

PIPE & WALL VIDEO INSPECTION SYSTEMS USER MANUAL

For

3288/3388 SERIES

ASSEMBLING AND OPERATING INSTRUCTIONS

(3288)



(3388)



Read instructions carefully before operating this system

WARNING

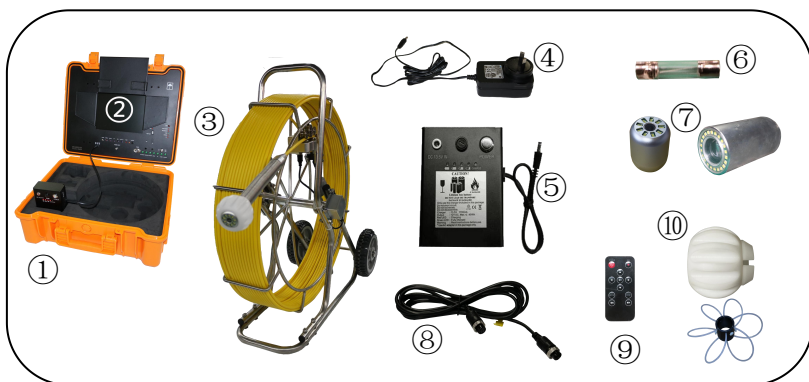
- 1.Never use this device in an environment with explosive materials such as GAS, OIL, ETC.
- 2.Avoid using the device in extremely cold, hot or humid environment; otherwise it may damage the device. Do not drop or press hard on the device.
- 3.Avoid using the parts / components from other manufacturers to this system, which may damage the equipment due to the un-compatibility.
- 4.Warranty invalidation if the device is disassembled by users or if there are any physical damages.
- 5.Always back up your data before connecting your USB stick / Micro SD Card to this system. The manufacturer is not responsible for any data damage or loss on your USB stick / Micro SD Card for any reason.
- 6.Do not disconnect the unit while recording or playing. It may damage the unit and/or the USB stick / Micro SD Card.
- 7.Don't misuse the Battery Charger Cable and Power Cord, otherwise the battery pack may be damaged or the system can not work properly.
- 8.The system's PUSH CABLE made of fiberglass is very rigid and not flexible. It CAN NOT be bent sharply or pushed too hard; otherwise it will be broken.
- 9.If you have an extra portable cable reel, and try to put it in the case after use, you must put it in the right position; otherwise, LCD monitor may be broken by the part on the reel when you close the case.

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Assembly Drawing and Parts List

Part No.	Description
1	<input type="checkbox"/> BLACK COLOR <input type="checkbox"/> YELLOW COLOR SAFETY PROTECTION BOX
2	<input type="checkbox"/> 7 INCH MONITOR <input type="checkbox"/> 10 INCH MONITOR
3	<input type="checkbox"/> 60M(200FT) <input type="checkbox"/> 90M(300FT) <input type="checkbox"/> 120M(400FT) CABLE
4	POWER ADAPTER &BATTERY CHARGER
5	BATTERY CASE
6	FUSE BAG
7	<input type="checkbox"/> 50MM CAMERA <input type="checkbox"/> 40MM CAMERA
8	3M OR 5M VIDEO CABLE
9	REMOTE CONTROL
10	SKID FOR 40MM CAMERA SKID FOR 50MM CAMERA



Specifications

Item	Description
Power adapter	110VAC~240VAC 13.5VDC 1700mA
Battery Case	LI-ION battery, 4400mAh (6600mAh optional)
Length of Cable	<input type="checkbox"/> 60M(200FT) <input type="checkbox"/> 90M(300FT) <input type="checkbox"/> 120M(400 FT)
Camera Light Source	Built-in White LED lights (18PCS)
Camera Angle-of-View	90°(Horizontal), 90°(Vertical)
Camera Depth-of-View	400 mm (approximate)
Camera Image	Color, 680*480 pixel
Monitor SCREEN SIZE	7"OR10" TFT LCD Color Monitor
Monitor Picture Resolution	800 * 600 pixel (for 10"LCD)
Monitor Input Voltage	12 Volts DC
System Operating Temperature	-28°C to 50°C

User Manual

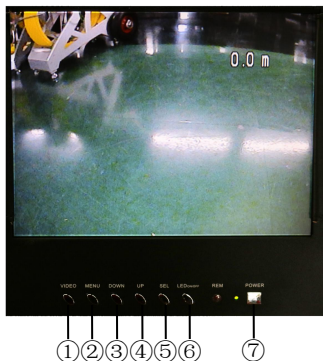
Application

1. WATER SUPPLY
2. WASTE WATER
3. ELECTRICAL AIR CONDITIONER
4. CABLE DUCTING
5. DUCTED VACCUM SYSTEMS
6. PLUMBING
7. BUILDINGS

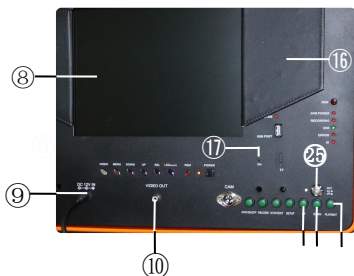
WARNING:

NEVER USE THIS DEVICE IN AN ENVIRONMENT WITH EXPLOSIVE MATERIALS SUCH AS GAS, OIL, ETC.

Know Your Device



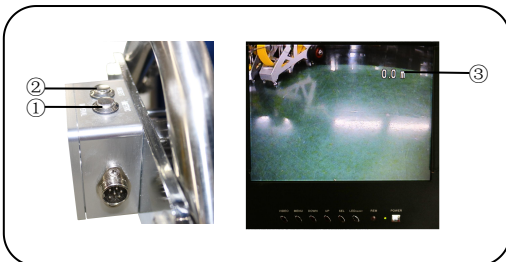
10"LCD



- | | |
|--------------------------|---------------------------|
| 1. VIDEO SELECTOR BUTTON | 13. POWER & CHARGE BUTTON |
| 2. MENU | 14. CHARGE PORT |
| 3. DOWN SELECTOR | 15. DC 12V OUTPUT CORD |
| 4. UP SELECTOR | 16. SUNSHADE |
| 5. MENU UP/DOWN SELECTOR | 17. MIC |
| 6. LED ON/OFF | 18. DVR ON/OFF |
| 7. POWER BUTTON | 19. RECORD |
| 8. FLAT SCREEN | 20. STOP/EXIT |
| 9. DC 12V IN | 21. SETUP |
| 10. VIDEO OUT | 22. UP |
| 11. CAMERA PORT | 23. DOWN |
| 12. USB/MICRO SD PORT | 24. PLAY/ENT |
| | 25. MIC ON/OFF |

Meter Counter (For 3388M, 3288 series)

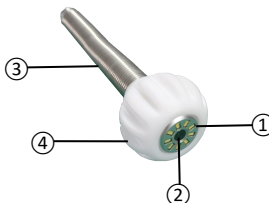
1. Metric & Imperial Conversion
2. Reset
3. Display of Metric or Imperial



Setting the Cable: Put the cable through the notch of counter and then set the cable in the notch by rotating the copper knob on both ends.

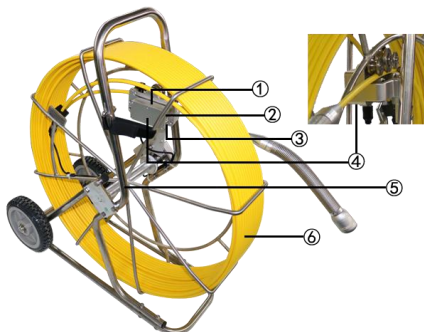
Camera Head

1. White LEDS
 2. Lens
 3. Spring
 4. Skid
 5. Built-in Transmitter: 512HZ (Options)
- 0

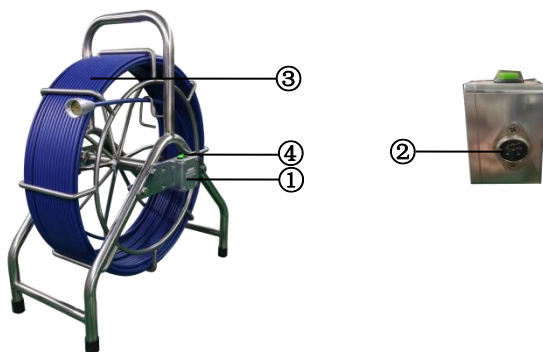


Cable reel

1. Meter Counter Box
2. Reset Button
3. Meter& imperial Button
4. Female Plug
5. Bracket
6. Cable Whee



Cable reel



1. Meter Counter Box
2. 6-pin Plug
3. Cable Wheel
4. Meter & Imperial Button

Remote Control (For Operating DVR and SD Card Recording)

- 1) Enter: Enter to view and play video
- 2) Up: Go to up/previous item
- 3) REC: Start recording/ Snap Shooting (only available for new version)
- 4) Setup: System setup and recording features
- 5) Enter: System in
- 6) Down: Select down/next item
- 7) Exit: Stop or escape from current menu
- 8) Left: Select Left item
- 9) Right: Select Right item
- 10) Rewind: Review video
- 11) Forward: forward video



System Set-Up

1. **IMPORTANT:** When you connect the Camera to the Monitor, the power must be off; otherwise both units will be damaged.
2. Connect the reel cable to the Monitor (See Figure 1-A) .
3. Plug the Power Adapter cord into the wall AC socket and the other end into the DC 13.5V-Input Jack,.

Note : Don't misuse the Power Cord & Battery Charger Cable, otherwise the system can not work properly, or the battery pack may be damaged. .

4. Press the POWER button on the front of the Monitor.
5. Gently lower the Camera into a pipe duct, etc and reel out the Cable until it is at the desired depth.
6. Record the pictures if you need (see DVR Operating).
7. Video Out: By using a video cable you can transfer the picture to other larger Screen.
8. When you finish the job, carefully remove the Camera head from the pipe duct, etc, clean it with a clean, soft and dry cloth and then put the Camera into the previous position

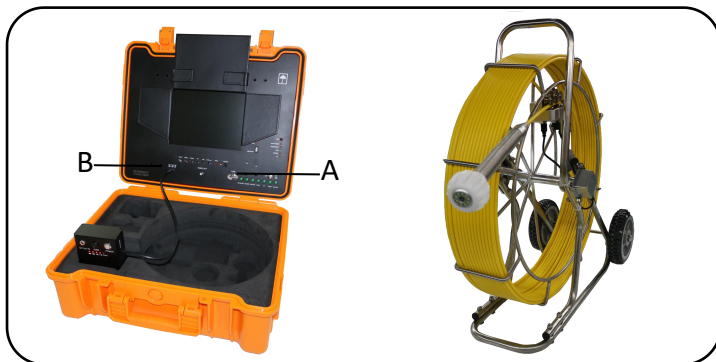


Figure 1

System Menu Setting

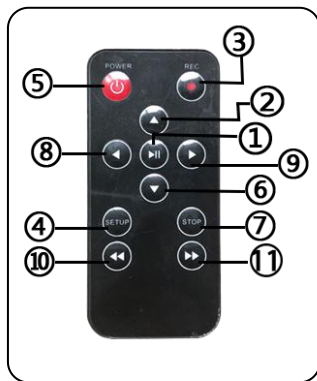
Clock setting: set date and time	
*Time Format	Select: 24Hour - 12Hour
Year	Set year
Month	Set month
Day	Set day
Hour	Set hour
Minute	Set minutes
Second	Set seconds
Language Setting	Select: English - Chinese
System: showing software version, product version, free space and used space (when USB/ Micro SD Card is connected)	
Record setup: Storage Device Selection ---USB Device or Micro SD card	
Play Mode: No circle, One circle, List circle	
Master reset: press OK again to perform a master reset	
Firmware update: locate the directory where new firmware is stored	
Browse File: Showing all files on the current USB/ Micro SD Card medium.	
Remove USB/Micro SD Card device (only when USB/Micro SD Card device is connected)	
Always use this option before safely removing the USB /Micro SD Card device from the USB/Micro SD Card port	

Remark: When you plug in the USB key/Micro SD card before starting the device, maybe the device can't find the USB stick/Micro SD card. In this case, please remove them and try again.

DVR/Micro SD RECORDING OPERATION

(Recording via MICRO SD Card is only available for the new versions)

1. Set the Screen Video Button on Video 2.
2. Take off the isolation sheet from the Remote Control Battery.
3. Press the Remote Control Button 5 (⏻) to enter the Recording system, you can see DVR system Recorder **PLAY VIDEO** manual on the screen.
4. Insert your USB stick/ removable hard disc etc into the **USB** Port, or Micro SD Card into Micro SD Card Slot, you can see **USB stick/ Micro SD Card Connected** on the screen and the LED light indicator is on.
5. Press Remote Control Button 3 (●) to start the recording and the RECORDING LED light is on. In recording, if you press the RECORDING button again, the DVR will take a photo and it is saved in the USB key or Micro SD card (only available for new versions).
6. Press Remote Control Button 7 (STOP) to stop recording.
7. Press Remote Control Button 1 (⏮) to review recording.
8. If you need to manage your recorded pictures, press Remote Control Button 4 (SETUP). You can also manage the files by selecting the **SETTING** on **PLAY VIDEO** manual on the screen.



NOTE:

DVR system sometimes need 10 - 20 seconds for reposition before it can work properly, please let it run about 20 seconds each time when you try to record.

USB flash disk and Micro SD's max memory is 8G bit.

LED Indicators



- 1) REM : Remote receiving window
- 2) Power: It indicates that the system is on
- 3) Recording: It will blink during recording
- 4) USB/Micro SD: It indicates that USB stick/Micro SD is connected
- 5) Error: It indicates that the system or USB device has error
- 6) IR: It blinks when the remote control is in use for **Recording Video**

The recorded video files will be found in a directory of USB/Micro SD devices. You can use the on-screen menu or press (REC) button to start recording. Press (■/EXIT) button to stop recording. During the recording, the screen will display recording time and time limit (up to 60 minutes).

Recording time limit

Sometimes you may forget to stop the recording after it is initiated. This unit is featured with a recording time limit. The default time limit is 60 minutes. If recording time over 1 hour, the system will record with a new file

Schedule recording

You can schedule a recording in advance. Simply enable the schedule recording in the SETUP and then the unit will ask user to setup timing. Recording schedule can be used once. You have to set up schedule again for next recording.

Recording via USB Stick / Micro SD Card

The unit can be used to record video and voice via USB devices / Micro SD Card .The recorded video will be stored in the USB devices / Micro SD Card and played back on the TV screen.

Video recording format

The default video recording resolution is 640*480. One-hour recording will take up storage of 500MB. User may select 320*240 to save storage space.

Voice recording

A microphone button located on the front panel allows the user to press the button on to record a voice while the video is recording recording(This function is only available for new versions).

Video Playing

You can use on-screen menu to enter “play video” mode. The unit will display the recorded video and other compatible videos stored in USB stick / Micro SD Card. It will not list the non-compatible videos.

Select the Video File.

When you enter “play video” mode, the set will display all of the available video files on the screen.

You can use [▲] or [▼] button to select desired video and press [▶/ENT] button to play.

Press and hold [▲] or [▼] button to go to previous or next video.

Use [▶/ENT] button to start or pause the playing .Use [■/exit] button to stop or go back to previous menu.

The screen will display “loading, please wait ...” for a few seconds before playing video.

Fast Forwarding and Rewinding

You can use [▶] or [◀] button on the remote control to fast forwarding or rewinding (1x, 2x, 4x, or 8x, speed). Always press [▶/ENT] button to go back to normal playing.

Compatible video format:

Divx3.11/Divx4/Divx5/MPEG1/MPEG2/MPEG4 (MPEG4 video file format: .avi, .m4v, .MPG, MPEG, .VOB)

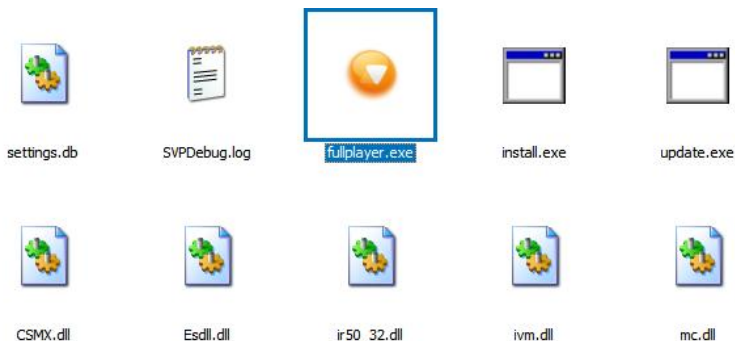
Note: The video player of the device may not support some downloaded videos.

Video Player Software Installation

Generally, the recorded videos can be played on the computer purchased after the year 2006. If you cannot open the recorded document on computer, there are two options:

Option 1: Go to the website “<http://www.kmplayer.com/>” and download the KMPlayer software for free.

Option 2: Use the software “fullplayer.exe” in the CD to replay the video(as follow pictures)



Recharging the Battery

- 1) Plug the charger into the AC socket on the wall and insert the other end into the DC jack of battery box (See Figure2- A).

Note : Don't misuse the battery charger cable and power code, otherwise the battery pack may be damaged, or the system can not work properly.

- 2) Press the charge button (See Figure2-B) while the Battery Box is turned off. The battery can be charged while the battery box is on and the device is being used. However, once the power in the battery runs completely out, it can only be charged when the Battery Box is turned off.
- 3) The charge LED will be red during charging and will turn green when charging is over (Normal charging time: 5 - 6 hours).

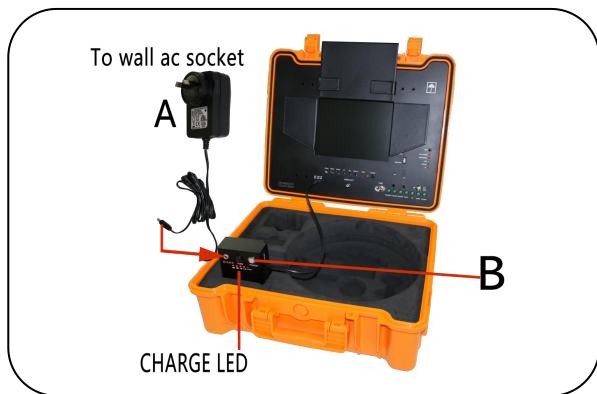


Figure 2

IMPORTANT MESSAGE: Do not overcharge the battery! Overcharging can result in acid leaking from or damage to the battery.

WARNING: Batteries are dangerous goods. Customers/users are prohibited from disassembling and repairing this battery pack by themselves. Otherwise, the manufacturing is not responsible for any consequence and losses.

Battery specifications:

1. TOTAL POWER $\leq 14W$
2. LI-ION BATTERY 12VDC MAX. $\leq 48Wh$ (79Wh optional)
3. CHARGER 13.5V 1700mA
4. CHARGE TIME 6 HOURS
5. WORKING TIME ≥ 200 MINUTES
6. PROTECTIVE VOLTAGE 8.1 V
7. THE VOLTAGE BEFOR DISCHARGING 12.6V
8. LOAD CURRENT 1100mA (INPUT 12.2V)

TROUBLE SHOOTING

Trouble	Reason / Solution
Blank screen	1. Change the fuse
	2. Recharge the battery
	3. Check power line and connect it again.
No signal	1. Read the manual again and reconnect it.
	2. Check the camera and screw down
	3. Clean the camera pins
	4. Check the pins and find if they are in the same level
The camera has weak or no light	Press the "MENU" button, locate the LED brightness setting and then adjust the brightness.
No recording	1. Press the "Video" button and change to Video2
	2. Press POWER button and the monitor indicator light is green.
	3. Use another USB stick /micro SD and try
Recording abnormity	Shut off the unit and restart the unit in correct steps
Flashing pictures	1. Deficiency of the battery power. Please recharge the battery
	2. Misuse of the charger cable and power cord: switch the cables
No working of battery recharging	Misuse of the charger cable and power cord : switch the cables