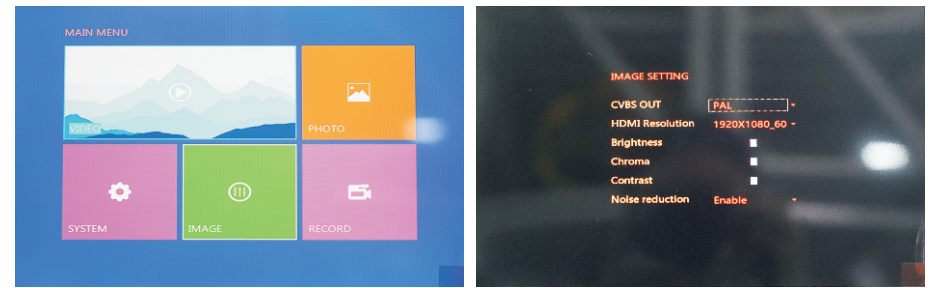


Power Line



32G USB flash drive

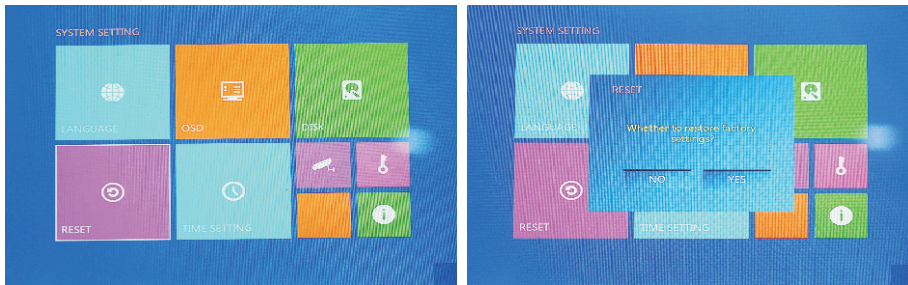
6、Picture setting: Click the "Menu" key to enter the menu interface, press the "up/down/left/right" key to select, click the "OK" key to set and edit, save the Settings, click the "menu" to return.



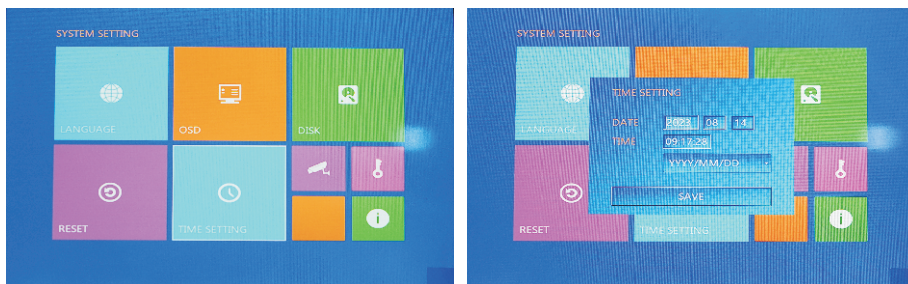
7、Video setting: Select the video setting by the "up/down/Left/right" key, Press the "OK" key to edit the setting, save the setting, click the "menu key" to return.



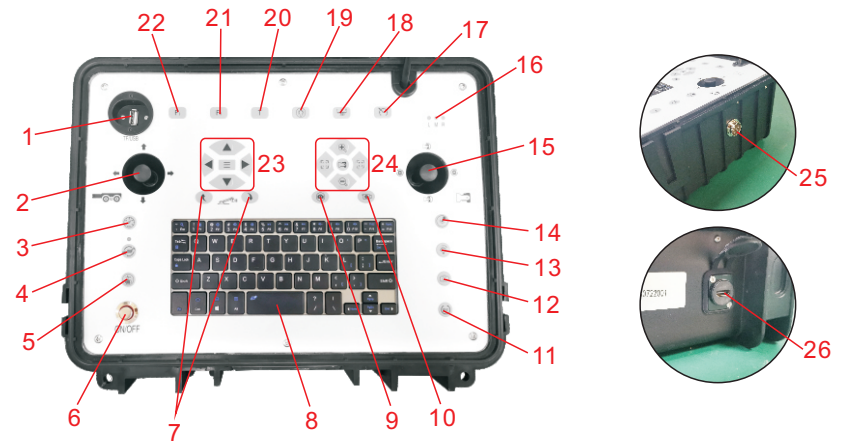
4、Restore factory Settings: press the "up/down/left/right" key to restore factory Settings, press the "OK" key to confirm the selection, press the "menu" to return.



5、Time settings: press the "OK" key to time Settings, press the "up/down/left/right" key to selection the time /date, press the "OK" to surem then press the "menu" to return.

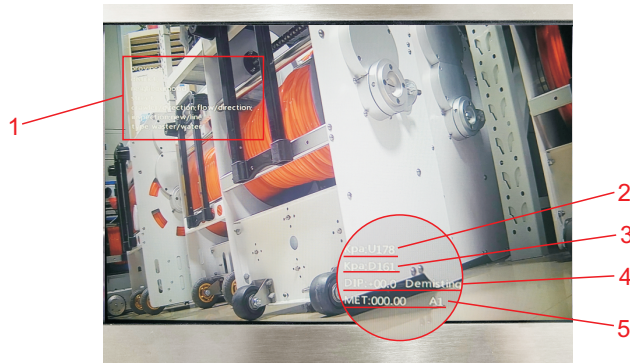


Control Panel Introduction



- ◎1—USB
- ◎2— Forward/Backward/Left/Right
Control the robot direction
- ◎3— Speed adjustment (reserved key)
- ◎4— Manual/electric switch (reserve key)
- ◎5— Remove Protection
When there is a block turn that the spider is in operation, Please click to remove the protection state
- ◎6— ON/OFF
- ◎7— Lift/Fall
Controls lift and fall of lens
- ◎8— Keyboard
- ◎9— Photo
Click to take the photo of the inspection screen
- ◎10— Video
(this button is spare button, Please Press PHOTO button ,long press is video)
- ◎11— Reset
press the button, the front lens reset, and the image erect
- ◎12— Camera Switch
For switch front and rear camera
- ◎13— Dimming
Adjustable front light brightness
- ◎14— Rotation Lock
- ◎15— Rotate/Flip
Control the front camera lens rotation and reversal
- ◎16— Position Indicator
The left and right sides are the flip indicator light, and the indicator light will be on when the spider lens is flipped to the limit Angle. The middle is the reset indicator light, and the indicator light is on after the reptile lens is repositioned
- ◎17— Cruising
- ◎18— Meter Counter
Turn on the meter counting function and display the data in the lower right corner of the screen
- ◎19— Ambient light
Turn on/off the front light
- ◎20— Character
Click this key in the detection process of bearing indication, detection time and other characters disappear, click the character display again
- ◎21— F2(Long time press to release the pressure alarm)
- ◎22— F1
It is for switch the large crawler camera and small crawler camera . (meanwhile, there's a data show on the screen ,A1,A2,A3 ,to match the larger and smaller crawler)
- ◎23— (Menu)Up/down/left/right
Inter the menu up/down/left/right (these two button is spare button)
- ◎24— Focus/Far/Near
Used to realize lens focusing and zoom function
- ◎25— Signal connector
- ◎26— HDMI

Display Character Introduction

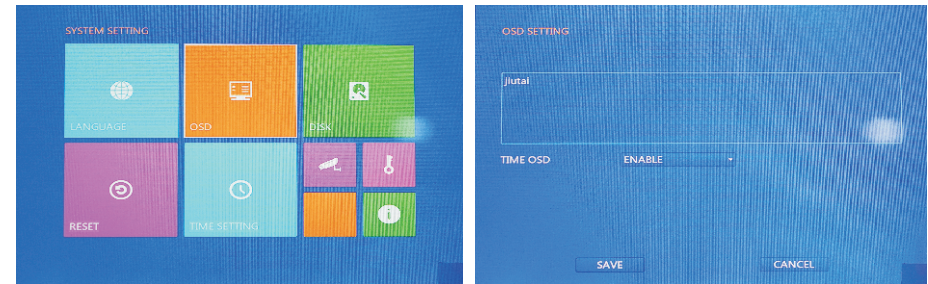


1. The upper left corner of the screen is the engineering editing section.
2. Bottom right, first row : "Kpa" is the pressure display of the front lens of the crawler.
3. Bottom right, second row : "Kpa" is the pressure value of the crawler body.
4. Bottom right, third row : "DIP" is the indicates the tilting Angle of the crawler, and "Demisting" indicates that the front-end defogging function of the crawler is enabled and disappears into the closed state.
5. Bottom right, fourth row : "MET" is the meter meter display of the detection line outlet, and "A1" is the crawler body conversion display in the crawler N+1 mode.

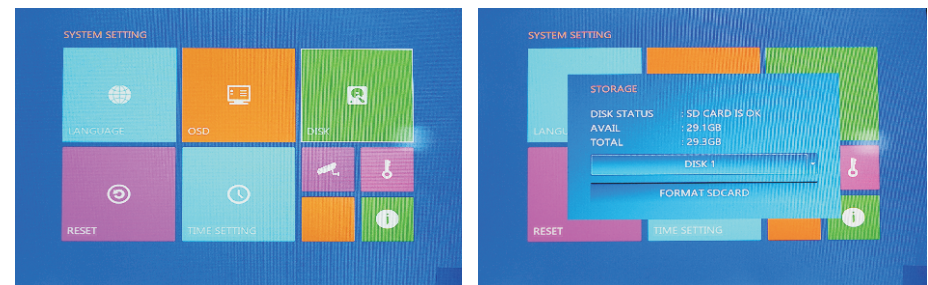
Note :

1. Defogging: When the device is powered on, the defogging function is automatically started, and "Demisting" is displayed on the controller. After 20 minutes, the defogging stops, and long press "F1" to continue to turn on the defogging.
2. Low pressure alarm: Automatic alarm when the pressure of the camera or crawler is lower than 120KPa.
Disalarm method:
 - a. Make the air pressure of camera and crawler higher than 120KPa at the same time.
 - b. Hold down F2.

2. OSD Setting: press "up/down/left/right" select the "OSD" system , press "OK" key, then edit the information and storage , press the " menu" to return.

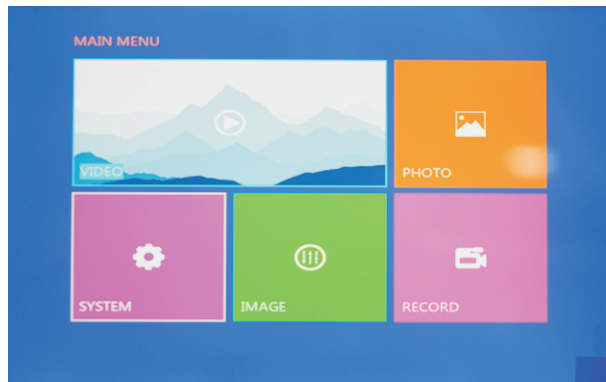


3. Storage Setting: press " up/down/left/right" key to change the format,press the "OK" to sure,Press " Menu" to return.

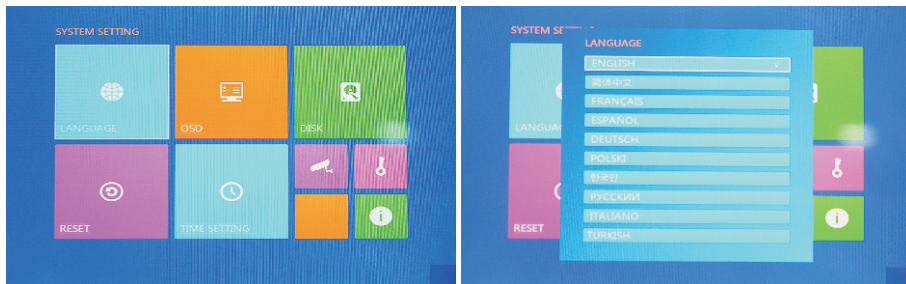


System Settings

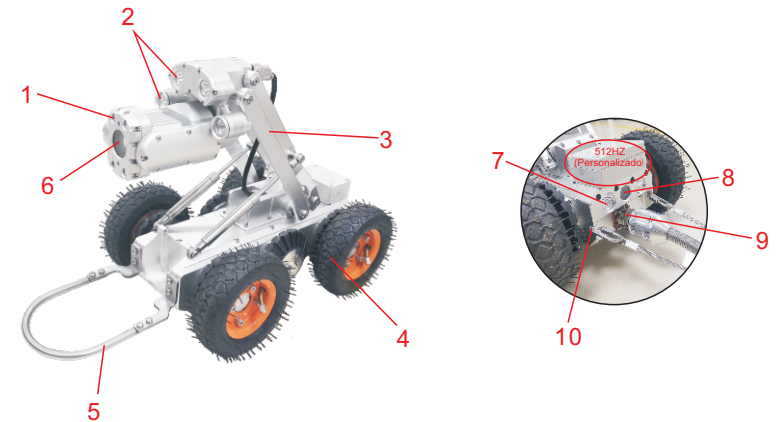
Get into the menu page, press the "up, down, left, and right" keys to select System Settings and press "ok" to open the secondary screen.



1. Language: select the language with the up/down/left/right key, click the "OK" key to confirm the selection, and click the "menu" to return.



Robot Camera Introduce

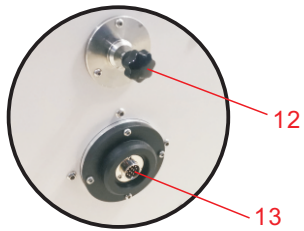
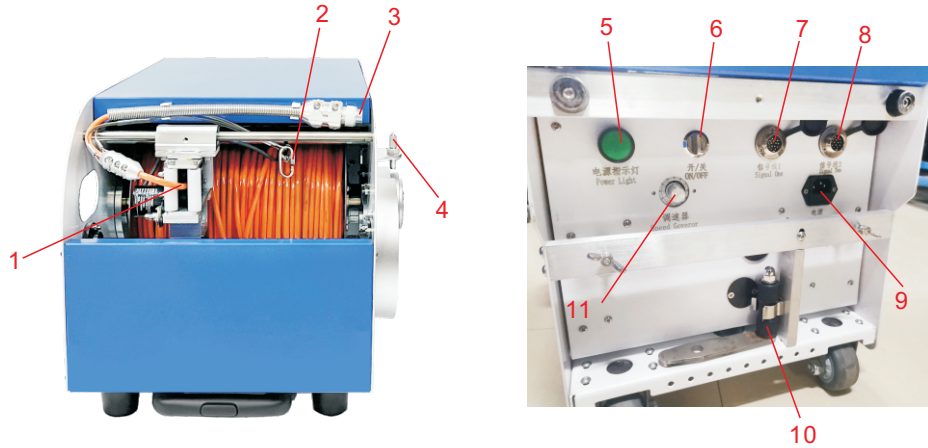


- ◎1—Front light source
- ◎2—Auxiliary lighting source
- ◎3—Electric lifting
- ◎4—Pneumatic tyre
- ◎5—Bumper
- ◎6—Front camera
- ◎7—Rear light source
- ◎8—Rear camera
- ◎9— inspection line interface
- ◎10—Reinforcement buckle ring

Note: The crawler has two charging valves, located in the lens and the crawler body . The air pressure should be kept within the range of 110-180kPA. If the air pressure is lower than 110kPA, it should be inflated in time to ensure the crawler's waterproof function. When inflating, open the screw cap corresponding to the inflating port, connect the inflating cylinder and pump air. As below:



Wire Cable Introduce



- ◎1—Inspection cable outlet
- ◎2—Pay-off car lock
- ◎3—Interface of crawler
- ◎4—Clutch
- ◎5—Power light
- ◎6—Main power switch
- ◎7—Signal Line 1
- ◎8—Signal Line 2
- ◎9—Power Interface
- ◎10—Pay-off rocker
- ◎11—Winding Speed Contro
(Developable Function)
- ◎12—brake
- ◎13—Signal line 1 is at the connection
port of the wire barrow

Photos Playback

- 1.Select Photo Replay through the Up/Down/Left/Right key and click “OK” to open it.
- 2.Select the image file,click “Ok” to open and view and click “Menu” to return.



Figure1

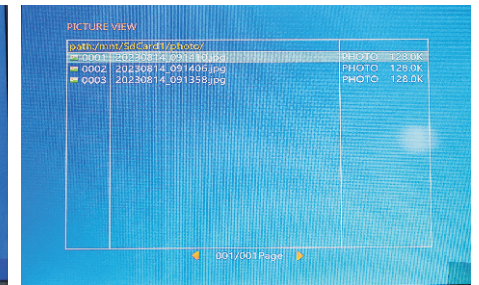


Figure2

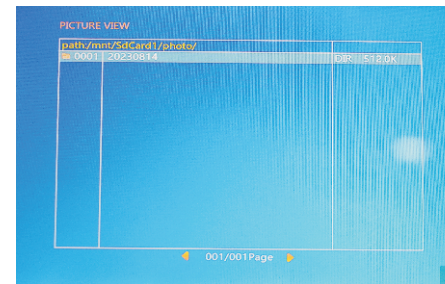


Figure3

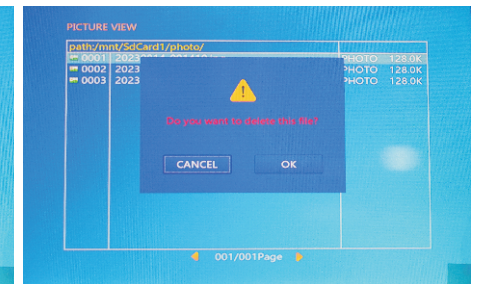


Figure4

Note: delete the picture/video,pls select the "Video" key, and the delete interface will appear to delete the picture/video.

Menu-Video Playback

Press “Menu” enter into Menu page.

1. Select “Video Playback” through the “Up/Down/Left/Right” key and click “OK” to open it.
2. Select the video file, click “OK” to open and play the video, and click “Menu” to return.

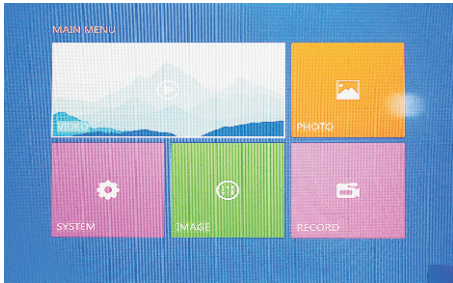


Figure 1

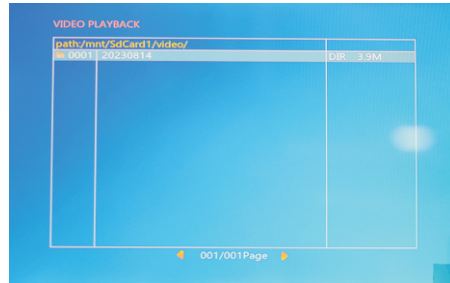


Figure 2



Figure 3

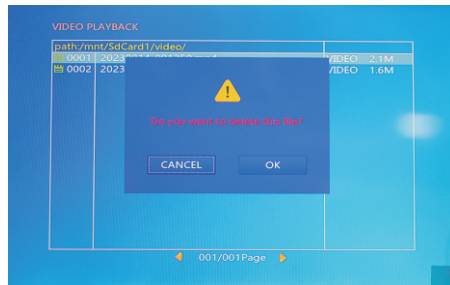


Figure 4

Note: delete the picture/video, pls select the "Video" key, and the delete interface will appear to delete the picture/video.

Electric Wire Barrow's Take-up And Pay-off Instruction

1. When the clutch pin is stuck in the card slot (as shown in Figure 1-2), the electric wire barrow's pay-off is in the automatic cable rewinding state. Turn the speed regulating knob under the indicator of the power box to start automatic cable rewinding.



Figure 1

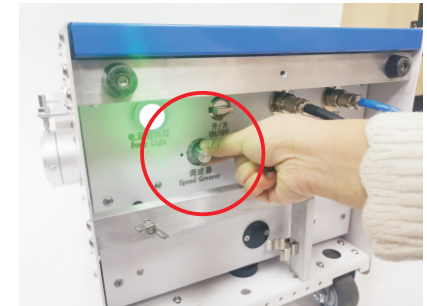


Figure 2

2. Pull the clutch pin upward and turn it clockwise outside the card slot (as shown in Figure 3-4), take out the manual rocker, and then start winding the wire manually. manual rocker, and then start take-up the wire manually.



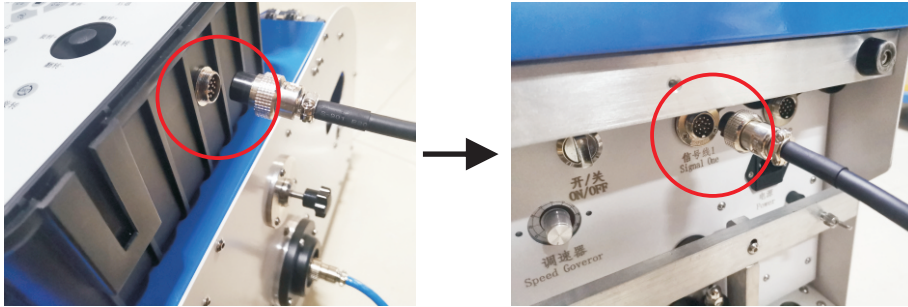
Figure 3



Figure 4

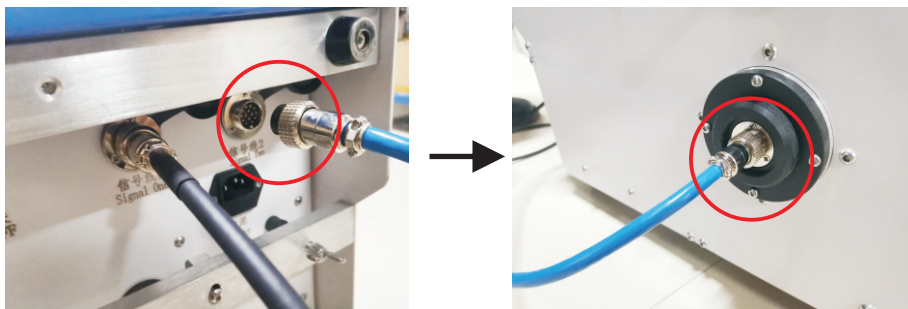
Connection Description

1. Connection description of signal line 1 (long wire)



Note: Connect signal line connect to the left of controller's interface, the other end of signal line connect to the interface of signal line 1 on the back of electric wire barrow .After confirming that both ends are connected, gently twist the connection lock to make it fit tightly.

2. Connection description of signal line 2 (short wire)



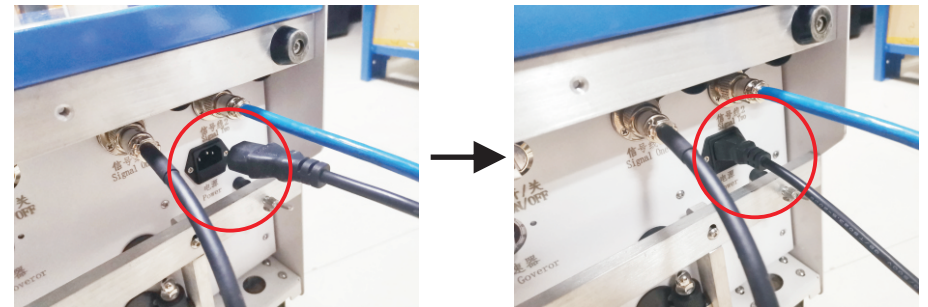
Note: Connect signal line connect to the signal line 2 socket on the back of the electric wire barrow,, the other end of signal wire connect to the right of electric wire barrow's interface,After confirming that both ends are connected, gently twist the connection lock to make it fit tightly.

3. Connect to Crawler robot camera and electric wire barrow



Note: When connecting, install the red spot at the signal interface of the detection line and the red part of the robot signal interface, push it inward and rotate it clockwise to lock it. If you hear a "click" sound, the connection is complete. (After use, turn counterclockwise and pull the interface outward to complete the disengagement).

4. Description of the connection of the power of the cable cart



Attention: in this step, the charging port is at the lower left of the back of the pay-off cart, providing sufficient power for the whole equipment (ac power should be ensured during the test).