FHD PAN TILT CAMERA INSPECTION SYSTEMS WITH DVR AND MANUAL FOCUS
ASSEMBLY AND OPERATING INSTRUCTION

Contents

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, it needs to change a new 7th battery.
4）Using original charger adaptor to charge battery or support unit work.

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

Specification

Monitor

Screen size	13 inch LCD IPS screen
Display Ratio	16:9
Resolution	1920x1080
Menu	Chinese English and others
Sunshade function	Yes

Audio power amplifier

Power Amplifier	Stereo Class-D Audio Power Amplifier
Power	3W*1

HD DVR

Support playback file format	video	H.264 encode，MP4 format
	Audio	audio and video synchronization
	Picture	JPEG
Audio input	Built-in Microphone	
Video input	HD ,AHD, CVBS	
Signal input	CAM	
Video system	HD PAL ,HD NTSC, AHD NTSC	
Video Input	Stereo aduio output (Internal Audio or	
Video Output	Composite video signal output	

Power support

External charge	DC12V 2000mA adaptor
Battery	11.1V　8800mA/H
Power	20W（Max）
Battery charge time	8hours
Battery work time	6 hours

Pan Tilt camera head with manual focus　（built in 512hz transmitter）

Camera Diameter	Dia.33mm x L225mm
View range	+/- 180°, rotation endless (slip ring)
Lighting	4pcs white LEDS
Camera Sensor	1/3 CMOS,2.0MP
Operating temperature	5°C ~ 50°C
Camera housing material	304# Stainless steel
Waterproof	IP68

Cable wheel

Special gold point touch connector to camera
Fiberglass rod push cable　Ø7mm
Cable length:　☐ 40 meters

Other function

Meter counter	Feet and Meter switch. Display on the screen
Keyboard	Support wired and wireless keyboard.

Know Your Device

Camera head
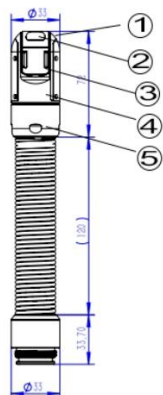
1. White LED lights (4 PCS)
2. Lens
3. Tilt rotation axis
4. Aluminum housing
5. Camera rear-end

Camera skids

It includes below items.

2pcs/set (Diameter 65mm and Diameter 105mm)

105mm   65mm

How to install camera skid

Step1: Loose the screws	**Step2:**Install skid to camera
Step3:find the screws gap	**Step4:**Screw it tightly

Control box panel

1 — CHARGE
2 — DC 12V IN
3 — CAM
4 — POWER
5 — COUNTER / AUDIO OUT
6 — MENU
7 — STOP / DEL
8 — ESC
9 — P / P
10 — VIDEO OUT
11 — KEYBOARD
12 — USB PORT
13 — LED DIMMER MIN. MAX.
14 — MF+ MF-
15 — FOCUS RESET
16 — PT CONTROL
17 — ROTATION RESET
18 — MIC REC DVR REM

OK / REC
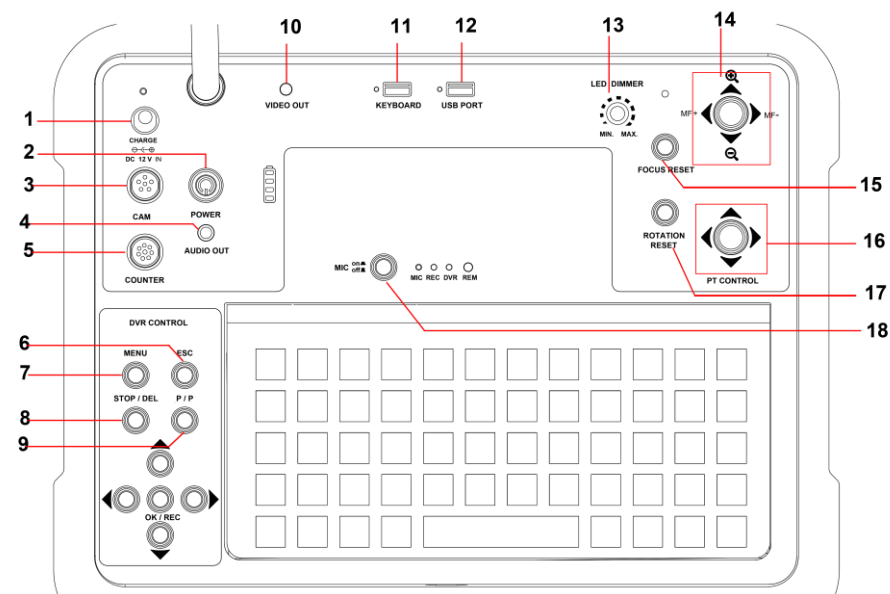
1) CHARGE: Insert charge adaptor,charge the battery.

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 avaiable for zoom camera**)

   Q :Zoom out   **Q** :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 auido.

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

Cable reel part
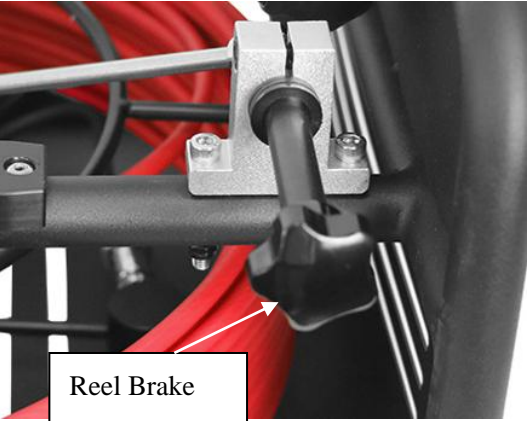
Reel Brake

Meter counter function
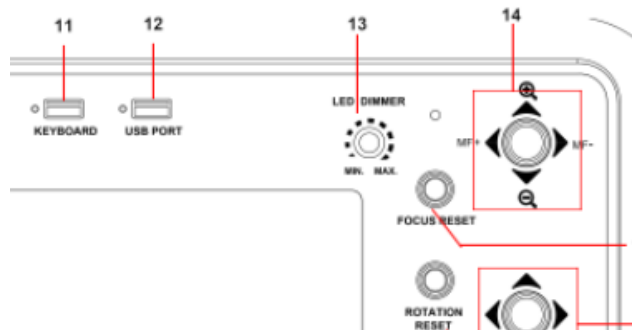

No.	Function	Details
1	RESET	Press this button ,the counter is zero
2	M/F	Switch Meters and Feet ; Default value is Meter

Charge the battery

1）Inset 12.5V/2A charge adaptor to charge port 1

2）Charge adaptor indicator light is red, the battery is charing

3）Charge adaptor indicator light is green, the battery is charged full
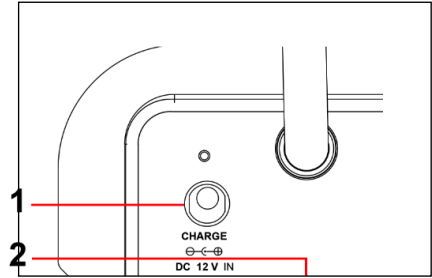
Wireless keyboard operation instruction

1. Inset USB adaptor to Keyboad 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.

Assemble the equipment

1.Take out all parts from the package.Count the items as the packing list.
2. Connect camera head to the cable reel.
3. Install the centralizer guide to camera head
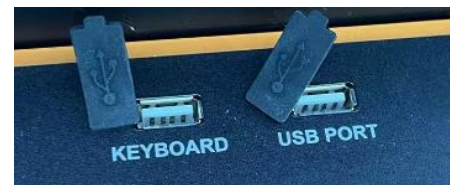4.Install the control box to the cable reel

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5. Connect 2 link cables from control box to cable reel.

6.Take out the wireless keyboard adaptor from keyboard

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

8. Power on the control box.

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Operating instruction

1.Insert the USB disk to USB port.

2.**Record the video:** press "OK/REC" button to start, and press "STOP"

button to stop recording.

3.**Record the auido:** Press down the MIC button. When it is recorded the

video, you can record the audio at the same time.

4.Take pictures: Press remote control "SNAP" button or control box

" P/P" to take picture (No matter whether it is recording or not)

5. Press MENU button to enter the main menu ,and choose "VIDEO" to

play the video.

6. Press MENU button to enter the main menu ,and choose "PICTURE" to

scan the pictures.

DVR menu instructions

Press menu button to enter the main menu
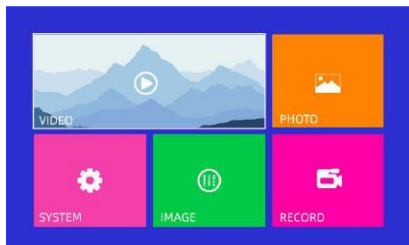
 1. Video: Playback the video file
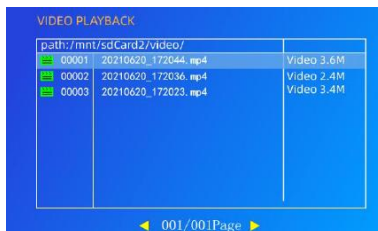
Press the "UP" and "DOWN" arrows to select files

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,
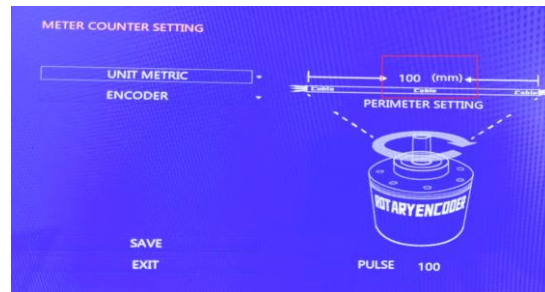
photo quality, record model,overwrite.

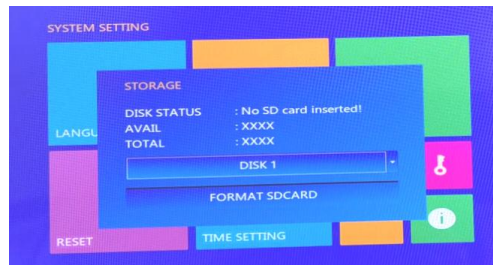**System Setting**

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

 The box has 9 languages.(English,Chinese,French, Espanol

 German,Polish,Korea,Russian and Italian.

2) **ENCODER**：Set the value to get the accurate meter counter

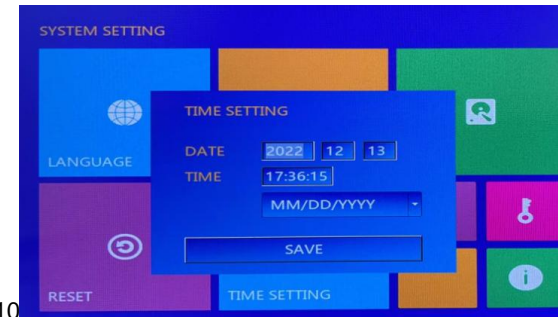**The PREMITER SETTING value is 582**

3) **DISK:** Format the USB flash driver.

The default value is "DISK1".

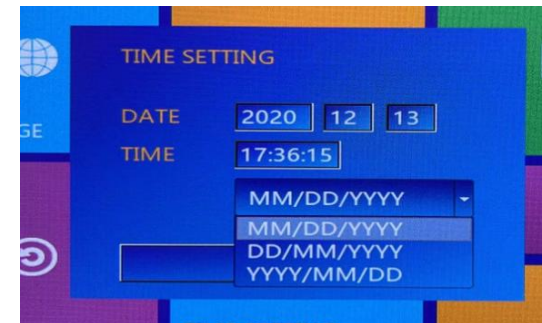4) **RESET**：Restore the factory default Settings
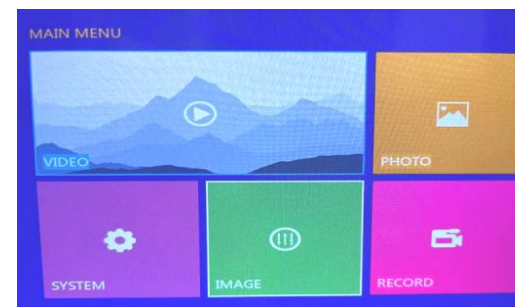
5) **TIME SETTING**：Setting the time,date

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Press UP/Down/Left/Right arrows to set the date and time.

Press"Save "to save the setting

For date format, it has 3 options
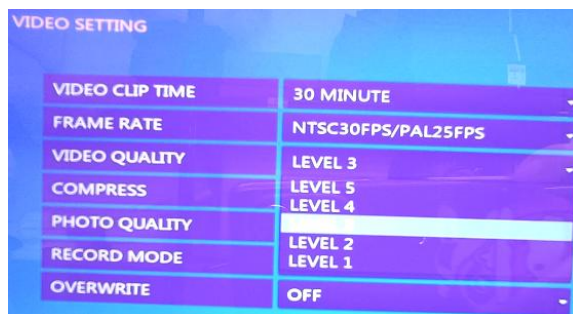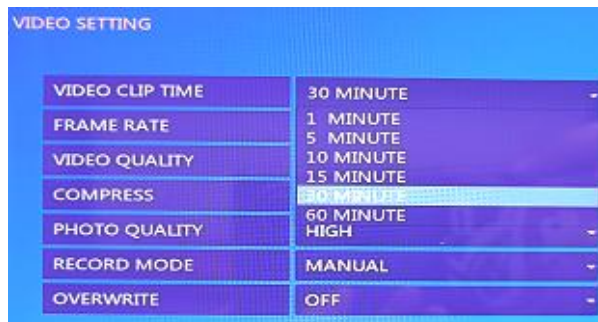
IMAGE SETTING

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Adjust the LCD screen brightess,Contrast
Default resolution:1280x720_60
Usually we suggest the customers don't change these value

RECORD Setting

Trouble shooting guide
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

Q：All parts are connected well ,but there is no image on the screen.

A:

Find 1m test cable, connect camera to control box directly, please check if the camera has image.

Q: I can't typewrite words

A: 1. Check the wireless keyboard battery is full or not.

2. Check the wireless keyboard receiver if it is inserted well .

If not , please restart the system after reinserting

3. Please press below keys on the keyboard

F8----Display the character

F9--- Hide the character

F10-- Clear all characters

Q:The control box can't read USB flash disk

A： Please use another USB flash disk to test. If the product still can't read this , please contact with us.

Q: The meter counter is not accurate

A: Please check if the counter value is correct or not.

Refer to Page 14.

Packing List

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