# Sewer Pipe Inspection Camera System Manual



Please read this user's guide carefully before using this products

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Attention:The illustrations and screens which in this manual are to explain the operation of this product. Due to the difference in version upgrades and production batches, they might a little different from the machine you actually use. If the content in this manual does not match your machine, please refer to the machine!

#### 1. Notice

- 1. Please read the manual carefully before using it.
- 2. Handle it carefully during operation, avoid throwing down or pressing it heavily.
- 3. If the users disassemble or deliberately damage the machine, it will beyond the warranty.
- 4. Please turn off the display and pull out all the connection joints after using it.
- 5. Please copy your information before connecting the TF card.
- 6. Don't suddenly cut off the power during recording and playing. This may damage the product and video files.

# 2. Application:

- 1: pipe dredging machine
- 2: Pipe inspection camera Pipe tool
- 3: underground pipelines, air conditioning pipelines, oil and gas pipelines
- 4: Rescue work in a small space
- 5: For underground exploration
- 6: Underwater riverbed research
- 7: Underground TV

# 3. Specification

Camera and cable:

Sensor :1/3 CMOS

Resolution: 1080P

Camera Diameter: 23mm/50mm or PTZ camera ( optional)

Depth/Material: 5mm diameter (20m -70M fiber tube optional); 7mm diameter (20-40m fiber tube optional)

LED: White LED (Brightness can be adjustable)

Angle: 145 degree

Camera Material: stainless steel/ IP68 Waterproof

Camera Type: 23MM: Normal type/512HZ Locator/Self-Balance (Optional)

Notice: The cable of PTZ camera is different, this camera head can't be changed

#### IPS LCD Monitor:

Size: 10inch

Function:Video record/audio/photo/electronic zoom/power display/ meter

counter/keyboard input (support English)

Camera/Monitor image: Color Monitor input voltage: DC 12V

TF Card: Max support 128 GB card; includes 16G card

Display Resolution:1024\*600 IPS

Menu: Chinese /English/Russian/French/German Optional

Display Operation: Press button

Video format: AVI Photo format: JPG

Operate Temperature:-20-60 degree Storage Temperature:-30-80 degree

#### Control Panel:

Switch ON/OFF
Five-speed LED adjustment
Meter/feet conversion function
Meter Cleared function

keyboard input

Charger: D100VAC-240VAC DC 12.6V 1000MA Battery capacity: Lithium battery 12V 4500AH Battery working time: about 6-8 hours

Warm reminder: Please refer to the following related instructions for the product you purchased.

## 4. Monitor Operation



TF card: Includes 16G, Max support 128 GB card

- 1>. Turn on: Connect all cables, turn on machine, the system is starting up.
- 2>. Menu Setting (It needs to exit the record mode): Press MENU/EXIT button to enter menu setting, press >/PHOTO </ZOOM to select, press REC/- to confirm, press MENU/EXIT to exit,can do time setting/playback setting/display setting/record setting/system setting
- 3>Record operation: Press REC/- to start recording, press again to stop
- 4>.Hotkey operation:Press PLAY/+ to enter image browsing,press it again to enter video playback,press <> button to select,press REC/- to play, press it again to exit.
- **5>. Delete picture or video operation:** After entering picture or video browsing, press MENU/EXIT key to select,press >/PHOTO </ZOOM key to select delete mode, press REC/- to confirm

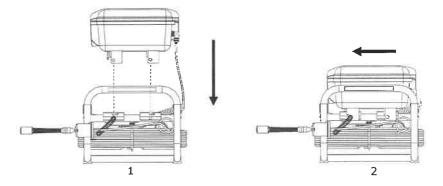
6>Hotkey Photo: press >/PHOTO to take a picture

7>Zoom Key: press </ZOOM to zoom in or zoom out 0-5 times

#### 5. Meter Counter Function

Press the clear key first before using this function, it will be counted the meter when the wire reel rotates, and the data is displayed on the screen in real time.

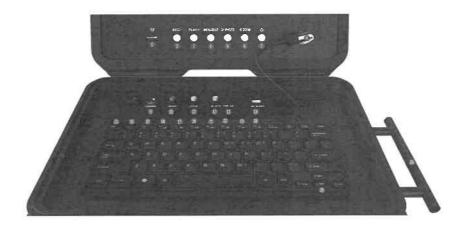
# 6. Plastic Box Installation



1>Installation steps: 1. Put the foot pad into the card slot 
2. Force to the right 
3. Insert the anti-falling pin

**2> Taking out Steps:** 1. Pull out the anti-dropping pin 2. Force to the left 3. Take out the plastic box

# 7. Keyboard Operation



#### Serial number:

- 9: Charging
- 10: Battery Switch (Note, please turn off the switch when don't use it)
- 11: Meter Counter Reset Button
- 12: LED brightness 0-5 gear adjustment
- 13: Work indicator
- 14: Keyboard key (USB Port)
- 15: ESC Character clear
- 16: F1 key, Rotate speed adjustment (low, middle, high)
- 17: F2 key, Horizontal rotation automatic/ manual
- 18: F3 key, Vertical rotation automatic/ manual
- 19: F4 key, Meter/Feet
- 20: F5 key, OSD Switch
- 21: F6 key, LED brightness adjustment (0-5 gear)
- 22: F7 key, Meter Cleared
- 23: F8 key, 512HZ Frequency Switch
- 24: F9 key; Factory setting key.

(F9 plus password to enter settings, then press F9 to save settings and exit)

(DEL key 720P 1080P selection)

25: UP/Down/Left/Right Wire diameter/Meter number selection)

Can input the text information /symbols to mark events during the work

#### 8. Build-in 512HZ Locator

It transmit a special frequency signal through the built-in chip

Transmit frequency: 512HZ

Output wave: Sine wave

Transmit Distance: about 5M

Notice: Keyboard F8 key: 512HZ frequency can be switched on or off

#### 9. 512HZ Receiver

The receiver has a built-in induction coil to receive the magnetic signal from the pipeline, and the coil generates an induced current to calculate the direction and position of the transmitter. There are two receiving modes: Far (note: about 5M) and Near (note: about 1 meter). Then adjust the sensitivity knob, peak mode (maximum) or null mode (minimum) to locate the transmitter

#### Receiver Technical Parameters:

Receiver Frequency: 512HZ Power consumption: <3W

Distance: about 5m

Battery: 3.7V 3000MAH built-in lithium battery

Charger: 5V1A

Charger time: about 6 hours

Battery Indicator: 3 gear, it is flashing when battery is low

Battery working time: about 10 hours

Signal strength: 6 gear Speaker: Support Detect Mode: Far/ Near

## 10. Charger

Charger: input 100-240V output 12.6V 1000MA

Note: Charging time: about 5-6 hours Charging status: Red LED on Full charging: Green LED on

It can't work when the battery is less than 20%

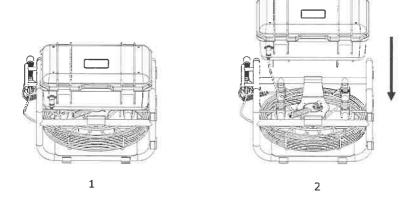
# 11. Camera Size

# Diameter 23MM 512HZ Camera head or Self-Balance Camera head:



Diameter 50C PTZ camera:

# 12. Wire Diagram



Note: The red part is a connection wire

- 1> Connect the connector of the plastic box and tighten it
- 2> Connect another connector to the meter counter box and tighten it

# 13. Protective Cover Operation

# The following are the steps to install the pulley



1. find out the seam on the 2 side of pulley



2. screw out the 8 screws on this 2 side by steps



 keep the screws and nuts carefully to avoid lost any one of them



4. detach the pully in half



5. Put pulley on the head of the camera



6. Screw the screws back to the pulley tightly

# The following are the steps to install the protective case



 find the mini screwdriver in the package



2. put the camera protective case on the camera head



3.screw the 3 white screw on the protective case, until it was fixed on the camera head

# 14. Warranty

- 1. From the day you purchase the machine, our company will provide free maintenance for the normal breakdown of the product within the warranty period.
- 2. Products of our company could enjoy one year warranty and can be changed within 15 days, if there are any quality problems.
- 3. Within the warranty period, if the machine is man-made dismantled or damaged despite of the requirements for using, maintaining, taking care of in the product instruction, we will ask for the cost fee for the components.
- 4. Warranty place: the defective products will be sent back to our company by the distributors. The SHENZHEN factory of our company will arrange maintenance work.

Model NO:		Purchase Date:	
Name		Contact	
Address			
Warranty Time	Warranty Record	Change Accessories	Warranty People