PAN TILT CAMERA INSPECTION SYSTEMS
WITH DVR CONTROL BOX
ASSEMBLY AND OPERATING INSTRUCTION

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

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.

Specification

Monitor

Screen size	13inch LCD IPS screen
Display Ratio	16:9
Resolution	1280x1080
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
	Picture	JPEG
Audio input	Built-in Microphone	
Video input	AHD analog high-definition signal(suport	
Signal input	6pin connector	
Video system	AHD PAL、AHD NTSC（Support CVBS	
Video Input	Stereo aduio output (Internal Audio or	
Video Output	Composite video signal output	

Power support

External charge	DC12V (Input voltage AC 100V~240V, Output voltage DC:12.5V，Current
Battery	11.1V 8800mA/H
Power	20W（Max）

Battery charge time	6hours
Battery work time	8~10 hours

Pan Tilt camera head with manual focus

Camera Diameter	Dia.50mm x L154mm
View range	+/- 180°, rotation endless (slip ring)
Lighting	6pcs white LEDS
Camera Sensor	1/3 CMOS,2.0MP 9601080P
Operating temperature	5°C ~ 50°C
Camera housing material	304#Stainless steel
Waterproof	IP68

Cable wheel

Special connector to camera	
Copper axis soft cable Ø8.0mm	
Cable length: ☐ 100 meters ☐ 150 meters ☐200 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 (6 PCS)
2. Lens
3. Tilt rotation axis
4. Aluminum housing
5. Camera rear-end
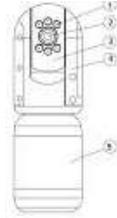
Camera Skid (Diameter 50mm to 350mm)

How to install the camera skid
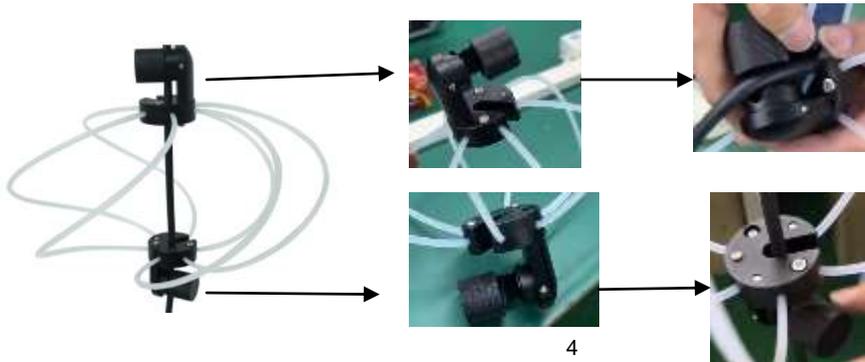
Control box panel
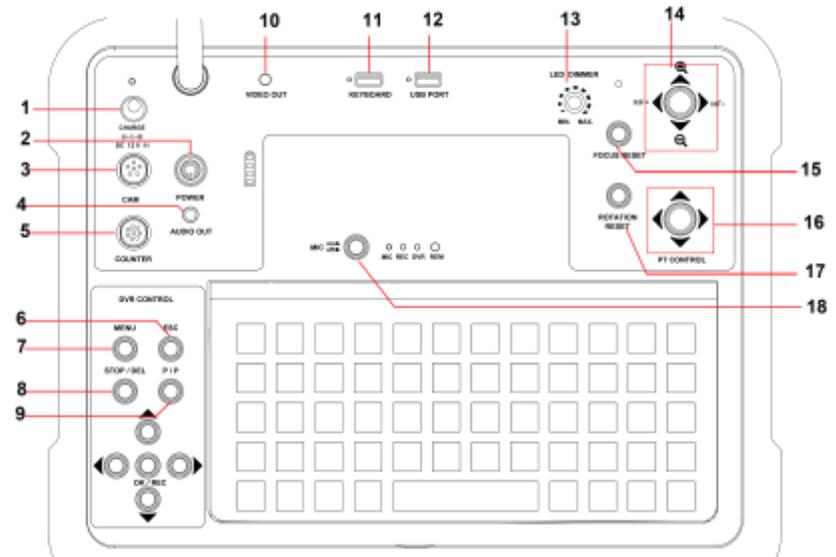
1) CHARGE: Insert charge adaptor,charge the battery.

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 avaiable 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 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

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
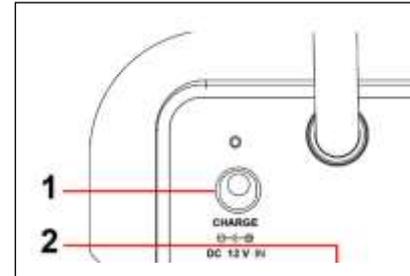
Wireless keyboard operation instruction
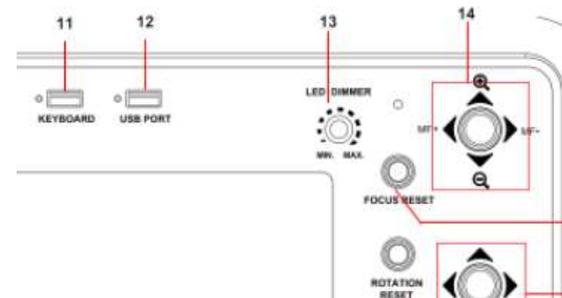
1. Inset USB adaptor to Keyboad USB port (No.11)

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.

Cable reel part

Handle
Extend Bar
Depth counter
Handle
Depth counter buttons
8pin connector
Cable connector
Camera head
Camera base
Manual cranking handle
5pin connector

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. (Pic1)

    (Pic1)   (Pic2)

3.Connect camera head to the cable reel.(Pic2)

4.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)

5.Install the centralizer guide to cable reel. (Reference Page 6)

6.Take out the wireless keyboard adaptor from keyboard

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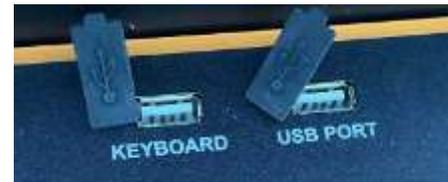

8. Power on the control box.

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:** Insert the external micrphone to MIC port. 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
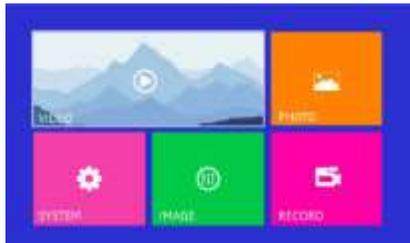
 1. Video: Playback the video file
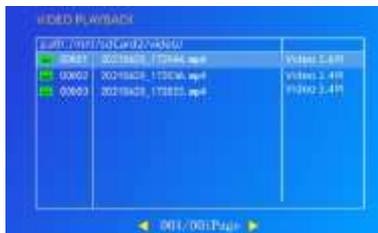
Press the "UP" and "DOWN" arrows to select files

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
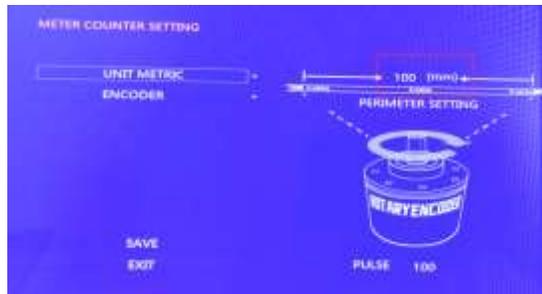
The **PREMITER SETTING** value is different for different cables.

For 7mm/9mm/11mm fiberglass cable,it is 100

For 8mm orange color soft cable, it is 157

For 6.5mm black color soft cable ,it is 152

3) **DISK:** Format the USB flash driver.
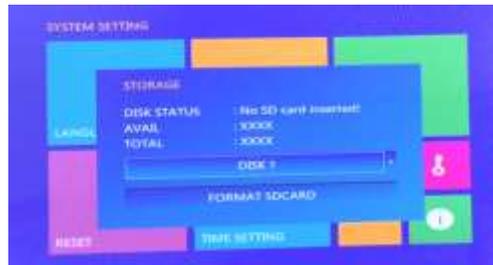
The default value is "DISK1".

4) **RESET**：Restore the factory default Settings

5) **TIME SETTING**：Setting the time,date
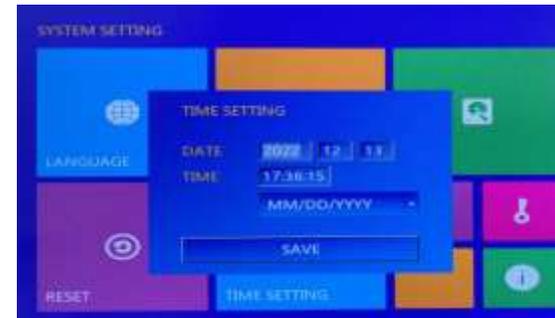
Press UP/Down/Left/Right arrows to set the date and time.

Press"Save "to save the setting
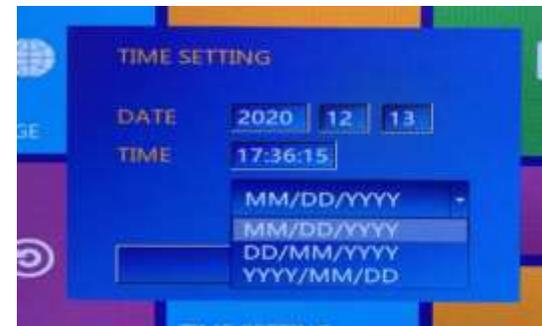

For date format, it has 3 options

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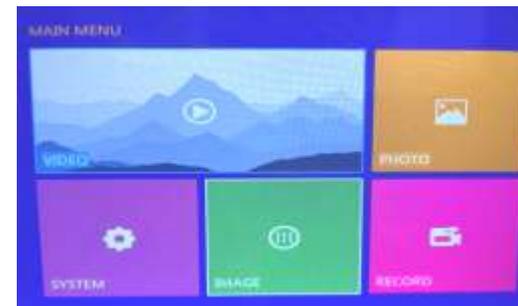
Adjust the LCD screen brightess,Contrast
Default resolution:1280x720_60
Usually we suggest the customers don't change these value

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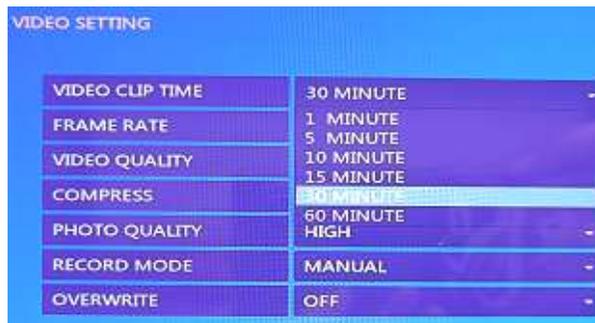
Video clip time:1 MINUTE / 5 MINUTE / 10 MINUTE
15 MINUTE / 30 MINUTE / 60 MINUTE
Default value: 30 MINUTE

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

Troubleshooting guide

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

A: Find 1m test cable (picture2),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.

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	Test cable	1pcs
8	32G USB disk	1pcs
9	Charge adaptor	1pcs
10	Waterproof ring	2pcs
11	Earphone	1pcs
12	User manual	1pcs
13	Tool bag	1pcs