

# Vividia PIPE INSPECTION CAMERA SYSTEM



Read these instructions completely before operating this system.

Please charge the battery first before use.



## MANUAL

# Catalog



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# Warning

 **Warning**  
To Avoid electrical shock put the item indoor when Charging



## Warning

Use only input 110~240V AC output DC 12.6V, 1000mA charger. This machine can only use the original charger and lithium battery, reminding the charging time is 5 hours. Please charge the battery before use!

 **Warning**  
Item contains battery, dispose according local legal requirements properly

 **Warning**  
Please check the appearance and functionality of the goods after receive it. Any damage or loss of goods, please take pictures and contact us within 3 work days, or else take the consequences by self.

Read this manual carefully before operating this system

Avoid using the device in extreme humidity or temperatures as this may cause damage to the device

Do not drop or press on the system as this may cause damage to the device

The warranty becomes void if any physical damage is present or if the system is disassembled by the user

Do not disconnect the SD card while recording or playing as this may damage the system and/or the SD card

Remember to always back up the data on your SD card

# Safety and Notice

## For your safety

1. Do not attempt to insert, use, or charge a battery not designed for this inspection system.
2. Use the power supply only on even surfaces, without any cover. Open air and circulation around the product must be available. The maximum ambient temperature is 50 °C.
3. Risk of explosion may occur if an incorrect battery type is inserted or used. Dispose of used batteries according to their instructions.
4. Keep the inspection system and its accessories out of the reach of babies, toddlers, and children. In particular, small parts such as memory cards and battery could be easily dismantled and swallowed.
5. Use only the original accessories to avoid possible risks to health and property, and thus meet all related legal regulations.
6. When using the LED lights, do not use too close to human or animal eyes (particularly for babies, toddlers, and children) to avoid injury.
7. In very rare occasions, Li-ion Batteries such as the one provided with this inspection system could explode if a conductive material such as jewelry, keys or beaded chains touch exposed terminals. The material may complete an electrical circuit and become quite hot. Exercise care in handling any batteries, particularly when placing it inside your pocket, purse, or other container with metal objects. In such an event, this could result in property damage, injury or burns. Do not dispose of batteries in fire as they may explode.

## Warranty

1. Warranty is void if damage or system failure occurred due to outside factors such as collision, fire, flood, dirt, sewage, earthquake, and other force majeure events as well as incorrect usage of electricity or use of non-original accessories.
2. It is the sole responsibility of the user if problems (such as data loss and system failure) occurred due to non-factory installed software, parts, and/or non-original accessories.

## Taking care of your inspection system

1. Always keep the inspection system in the pouch provided or other suitable cases for increased protection against splashes, dust, and collision.
2. The only way of replacing the battery and the memory card is to open the Battery / Memory cover. Use care when opening this cover to avoid damage the inspection system.
3. Dispose of unwanted batteries and inspection systems as permitted by the laws in your country.
4. Water may cause a fire or electric shock. Therefore, store your battery in a dry place.
5. If your control component becomes wet, wipe it with a dry cloth as soon as possible.

6. Do not drop, knock, or shake the inspection system. Inappropriate behavior when using the camera system may damage the internal electronic circuit board or deform the lens shape.
7. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the inspection system.
8. To avoid unclear images, be sure to clean the inspection system lens before taking pictures or recording videos. Use a lens brush or soft cloth to clean the lens.
9. To avoid the loss of video and photos on the memory card, you should make a backup copy to a computer or optical disc as soon as possible. Memory cards should not be considered as a long term storage device.
10. Before initial use of a memory card, it is recommended to use the inspection system to format the card first.
11. Remember to slide the write-protect tab (if available) to the unlock position. Otherwise, all data (if any) on the memory card is protected and the card cannot be edited or formatted.

## Operating environment

1. The camera system operating temperature is between -10°C ~ 50°C (14°F ~ 122°F). It is normal for the operating time to be shortened when the temperature is low.
2. The capacity of your inspection system battery will reduce each time it is charged/emptied.
3. Storage at too high or low temperatures will also result in a gradual capacity loss. As a result, the operating time of your inspection system may be considerably reduced.
4. It is normal for the camera system to become warm during operation, because the inspection system casing can conduct heat.

# 1.Parts list

## 1.1 Accessories

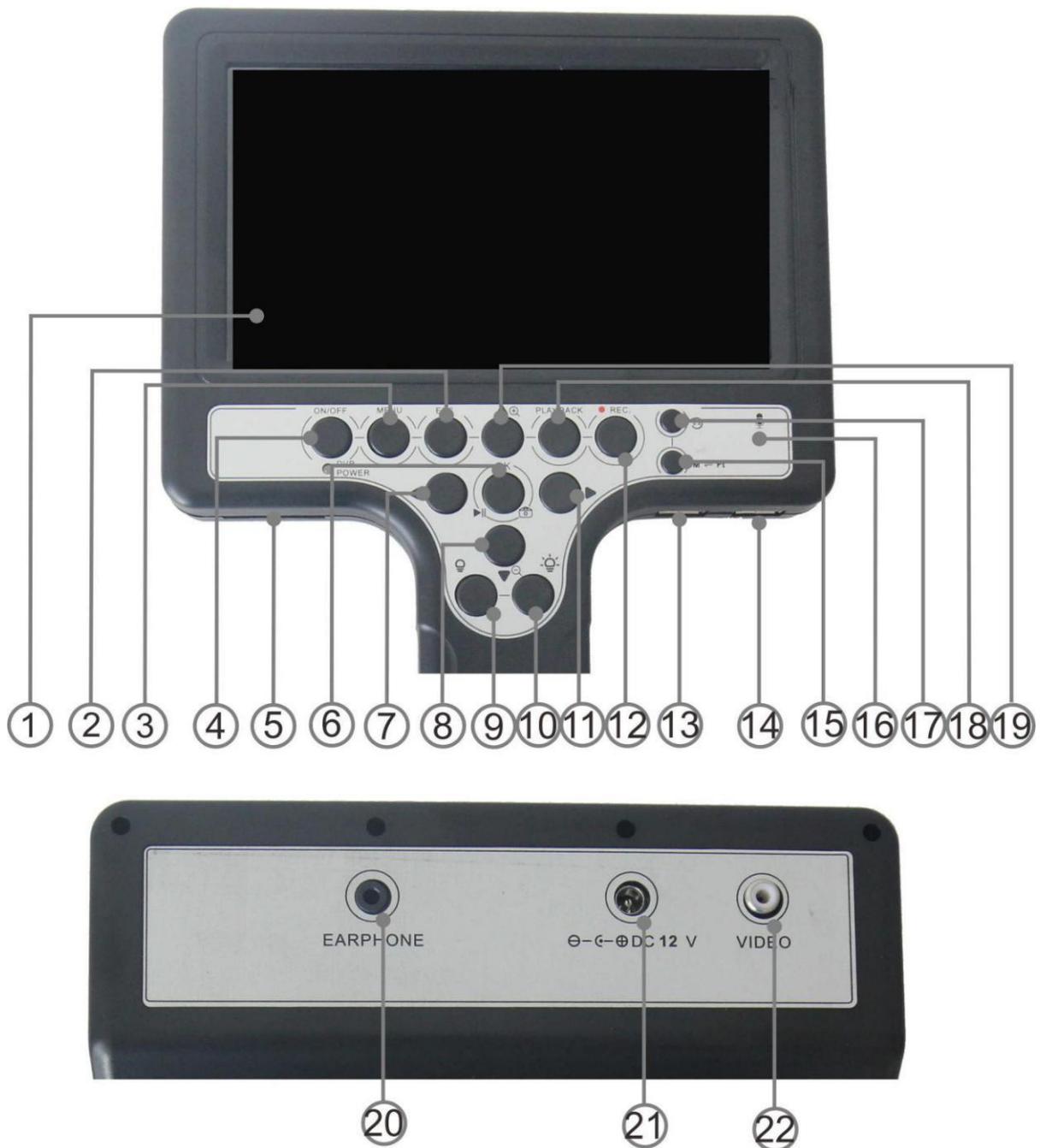
Item	Image	Description	Optional
Camera Head & Skids		<ul style="list-style-type: none"> <li>● ø7mm Camera Head</li> <li>● ø12mm skid</li> </ul> 	
		<ul style="list-style-type: none"> <li>● ø14mmX124mm Camera Head</li> <li>● ø30* 22.71mm skid</li> </ul> 	

	<ul style="list-style-type: none"> <li>● <math>\varnothing 14\text{mm} \times 124\text{mm}</math> Camera Head</li> <li>● 512Hz transmitter inside</li> <li>● <math>\varnothing 30^* 22.71\text{mm}</math> skid</li> </ul>	
	<ul style="list-style-type: none"> <li>● <math>\varnothing 17\text{mm} \times 115\text{mm}</math> Camera Head</li> <li>● <math>\varnothing 24\text{mm}</math> skid</li> </ul> 	
	<ul style="list-style-type: none"> <li>● <math>\varnothing 23\text{mm} \times 134\text{mm}</math> Camera Head</li> <li>● <math>\varnothing 40\text{mm}</math> skid &amp; <math>\varnothing 80\text{mm}</math> skid</li> </ul> 	
	<ul style="list-style-type: none"> <li>● <math>\varnothing 23\text{mm} \times 134\text{mm}</math> Camera Head</li> <li>● 512Hz transmitter inside</li> <li>● <math>\varnothing 40\text{mm}</math> skid &amp; <math>\varnothing 80\text{mm}</math> skid</li> </ul>	
	<ul style="list-style-type: none"> <li>● <math>\varnothing 23\text{mm} \times 240\text{mm}</math> Camera Head</li> <li>● 512Hz transmitter inside</li> <li>● <b>(self-level)</b></li> <li>● <math>\varnothing 40\text{mm}</math> skid &amp; <math>\varnothing 80\text{mm}</math> skid</li> </ul>	
	<ul style="list-style-type: none"> <li>● <math>\varnothing 23\text{mm} \times 156\text{mm}</math> Camera Head</li> <li>● <b>(self-level)</b></li> <li>● <math>\varnothing 40\text{mm}</math> skid &amp; <math>\varnothing 90\text{mm}</math> skid</li> </ul> 	
	<ul style="list-style-type: none"> <li>● <math>\varnothing 28\text{mm} \times 260\text{mm}</math> Camera Head</li> <li>● <math>\varnothing 40\text{mm}</math> skid &amp; <math>\varnothing 90\text{mm}</math> skid</li> <li>● 512Hz transmitter inside</li> <li>● <b>(self-level)</b></li> </ul>	

Item	Image	Description	Optional
<b>Controller</b>		<ul style="list-style-type: none"> <li>● Monitoring and recording</li> <li>● Storage media: 8G SD card and SD card (maximum 256G)</li> </ul>	√
<b>Cable Wheel</b>		<ul style="list-style-type: none"> <li>● Size: 430X330(W)X175(H)mm</li> <li>● Material: stainless steel</li> </ul>	
		<ul style="list-style-type: none"> <li>● Waterproof keyboard size: 300.8 * 115.8 * 12.25mm</li> </ul>	
		<ul style="list-style-type: none"> <li>● Dimensions: ø330mmX132 (h)</li> <li>● Wire material: glass fiber rod</li> <li>● Wheel material: stainless steel</li> <li>● Cable diameter: ø5MM (optional: ø7 red cord, connected to 7MM camera coil, connected to 14MM camera coil)</li> <li>● Lithium ion battery</li> <li>● Total power: 14W</li> <li>● 12V 4400MAH lithium ion battery (18650)</li> </ul>	√
<b>Charger</b>		<ul style="list-style-type: none"> <li>● Input: AC100-240V~50/60Hz</li> <li>● Output: DC 12V/1000MA</li> <li>● DC plug diameter: 2.1mm</li> </ul>	√
<b>Suitcase</b>		<ul style="list-style-type: none"> <li>● 440(L)X395X165(H)mm</li> <li>● Fire board</li> </ul>	
		<ul style="list-style-type: none"> <li>● 511(L)X430X200(H)mm</li> <li>● Engineering Plastics</li> </ul>	

<b>SD card and card reader</b>			√
<b>Screw Driver</b>			√
<b>Waterproof Ring</b>			√
<b>Manual</b>			√

## 1.2 Control Box



1	7 inch screen	12	Record/End Record
2	return	13	USB keyboard
3	table of Contents	14	U disk socket
4	Switch machine	15	Metric / Imperial
5	SD card slot	16	microphone
6	Confirm button/Photo button/Long press	17	Reset

	to enter the photo catalog		
7	left	18	Recording directory
8	Down/ZOOM-	19	Up/ZOOM+
9	Dimming	20	Headphone jack
10	Brightness becomes brighter	21	Charging jack
11	To the right	22	Video output

## note:

- Please insert the USB flash drive before booting. If you cannot read it, restart the system.

## 2.Quick Start Guide

### 2.1 Charging 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 indicator of charger will turn into red. When the Li-ion battery is full of power, the indicator of charger will turn into green.

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### 2.2 Starting up

1. Assemble the awning
2. Open the brake
3. Put the fiberglass on the wire hook

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- 4. The camera is connected to the coil
- 5. Press and hold the power button for three seconds.
- 6. Adjust the brightness of the LED.

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## 2.3 Checking waterproof ring & Assembling SKID

2.3.0 Check waterproof rubber ring on the bottom of camera head

2.3.1 40mm SKID and 23mm camera head

- 1. Set the SKID in the camera head
- 2. Fasten the SKID with a screwdriver by tightening its screws.
- 3. The SKID assemble completed

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### 2.3.2 80mm SKID and 23mm camera head

1. Set the SKID in the camera head
2. Fasten the SKID with a screw rod by tightening its screws.
3. The SKID assemble completed

①



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### 2.3.3 14mm SKID and 7mm camera head

1. Set the SKID in the camera head
2. Fasten the SKID with a screw rod by tightening its screws.
3. The SKID assemble completed

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③



### 2.3.4 40mm SKID and 28mm camera head

1. Set the SKID in the camera head
2. Fasten the SKID with a screw rod by tightening its screws.
3. The SKID assemble completed

①



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### 2.3.5 90mm SKID and 28mm camera head

1. Set the SKID in the camera head
2. Fasten the SKID with a screw rod by tightening its screws.
3. The SKID assemble completed

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## 3. Recording and Menu

### 3.1 Inserting SD Card

Insert the SD card to the slot, then press it slightly. Make sure the SD card connecting finger contact nicely, then press it slightly and pull out the SD card

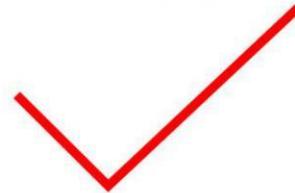
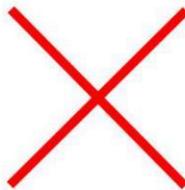
①



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### 3.2 Record video

1. Insert the SD card.

2. Press the "REC" button to record video.

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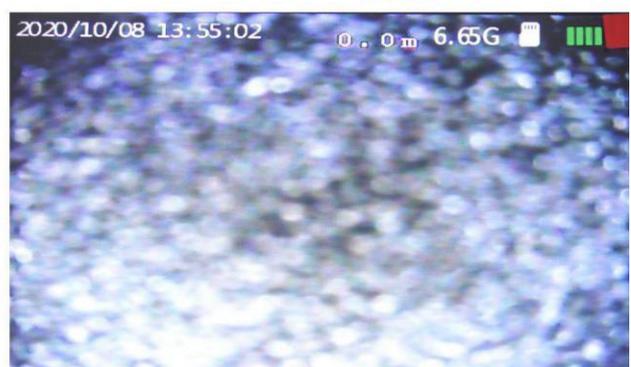
3.To record video, you can press "OK" button to take a picture

4.Press the "ZOOM +" key ZOOM +



5.Press the "ZOOM-" button ZOOM-

6.Press the "REC" button again to end the recording.



### 3.3 Recording photo

Press the "OK" button to snap picture.



### 3.4 Playback Video

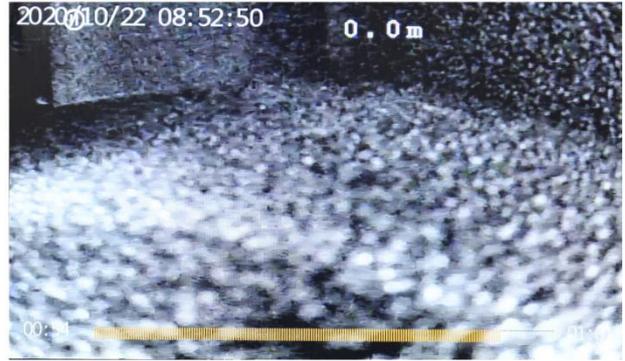
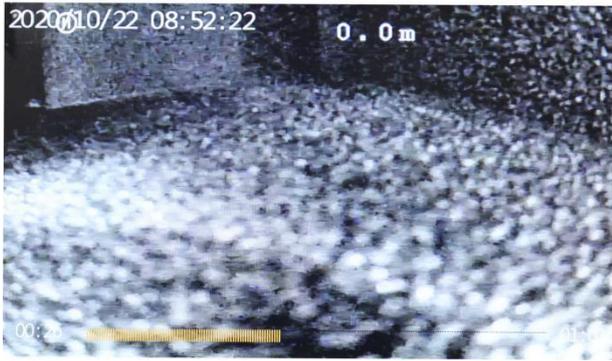
1. Press the "  " button to enter the video directory.

2. Press the "  " button to enter the video.



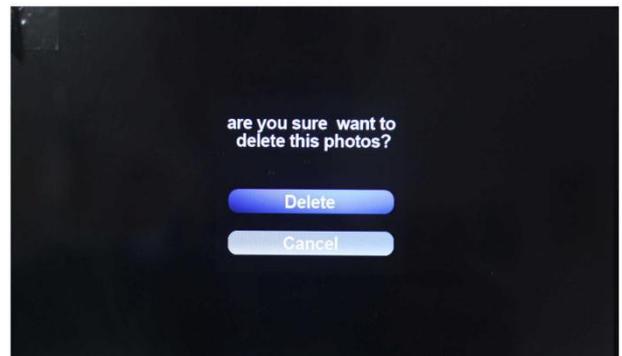
3. Press "  " to pause the video playback.

4. Press the left and right buttons to fast forward and rewind the video playback.



5. Back to the video catalog

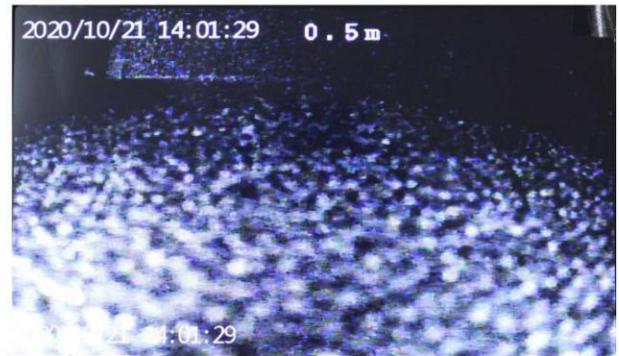
6. Press "  " to delete the video.



### 3.5 Play photos

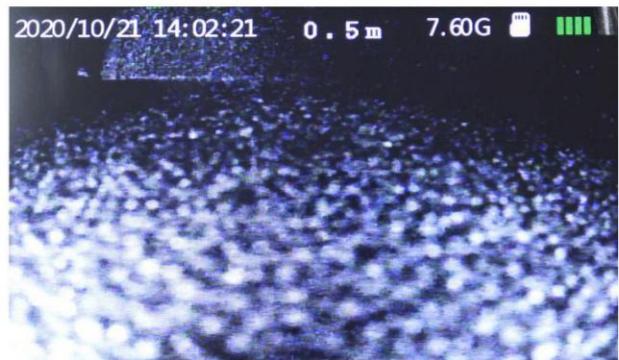
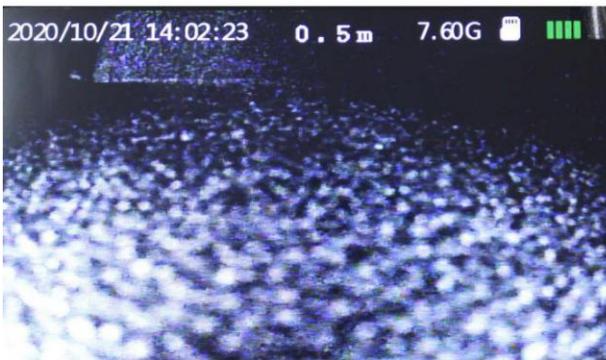
1. Long press the "  " key for three seconds to enter the photo library.

2. Press "  " to view the photo.



3. Press the "" key to go to the previous picture.

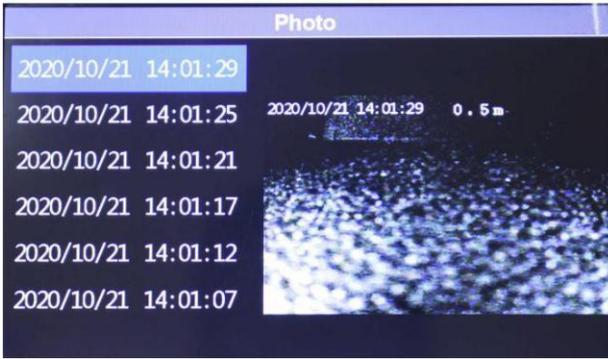
4. Press the "" key for the next picture.



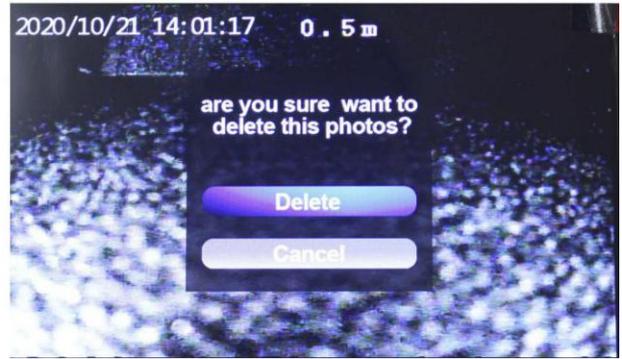
5. Return to the main photo catalog

6. Press the "" key to delete the video.

5



6

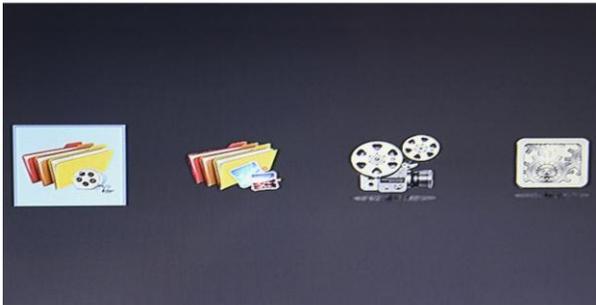


### 3.6 Menu

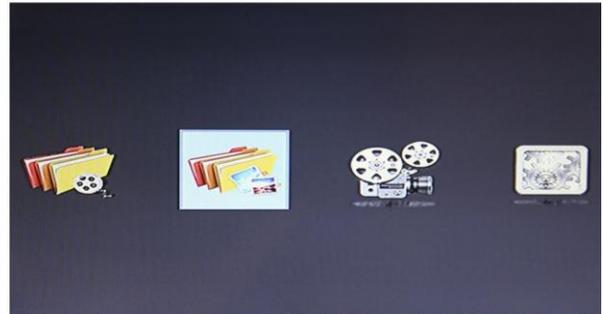


Press the "MENU" key to enter the main menu.

## VIDEO



## PHOTO



## VIDEO SETTINGS



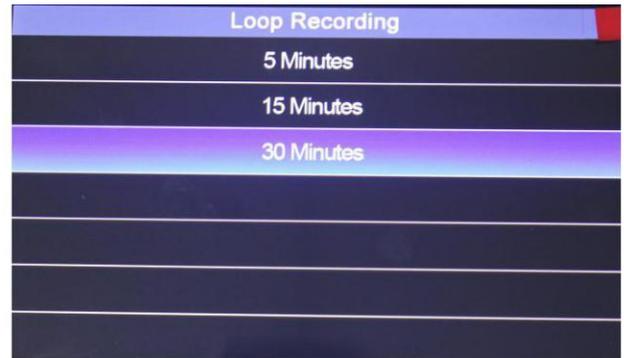
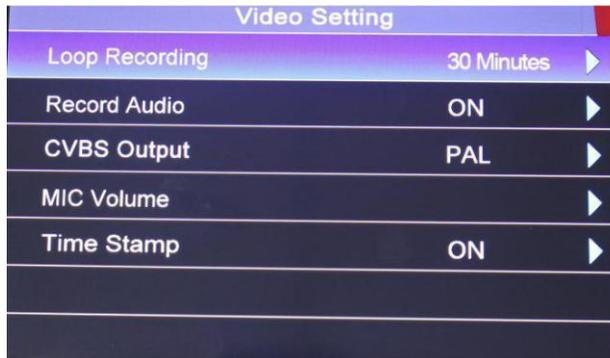
## SETTOMGS



# 4.Video settings

## 4.1. Set the length of time to record video

- 5 minutes
- 15 minutes
- 30minutes



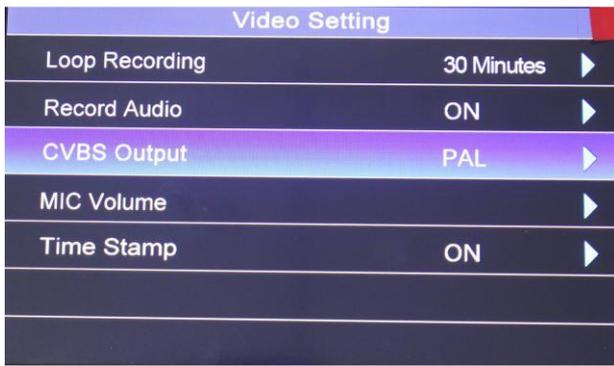
## 4.2. Record Audio

- Off
- ON



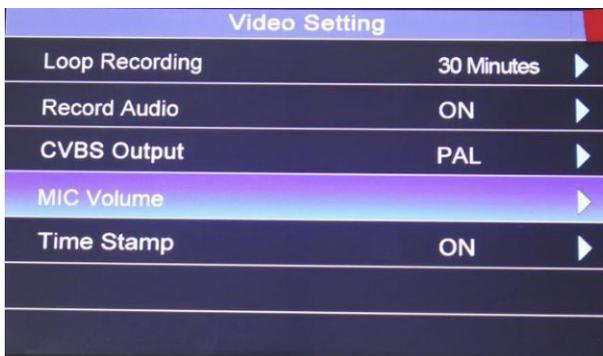
## 4.3. CVBS output

- NTSC
- PAL



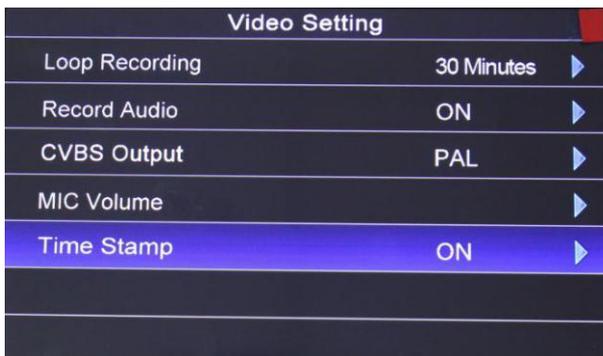
#### 4.4. MIC Volume

- First press the “OK” button, press the left and right buttons to adjust the volume



#### 4.4 Time stamp

- Open
- Off

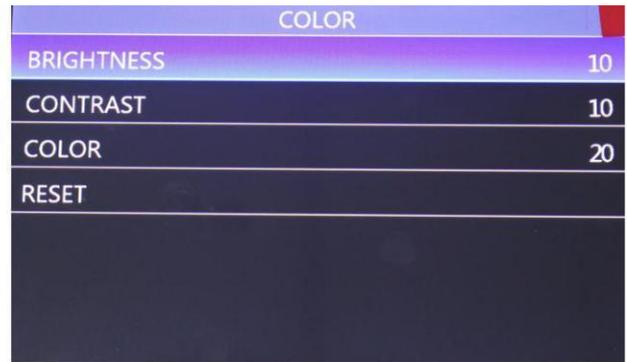
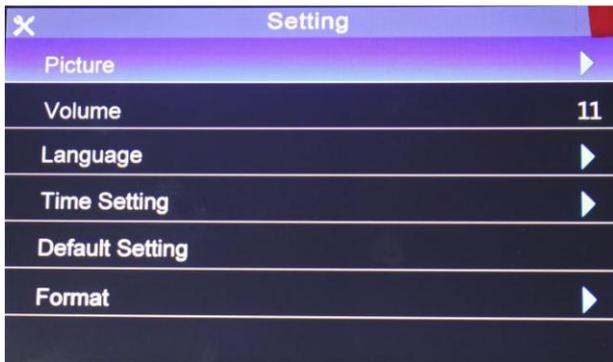


## 5. System settings

### 5.1. Picture

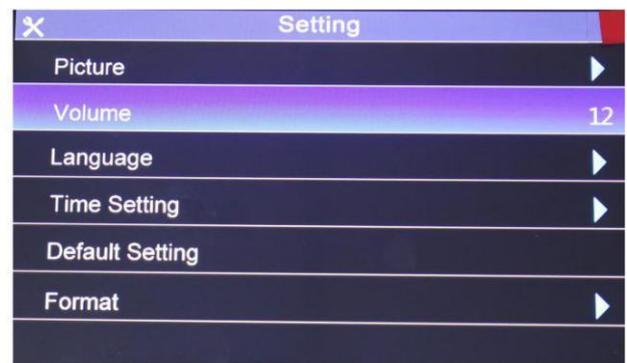
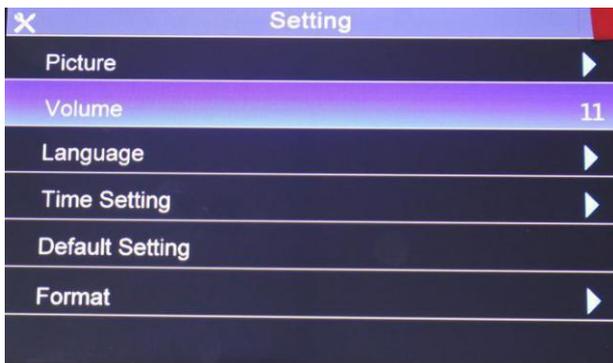
- Brightness
- Contrast
- Color

- Reset



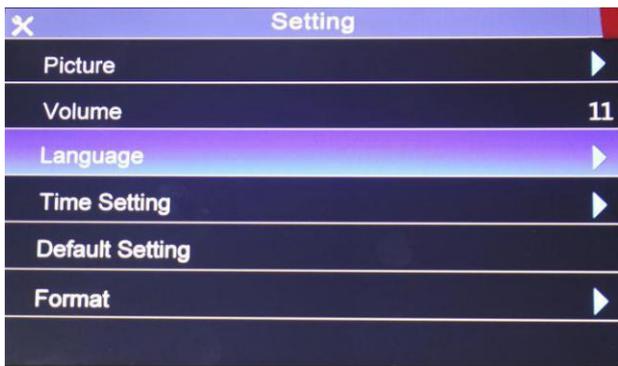
## 5.2. Volume

- Press the left and right keys to adjust the volume



## 5.3. Language settings

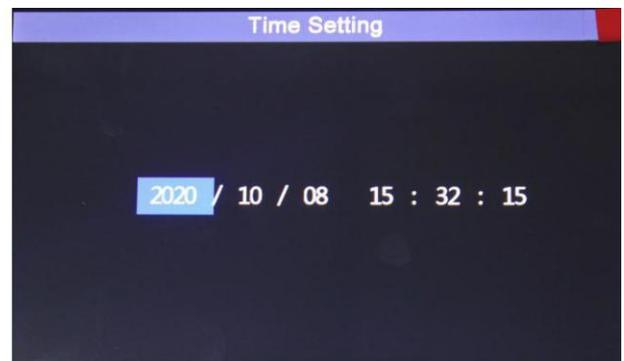
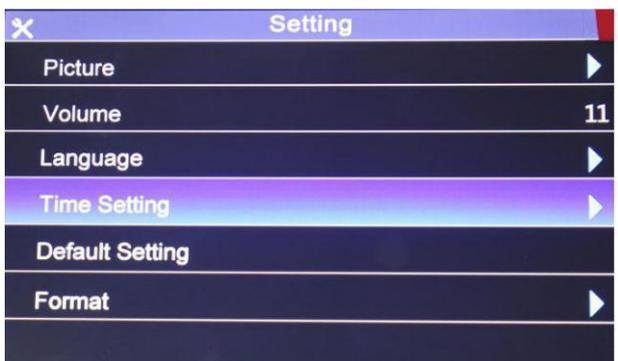
- Chinese
- English
- Spanish
- French
- Italian



#### 5.4. Time setting

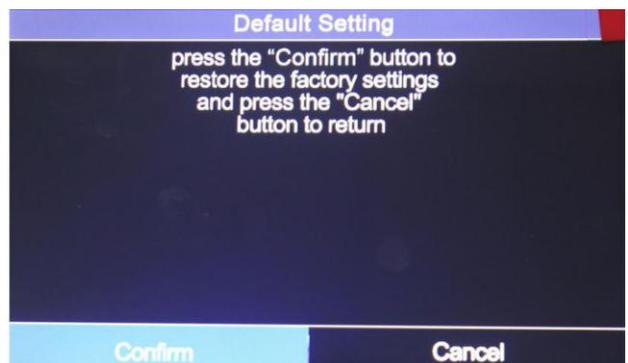
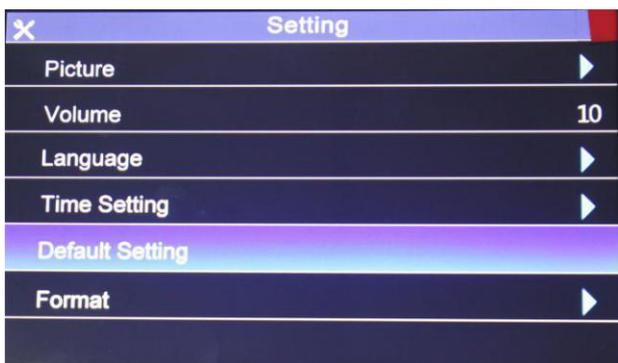
##### Date and time

- Key to set date and time, left and right keys to adjust time and date



#### 5.5 Default setting

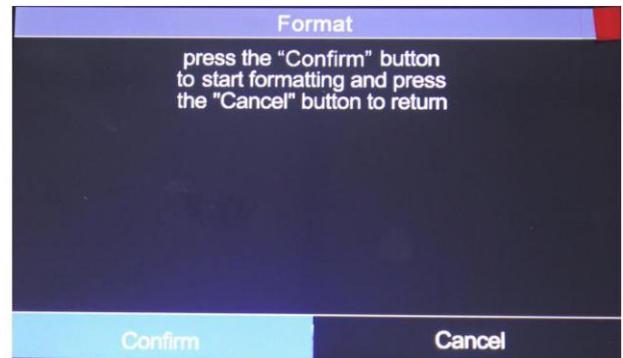
- No: Cancel
- Yes: Confirm



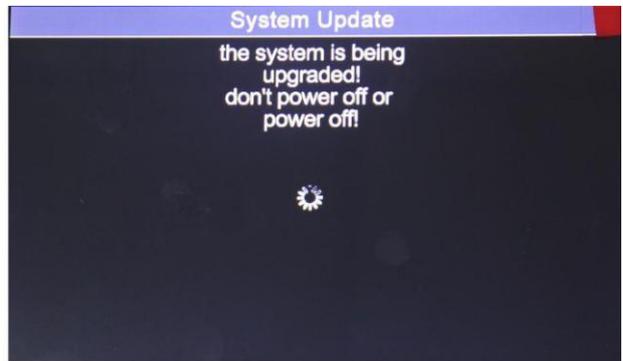
#### 5.6. Format

- No: The system does not format the SD card

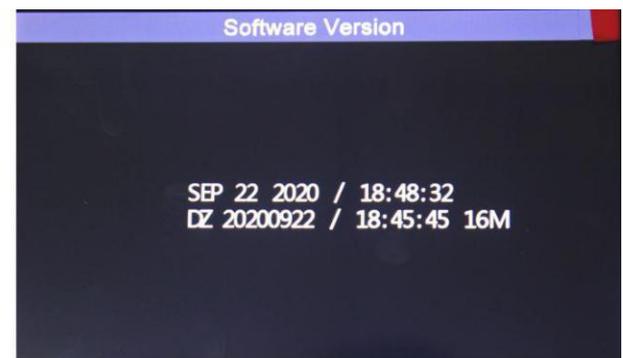
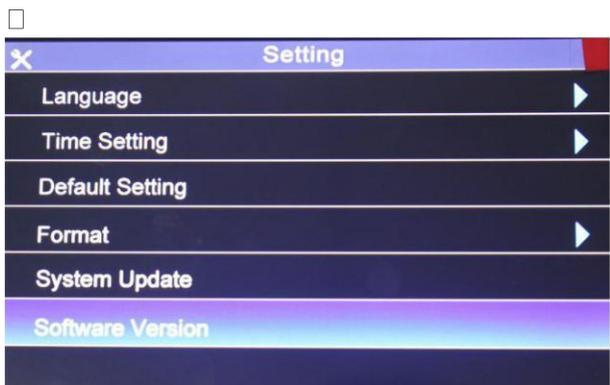
- Yes: The system can format the SD card (Note: Please back up the data in the SD card before operation)



### 5.7. System Update



### 5.8. Software Version



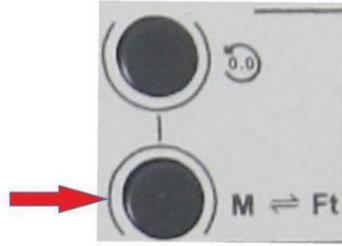
## 6. Meter Counter

1. Press the "" button to alternate metric and imperial unit

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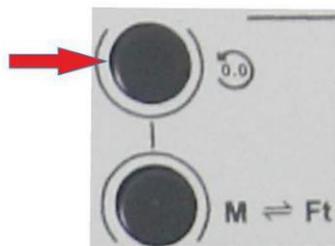


2. Press the “” button to reset the value of cable length

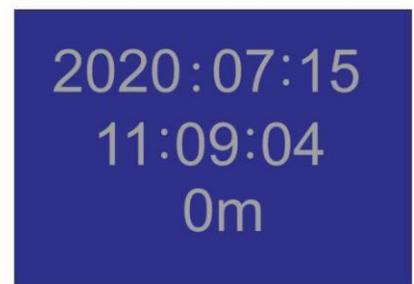
①



②

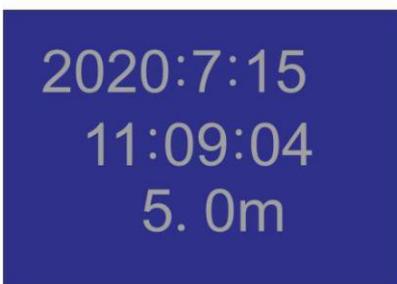


③

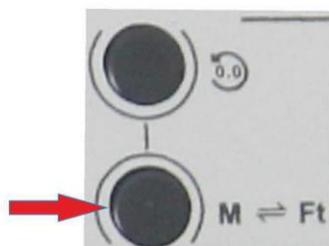


3. Hold the “” button for 3 seconds, the meter count number hide; hold the button again for 3 seconds, the meter count number show.

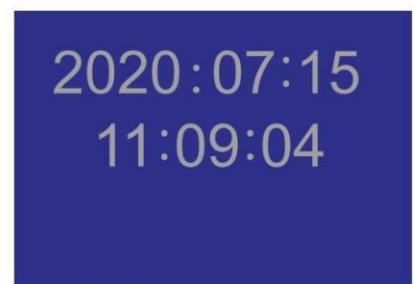
①



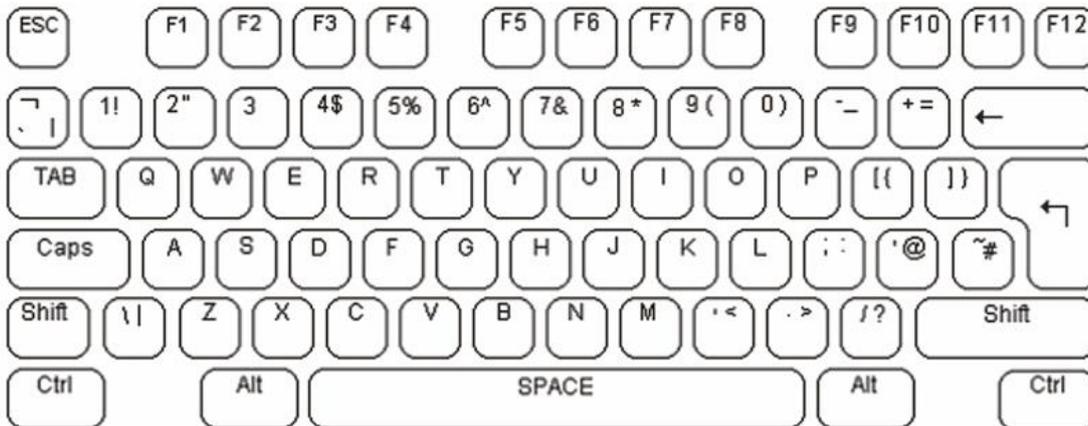
②



③



## 7.Keyboard (Matching)



The font and text size are fixed and cannot be changed.

The basic operation of the text overlay unit is straight forward. A flashing underscore cursor indicates the current screen position. This cursor can be moved the screen by the keyboard cursor keys. The cursor will wrap around the screen left and right, top and bottom. If no key is pressed then the cursor will disappear after approximately ten seconds. The video text overlay unit uses the standard US keyboard mapping.

Standard US keyboard mapping used by the video text overlay unit. By default all US units are supplied with this.

The alphanumeric characters in the QWERTY section of the keyboard and the keys of the numeric keypad can be typed directly to the screen as would normally be expected. Each alphabetic character key is normally lowercase. Uppercase characters can be typed by holding down the shift key or pressing the CAPS LOCK key. The keyboard's LED indicators will be lit by the unit. To exit CAPS LOCK mode press the key again.

To remove a character from the screen use the backspace key and delete key. This will replace the character immediately to the left of the current cursor position with a blank space and move the cursor to that position. The Delete key has no function. The Home and End keys move the cursor position to the left and right of the current line on the screen. The Return key moves the cursor to the beginning of the next line.

The video text overlay unit operates in two modes. In the first mode the text is overlaid over the video input signal. When the video signal is removed the unit automatically switches to generating its own internal dark grey background video signal and will switch back to the external video when this is reconnected. In the second mode the unit generates its own video signal internally, but ignores the external video signal. All keyboard commands operate in the same way in both modes. To switch between modes use the F3 key as shown in the command table below. Each page can have this mode set independently.

Esc	Clear the cursor current settings
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	back to the first line and the first position
F1	the cursor from any page back to the first line and the first position
F2	Select text over internal video
F3	Select text over external video signal
F4	Shift display up
F5	Shift display down
F6	Shift display left
F7	Shift display right
F8	Reset display X-Y position (defaults)
F9	Clear the screen

The video text overlay unit divides its display between four on screen pages. Text written to each of these pages will be stored in the unit's non-volatile memory until overwritten. There is no default on screen indication of which page is currently selected. To move between the screen pages use the page up and page down keys or Page up moves toward page 1. Page down moves toward page 4. To clear the screen page of text press F9.

## 8. Troubleshooting Guide

### Common faults and maintenance

- Ability to enter, but no image
- The camera is installed or the camera is damaged
- Press the F2 key, the image has been switched to no image type mode, press F3 to return to the typing mode
- Abnormal PCB board of control box
  
- Wrong time display
- The DVR board of the control box is abnormal
  
- No image
- The control box DVR is abnormal
- Whether the camera is tightened

- The air jack of the control box connected to the monitor is loose
- The display is faulty
- The control box DVR is faulty
  
- The battery cannot be charged
- The charger is not inserted correctly or the AC plug is faulty
- Do not use non-original chargers
- The charger is faulty
- The lithium ion battery is damaged
- The battery runs out quickly
- Low battery capacity
  
- SD card does not work
- The SD card is not inserted correctly
- The SD card write protection switch is turned on
- SD card is full, please replace the SD card or transfer files to free up space
- DVR SD card slot is damaged
  
- Open, but not showing
- Battery disconnected
- The control box DVR is faulty
  
- Normal display, the camera indicator is off
- The camera is not installed correctly
- The camera is faulty
- The cable wheel is faulty
- The PCB board of the control box is faulty
  
- The monitor cannot display
- The monitor is not turned on
- The monitor is disconnected
- The display is faulty

- The control box is faulty

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