

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	32G USB disk	1pcs
8	Charge adaptor	1pcs
9	User manual	1pcs
10	Tool bag	1pcs

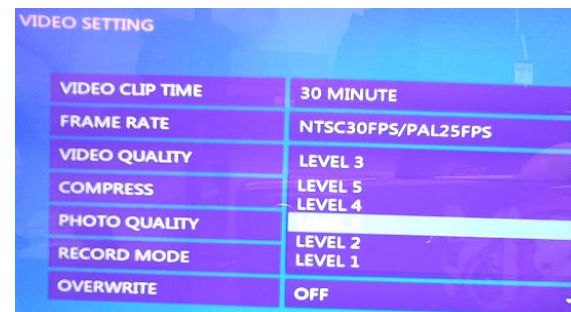
AHD UNDERWATER BOREHOLE CAMERA WITH DVR CONTROL BOX ASSEMBLY AND OPERATING INSTRUCTION



**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	Built-in Microphone	
Video input	AHD analog high-definition signal(support)	
Signal input	CAM	
Video system	AHD PAL、AHD NTSC(Support CVBS signal)	
Video Input	Stereo audio output	
Video Output	Composite video signal output	
Power support		
External charge	DC12V (Input voltage AC 100V~240V, Output voltage DC:12.5V, Current 3000mA)	
Battery	11.1V 8800mA/H	
Complete system power	20W (Max)	
Battery charge time	8hours	
Battery work time	5-6 hours	



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

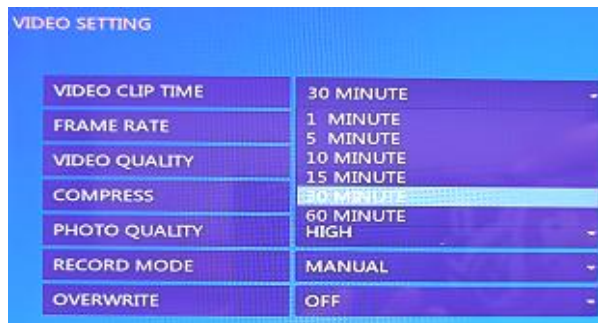


Adjust the LCD screen brightness, Contrast

Default resolution: 1280x720_60

Usually we suggest the customers don't change these value

RECORD Setting

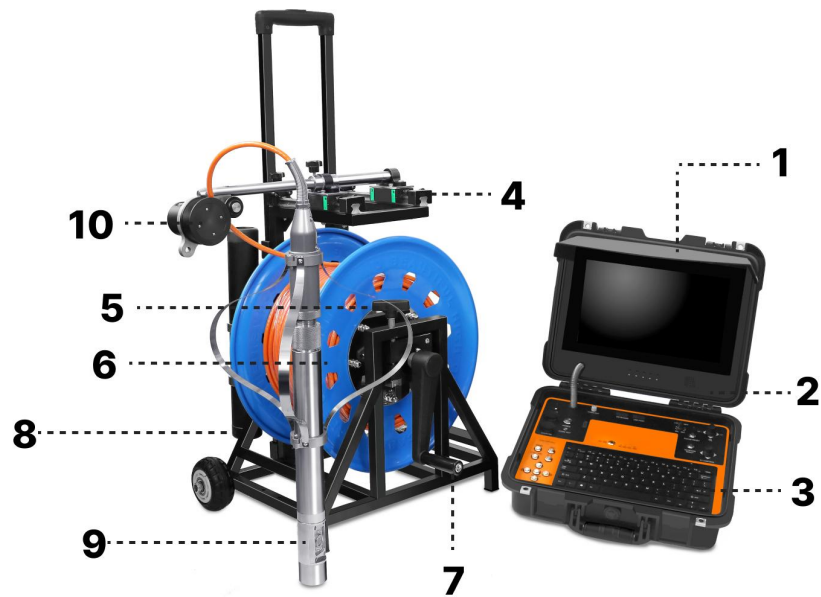


Dual view Camera head	
Camera Diameter	Dia.45mm x L422mm
View range	90 degree
Lighting	6pcs high light LED for side camera 6pcs high light LED for down camera
Camera Sensor	1/3 CMOS, 1.3MP 960P
Operating temperature	5°C ~ 50°C
Camera housing material	304#Stainless steel
Waterproof	IP68,30bars
Cable wheel	
Special protective connector to camera	
Dia8mm special copper 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.

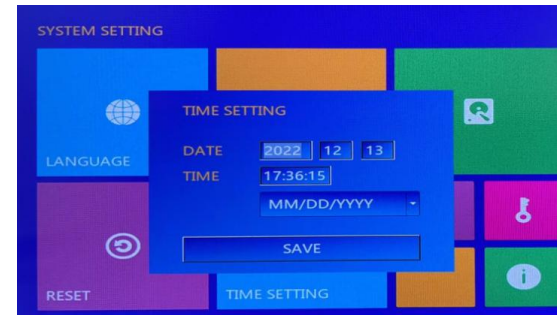
Attention

1. Please read the user manual carefully.
2. Please format the USB flash disk or USB hard disk on the DVR control box before first use the product
3. Using wireless keyboard, please make sure the battery for keyboard is full. If battery is low, you need to change a new 7th battery.
4. Using original charger adaptor to charge battery or support unit work.

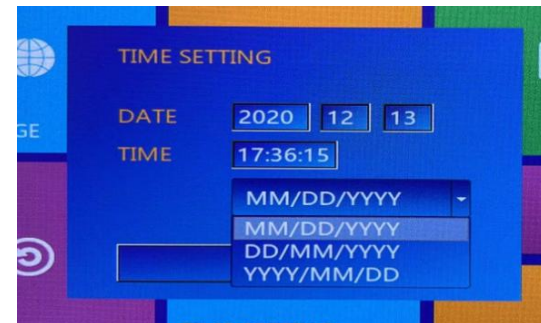
Know Your Device



- | | |
|---------------------------|-------------------|
| 1: Sun shade | 2: Control box |
| 3: USB wireless keyboard | 4: Guide rail |
| 5: Reel brake | 6: Cable reel |
| 7: Manual cranking handle | 8: Camera socket |
| 9: Camera head | 10: Depth counter |
| 11: Extend pole | |

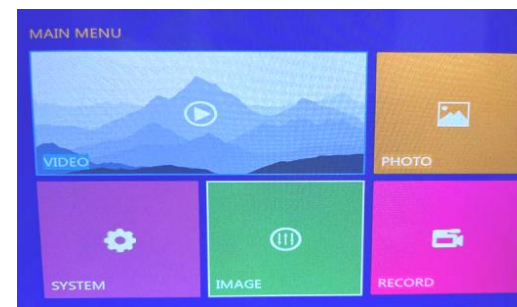


Press UP/Down/Left/Right arrows to set the date and time.
Press "Save" to save the setting



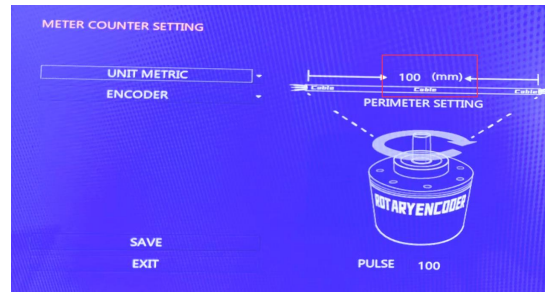
For date format, it has 3 different ways.

IMAGE SETTING



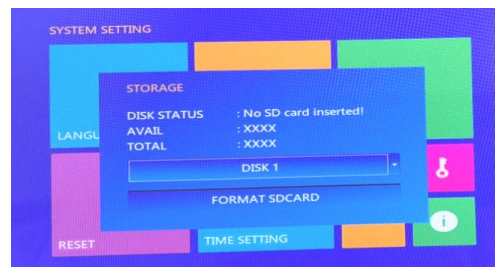
- 1、 **LANGUAGE:** Setting the menu language.
The box has 9 languages.(English,Chinese,French, Espanol German,Polish,Korea,Russian and Italian).

- 2、 **ENCODER:** Setting the counter value



The **PREMETER SETTING** value is different for different cables.
For V13-BCS borehole camera, the value is 165.

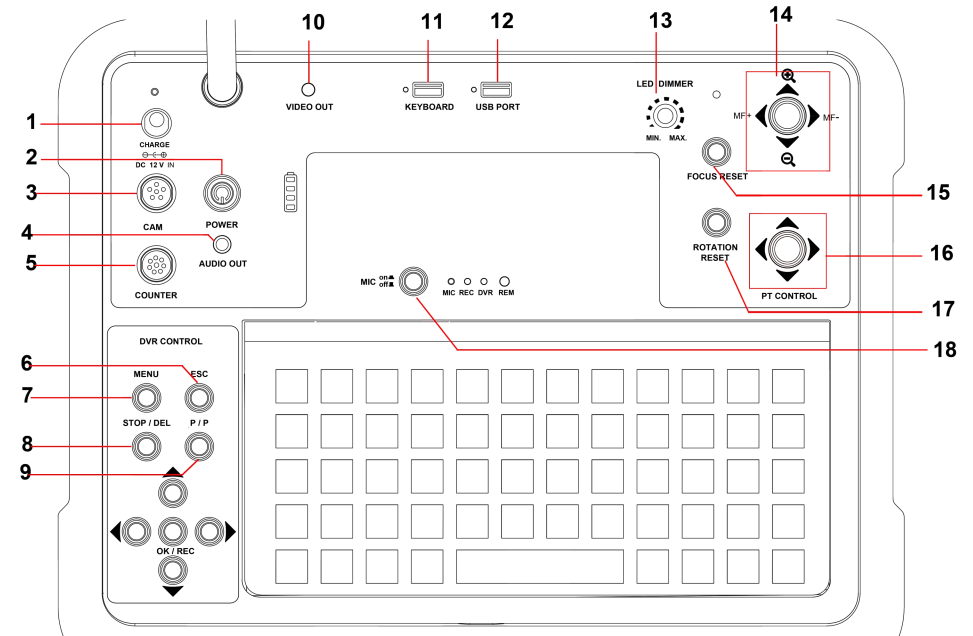
- 3、 **DISK:** Format the USB flash driver.



The default value is **"DISK1"**.

- 4、 **RESET:** Restore the factory default Settings
- 5、 **TIME SETTING:** Setting the time,date

Control box Panel



- 1) **CHARGE:** Insert charge adaptor,charge the battery.
- 2) **POWER:** Power key.Press it down, turn on the conton 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) Joystic: **(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.

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

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

Press"OK/REC " button to play the file, "STOP/DELETE " button to delete the file.

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.

System Setting






1) **LANGUAGE:** Setting the menu language.


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

6. Press DVR “POWER” button with 5 seconds to turn on the system.

Recording Video

- 1.Insert the USB flash driver to control box“USB port”
- 2. Press “” to start record video .
- 3. Press “” again to pause recording video.
- 4. Press“”to finish the recording

Photographed function

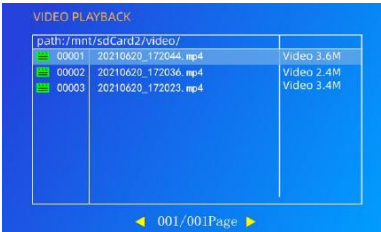
- 1. Press “” to take a picture
- 2. When you are recording the video, it also can take pictures. .

DVR menu instructions

Press menu button to enter the main menu



1. Video: Playback the video file



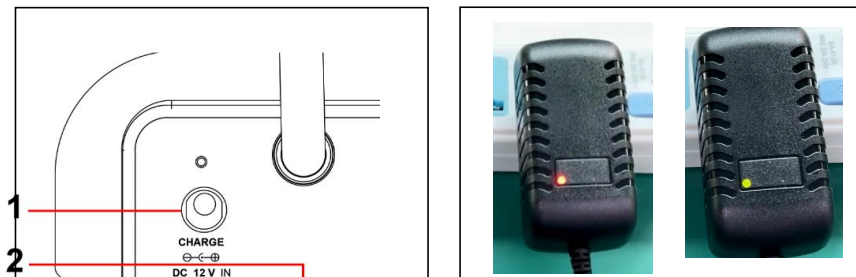
DVR remote controller



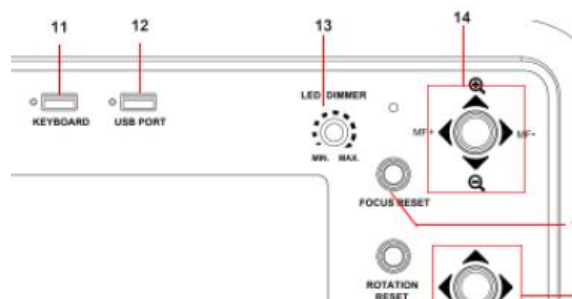
Button	Function
REC	Recording video
SNAP	Screenshot / Photography
▲	Up
▼	Down
◀	Left/Backward(Playback Model)
▶	Right/Forward(Playback Model)
OK	Confirm
MENU	DVR menu
STOP	Stop recording
ESC	Exit
PLAY	Playback the video
DEL	Delete the video or picture file

Charge the battery

- 1) Inset 12.5V/2A charge adaptor to charge port 1
- 2) Charge adaptor indicator light is red, the battery is charging
- 3) Charge adaptor indicator light is green, the battery is charged full



Wireless keyboard operation instruction

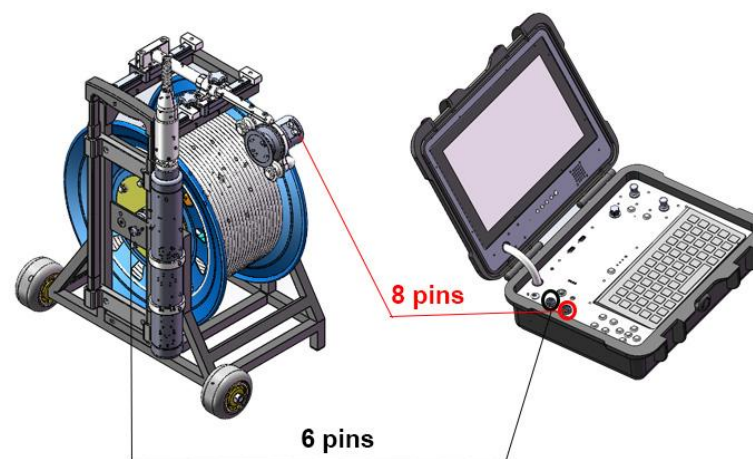


1. Inset USB adaptor to Keyboard USB port (No.11)
2. Switch Knob to "ON", The screen display cursor, then typewrite the character.
3. F8 :Display the character F9:Hidden the character
F10 :Clear the character
4. If the keyboard battery is low level, please change a new one.
Otherwise it can't typewrite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

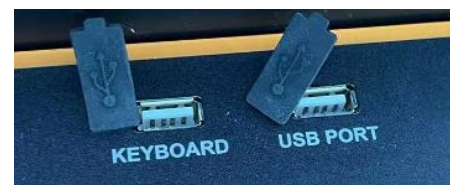
3. Take out the USB adaptor from the keyboard. Install the 7th battery.
Put the keyboard into the platform.



4. 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



7. Insert USB flash driver and Keyboard USB adaptor to the control box



8. Power on the control box.