

**AHD UNDERWATER BOREHOLE CAMERA
WITH DVR & ELECTRICAL WINCH
ASSEMBLY AND OPERATING INSTRUCTION**



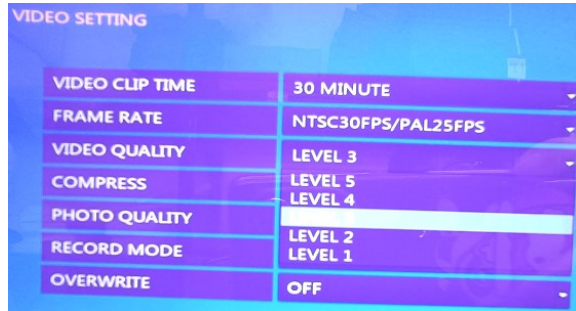
**Read these instructions completely before operating the device
PLEASE CHARGE BATTERY FIRST BEFORE USE!**

Specification

Monitor		
Screen size	13inch LCD IPS screen	
Display ratio	16:9	
Resolution	1280x720	
Menu	Chinese English and others	
Sunshade function	Yes	
HD DVR		
Support playback file format	Video	H.265 encode, MP4 format
	Audio	Audio and video synchronization
	Picture	JPEG
Audio input	External Microphone	
Video input	AHD analog high-definition signal(support CVBS signal input)	
Signal input	CAM1、CAM2 and ACR+BNC	
Video system	AHD PAL、AHD NTSC(Support CVBS signal input)	
Video input	Stereo audio output (Internal Audio or External Audio)	
Video output	Composite video signal output	
Power Supply		
Power for DVR control unit		
External charge	DC12V (Input voltage AC 100V~240V, Output voltage DC:12.5V, Current 3000mA)	
Battery	11.1V 8800mA/H	
Battery charge time	6hours	

Packing List

Item	Name	Quantity
1	Camera head	1pcs
2	Cable reel	1pcs
3	DVR control unit	1pcs
4	Video Link cable(6pin)	1pcs
5	Meter counter link cable(8pin)	1pcs
6	Camera skid	1set
7	Working platform	1pcs
8	32G USB disk	1pcs
9	Charge adaptor	1pcs
10	User manual	1pcs
11	Tool bag	1pcs



Video clip time: 1 MINUTE / 5 MINUTE / 10 MINUTE
15 MINUTE / 30 MINUTE / 60 MINUTE
Default value: 30 MINUTE

FRAME RATE: NTSC 30FPS / PAL 25FPS

Video Quality: It has 5 options. Usually we choose Level 3.
The level is bigger, the video resolution is higher

Compress: H265

Photo Quality: High / Middle / Low
Default Value : High

Record Mode: Manual / Auto
Default Value : Manual

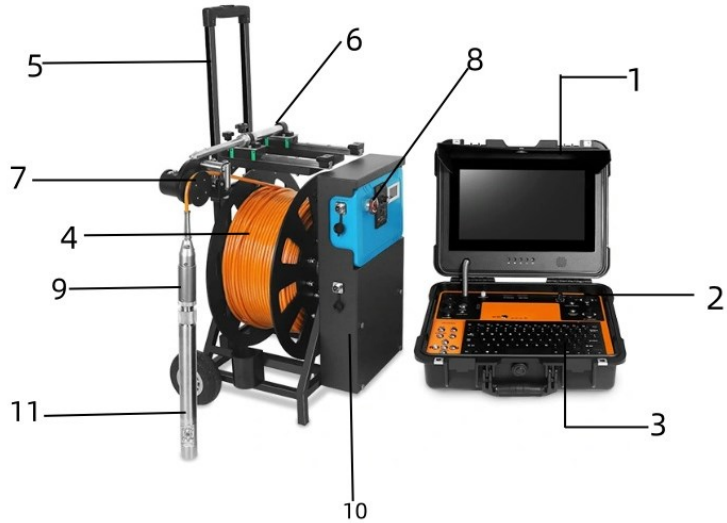
Overwrite: OFF/ON
Default Value : OFF

Battery work time	8~10 hours
Power for Electrical Winch	
DC power	DC24V
AC power	AC119V to 230V
Dual view Camera head	
Camera diameter	Dia.45mm x L450mm
View range	Pan 360 degree rotation endless (slip ring)
Lighting	6pcs high light LED for side camera 6pcs high light LED for down camera
Camera sensor	1/3 CMOS, 1.3MP 960P
Operating temperature	5°C ~ 50°C
Camera housing material	304#Stainless steel
Waterproof	IP68, 30bars
Cable wheel	
Special protective connector to camera	
Dia.8mm soft cable	
Cable length: <input type="checkbox"/> 100 meters <input type="checkbox"/> 150 meters <input type="checkbox"/> 200 meters	
Other function	
Meter counter	Feet and Meter switch. Display on the screen
Keyboard	Support wired and wireless keyboard.

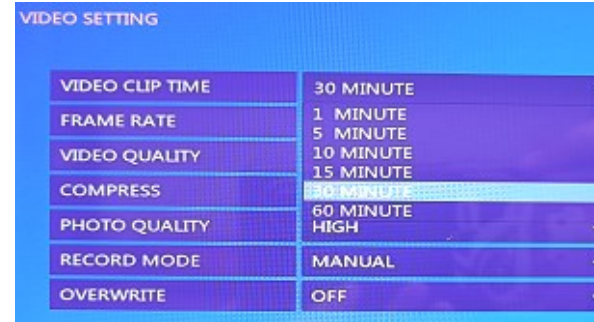
Attention

1. Please read the user manual carefully.
2. Using wireless keyboard, please make sure the battery for keyboard is full. If battery is low, you need to change a new 7th battery.
3. Using original charger adaptor to charge battery or support unit work.

Know Your Device



- 1: Sun shade
- 2: Control box
- 3: USB wireless keyboard
- 4: Cable Reel
- 5: Extension rod
- 6: Extend arm
- 7: Depth Counter
- 8: Emergency brake
- 9: Cable connector
- 10: Control unit for Electrical winch
- 11: Camera head

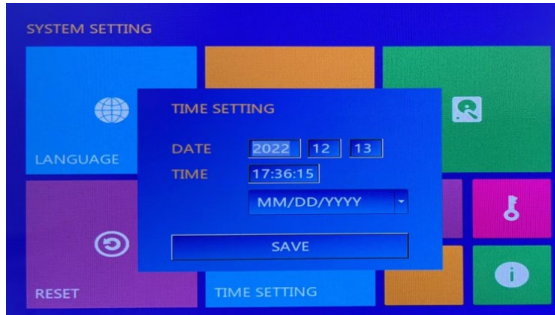


Adjust the LCD screen brightness, Contrast
 Default resolution: 1280x720_60

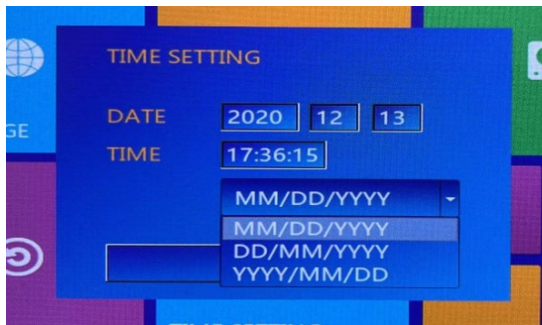
Usually we suggest the customers don't change these value

RECORD Setting



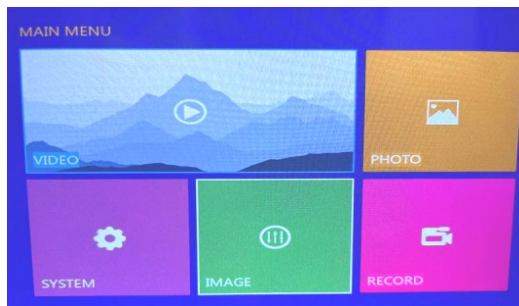


Press UP/Down/Left/Right arrows to set the date and time.
Press“Save ”to save the setting

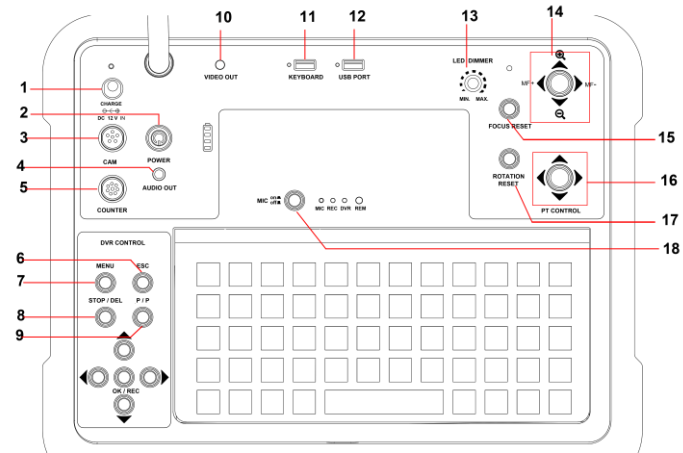


For date format, it has 3 different ways.

IMAGE SETTING



Control box panel



- 1) CHARGE: Insert charge adaptor,charge the battery.
- 2) POWER: Power key.Press it down, turn on the control box.
- 3) CAM: 6pin port. Signal input.
- 4) Audio out: Connect external earphone
- 5) COUNTER: 8pin port. Connect meter counter link cable
- 6) ESC: Exit
- 7) Menu: DVR main menu
- 8) STOP/DEL: Stop recording the video. Delete the files in menu
- 9) P/P: Pause / Photography
 - Up: Move up /Zoom in Down: Move down /Zoom out**
 - Right: Move right Left: Move Left
 - OK/REC: Confirm / Record the video
- 10) Video out: Video output.(Connect outside monitor)
- 11) KEYBOARD: Connect wireless or wired keyboard
- 12) USB PORT: Connect external USB flash disk storage device
- 13) LED DIMMER: Adjust camera led brightness

14) Joystick: (Zoom function is only available for zoom camera)

🔍 : Zoom out 🔍 : Zoom in
 MF+ : Far focus MF-: Near focus

15) Focus reset: One key to original focus

16) PT CONTROL: Camera rotation joystick

17) Rotation reset: Camera backs to original direction

18) MIC: Record the audio.

Remote controller

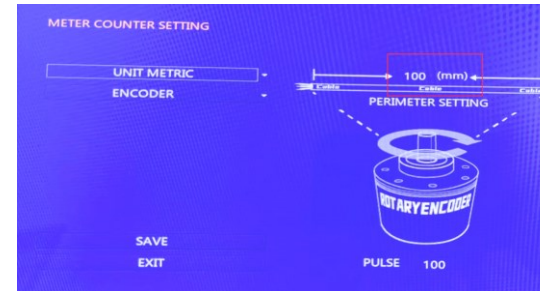


Button	Function
REC	Recording video
SNAP	Screenshot / Photography
▲	Up / Zoom in
▼	Down / Zoom out
◀	Left/Backward(Playback Model)
▶	Right/Forward(Playback Model)
OK	Confirm
MENU	DVR menu
STOP	Stop recording
ESC	Exit
PLAY	Playback the video
DEL	Delete the video or picture file

1. LANGUAGE: Setting the menu language.

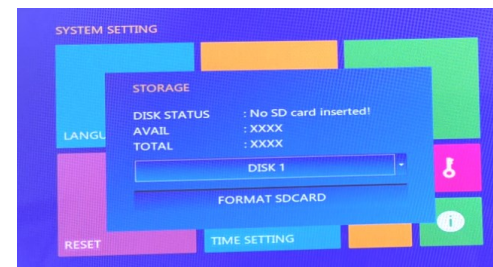
The box has 9 languages.(English,Chinese,French, Espanol German,Polish,Korea,Russian and Italian.

2.ENCODER: Setting the counter value



The **PREMETER SETTING** value is different for different cables. For borehole camera, the value is 157.

3.DISK: Format the USB flash driver.





The default value is “DISK1”.

4. RESET: Restore the factory default Settings

5.TIME SETTING: Setting the time, date

Operating instruction

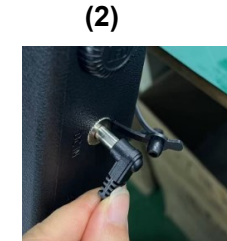
- 1) Press menu button to enter main menu, then press UP/DOWN/LEFT/RIGHT arrow to choose the submenu
- 2) Press  button to confirm.
- 3) Press  button to exit the submenu

System Setting

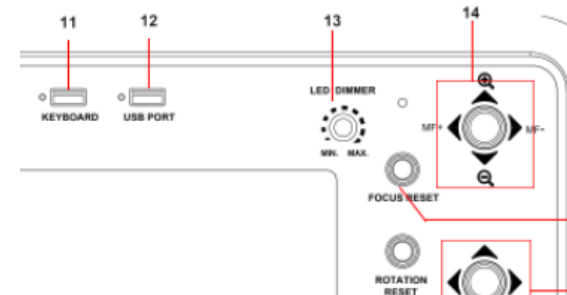


Charge the battery

- 1) Connect the charger to the socket, the indicator of charger will turn into green.
- 2) Connect the plug to the jack of control box.
- 3) The battery is charging, the indicator light is red. When the battery is full of power, the indicator of charger will turn into green.



Wireless keyboard operation instruction



1. Inset USB adaptor to Keyboard USB port (No.11)
2. Switch Knob to "ON", the screen display cursor, then typewrite the character.
3. F8: Display the character F9: Hidden the character
F10: Clear the character
4. If the keyboard battery is low level, please change a new one. Otherwise it can't typewrite the character.

Cable reel part



Assemble the equipment

1. Take out all parts from the package. Count the items as the packing list.

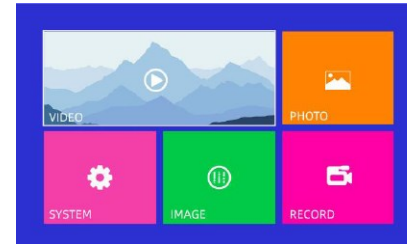


2. Install the cable to depth counter part.



DVR menu instructions

Press menu button to enter the main menu



1. Video: Playback the video file



Press the "UP" and "DOWN" keys to select files

Press the "LEFT" and "RIGHT" keys to turn pages,

Press "OK" key to play the file, "STOP, DEL key" to delete files.

2. PHOTO: Playback the picture file

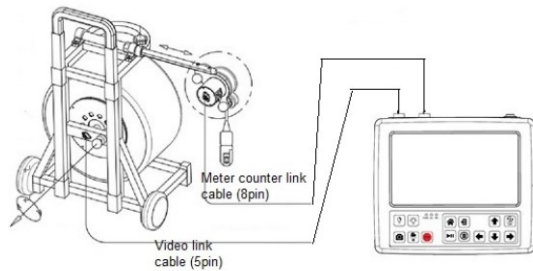
3. SYSTEM: Setting language, date, time ...

4. IMAGE: Image setting, such as CVBS out, HDMI

Resolution, brightness, chroma, contrast, noise reduction

5. RECORD: Video setting, such as video clip time, frame rate, compress, photo quality, record model, overwrite.

- Connect the link cable to cable reel and DVR control unit
8pin link cable is for meter counter
6pin link cable is for camera signal input



- Connect AC power or DC power to electrical winch
- Press DVR "POWER" button with 5 seconds to turn on the system
- Adjust the speed knob to roll down or up the cable

Recording Video

- Insert the USB flash driver to control box "USB port"
- Press "II" to start record video .
- Press "II" again to pause recording video.
- Press "STOP" to save the recording

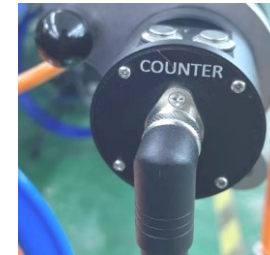
Photographed function

- Press "📷" to take a picture
- When you are recording the video, it also can take pictures. .

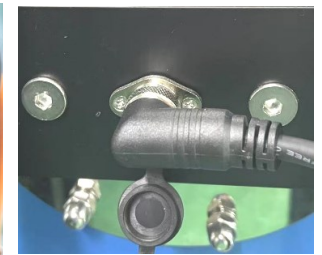
- Install the working platform to the cable reel.
- Open the control box, connect 2 link cables from control box to cable reel.



(To Control box: right-angle end)



(To cable reel: 90 degree end)



- Install the centralizer guide to cable reel.
- Take out the wireless keyboard adaptor from keyboard
- Insert USB flash driver and Keyboard USB adaptor to the control box



- Power on the control box.
- Install the control box to the working platform.



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