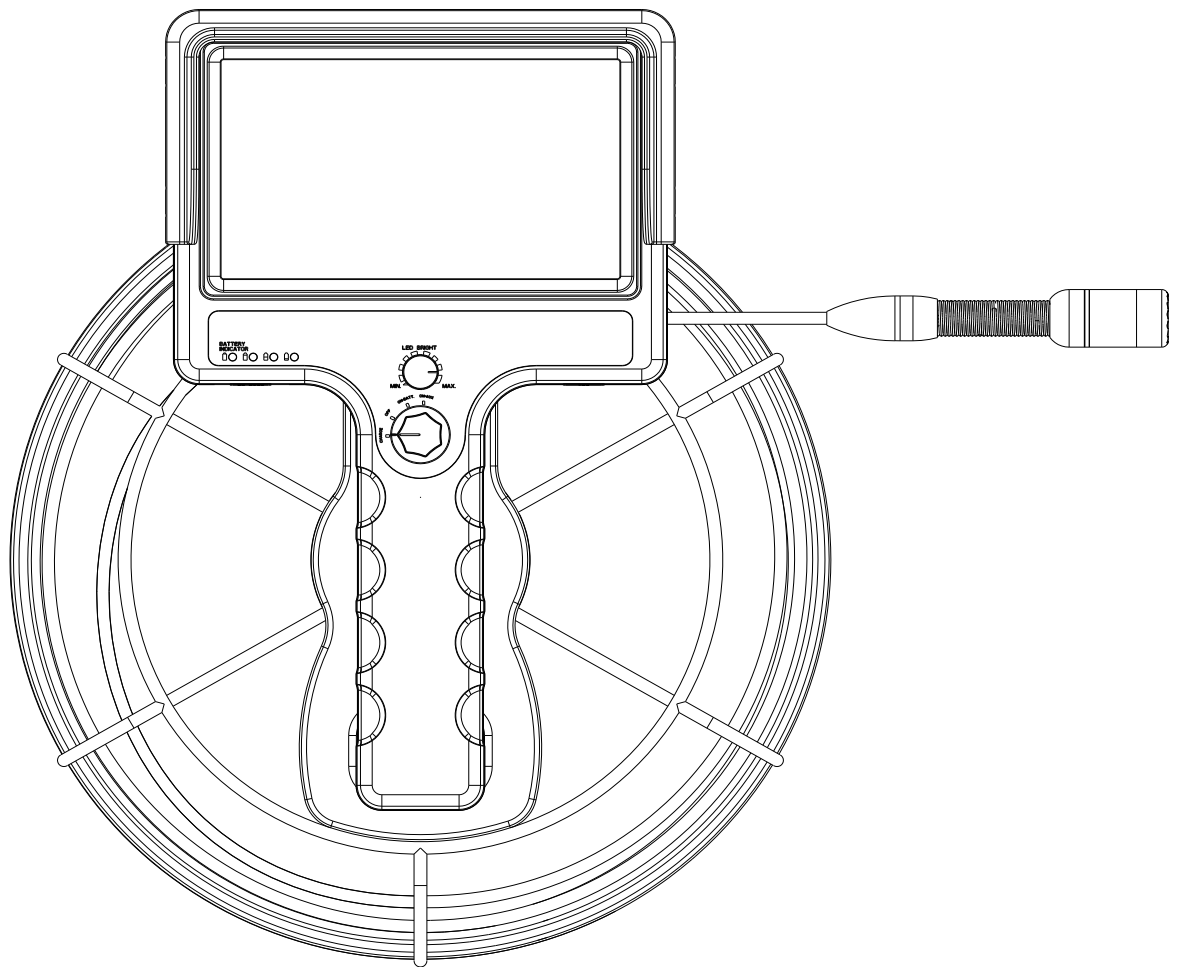


PIPE & WALL INSPECTION SYSTEMS

ASSEMBLY AND OPERATING INSTRUCTION



Read these instructions completely before operating this system

PLEASE CHARGE THE BATTERY FIRST BEFORE USE!

Technical specifications

camera		
	Color camera with sapphire glass lens	
	Wide viewing angle	120°
	Illumination	12 white LEDs
	Operating temperature	-20°F ~ 120°F (-28°C ~ 50°C)
	Stainless steel house	Stainless steel 304
	PAL output	720X576(PAL)
	NTSC output	720X480(NTSC)
	Waterproof	IP68
cable		
	Special gold point touch connector to camera	
	Fiberglass cable	
	Cable length : 20□ 30□ meter	
monitor		
	7" TFT COLOR monitor	Picture Resolution:320 (TV Lines)
	OSD display	
	Video output	1Vpp 75 Ohms
power supply		
	Charge adaptor :110~240VAC ,12.6VDC /1000mA (included.)	
	Lithium battery box (2600mAh, included.)	
Dimensions		
	Case size	□ 45.7cm x 18.2cm x 41.5cm
	Camera	Ø23mm x 120mm
	Cable	reel Ø32.5cm

Save this Manual

Attention

1. Read the this manual carefully before using this system.
2. Avoid using the device in extremely cold, heat, or humidity environment, it may damage the device.
3. Do not drop or press hard on the device.
4. Warranty invalidation if the device is disconnected by users or has any physical damages.
5. Always back up your date before connecting your SD device to this system. The manufacturer is not responsible for any date damage on your device for any reason.
6. Do not disconnect the unit while recording or playing. It may damage the unit and/or the SD device.

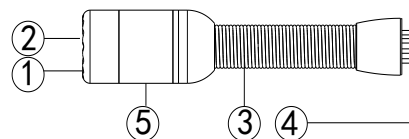
Application

WITH MINI-CAMERA FOR PIPE DIAMETER FROM 25mm TO 120mm.

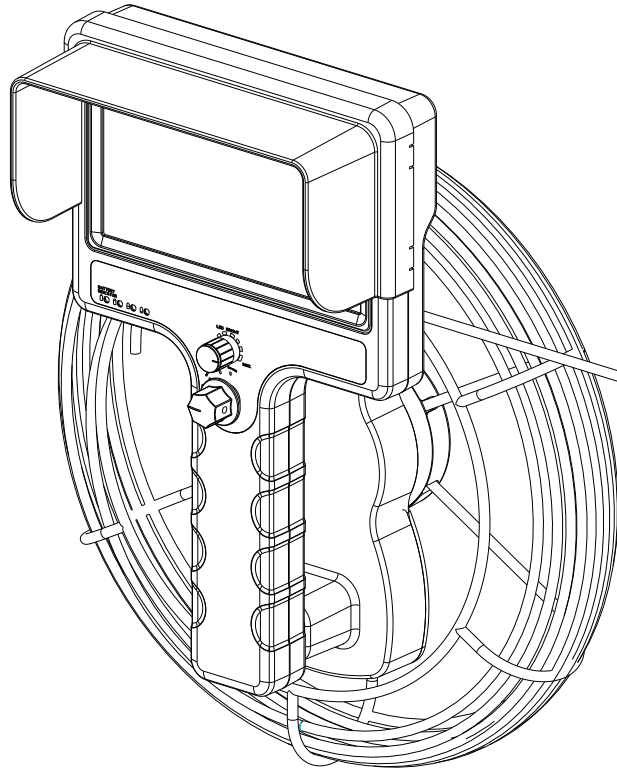
1. WATER SUPPLY
2. WASTE WATER
3. ELECTRICAL AIR CONDITIONER
4. CABLE DUCTING
5. DUCTED VACCUM SYSTEMS
6. PLUMBIN
7. IN BUILDING

Camera

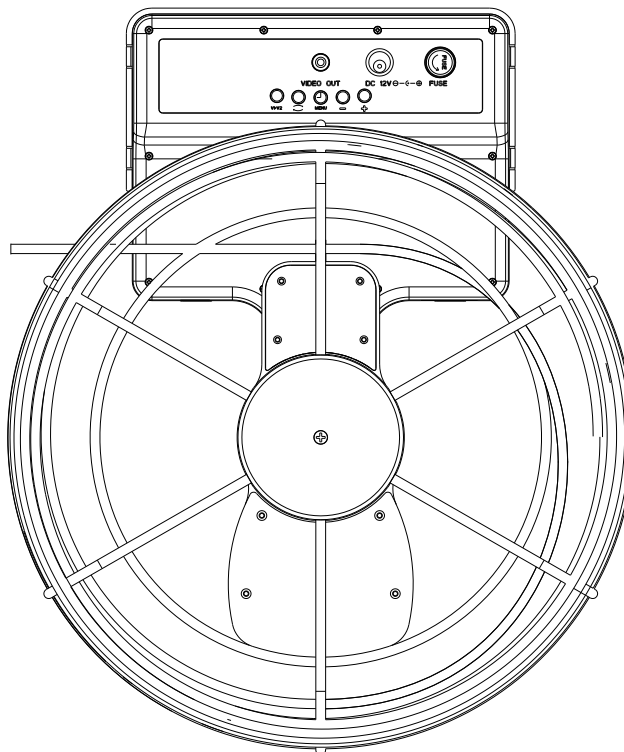
1. WHITE LEDS (12 PCS)
2. LENS
3. SPRING
4. CONNECTER
5. STAINLESS STEEL HOUSE



Know Your Tool

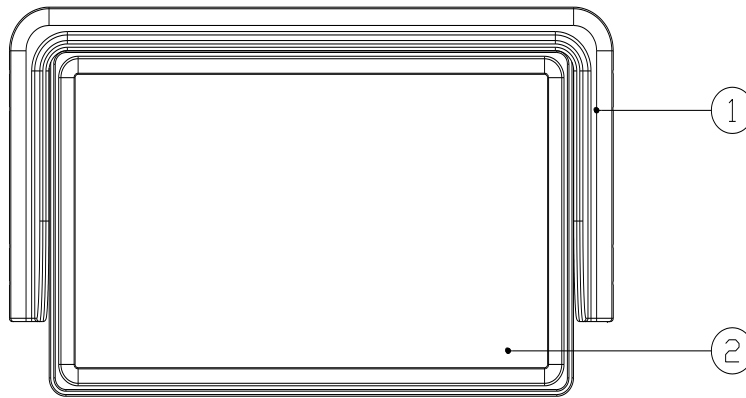


ISOMETRIC VIEW

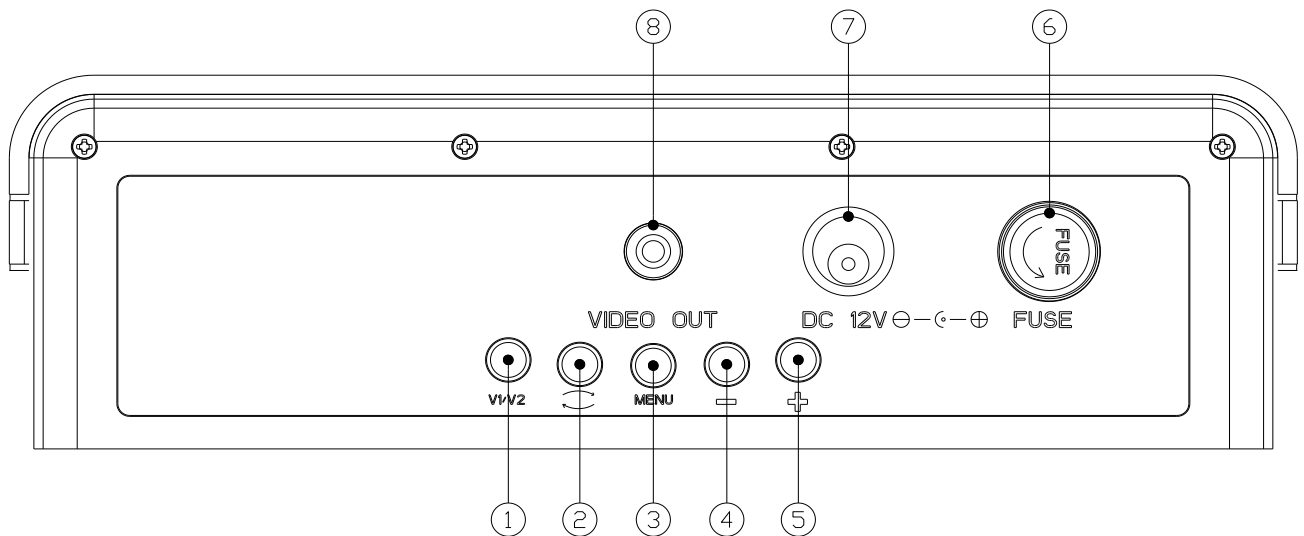


BACK VIEW

Monitor

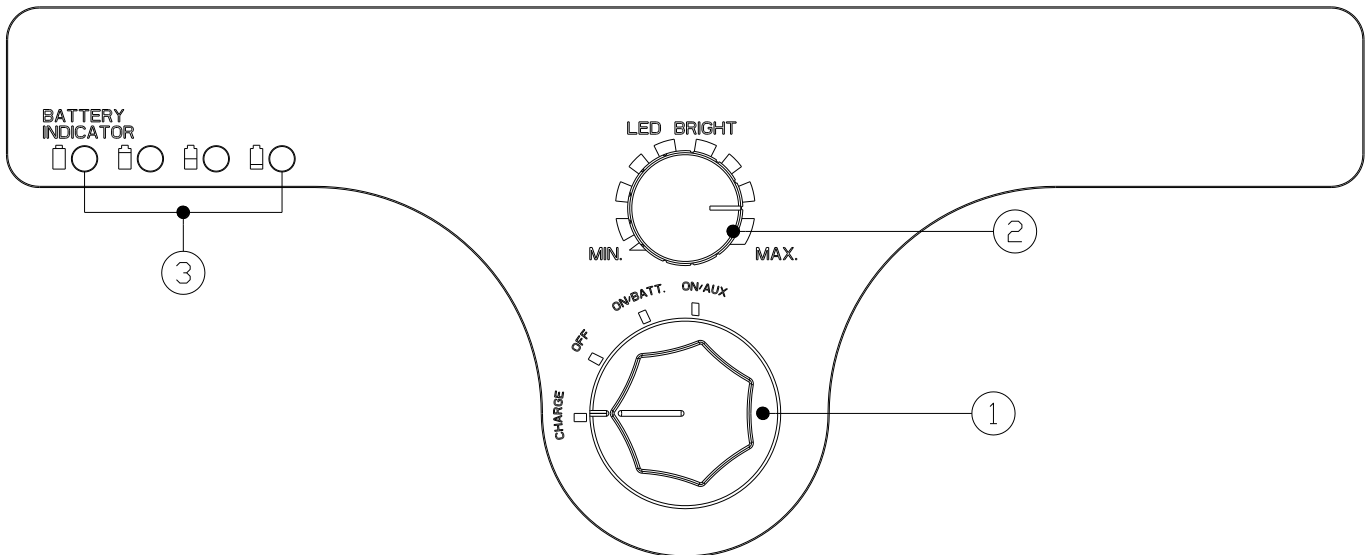


- 1. sunshade
- 2. 7" monitor



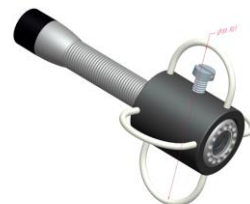
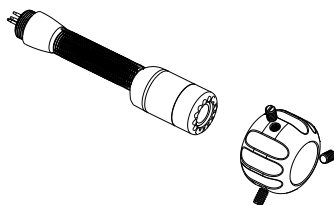
- 1. Video1 video2 selector button
- 2. Image UP and down left and right button
- 3. Menu button (include bright contrast color langue
16:9 4:3 sleep)
- 4. Sub menu down selector
- 5. Sub menu up selector
- 6. Fuse socket
- 7. Charge adaptor jack
- 8. Video output jack

Control part



- 1. Switch
- 2. led bright adjust knob
- 3. Battery level indicator

SKID ASSEMBLE



Basic operation

1. **IMPORTANT: When connecting the camera to the Monitor the power must be off .**
2. **Screw the camera to the reel cable connect the reel to the Monitor (See Figure 1-B).make sure the camera lens is clean.**
3. **Press the switch on the monitor and DVR will work after five seconds.**
Gently insert the camera into a pipe duct, etc and reel out the cable until it is at the desired depth.
IMPORTANT: Avoid kinking the fiberglass cable as this will cause irreversible damage. Do not bend under sharp angles and do not twist the cable.
NEVER use the camera and/or cable as an unclogging tool.
4. **adjust the led bright knob to suitable position .**

Press the **MENU** button to enter the setup of the monitor. Move through the setup page using the select button and adjust the values with the **UP** and **DOWN** buttons. Press and hold the **UP** and **DOWN** buttons to increase setting speed. Following values can be set between 0 and 100:
bright-contrast- color –langue-6:9 - 4:3-sleep)

5. **To view the images on another screen (not incl.) connect that screen with a video cable (not incl.) to the VIDEO OUTPUT on the control box.**
6. **After use, switch the power off, carefully retract the camera from the inspection area. Clean the cable and wind it back on the reel. Disconnect all cables and place the protective caps back on the connectors. Make sure the camera and cables are clean and dry before storing them back in the case. Use a clean, soft and dry cloth to clean it .**
7. **Storage and cleaning**
 - Always return the equipment back to its protective case when not in use.
 - Do not close the case with wet equipment inside as this will increase the risk of mould.
 - Clean the rest of the equipment with a clean dry cloth. Never use solvents or abrasive solutions.

Fuse

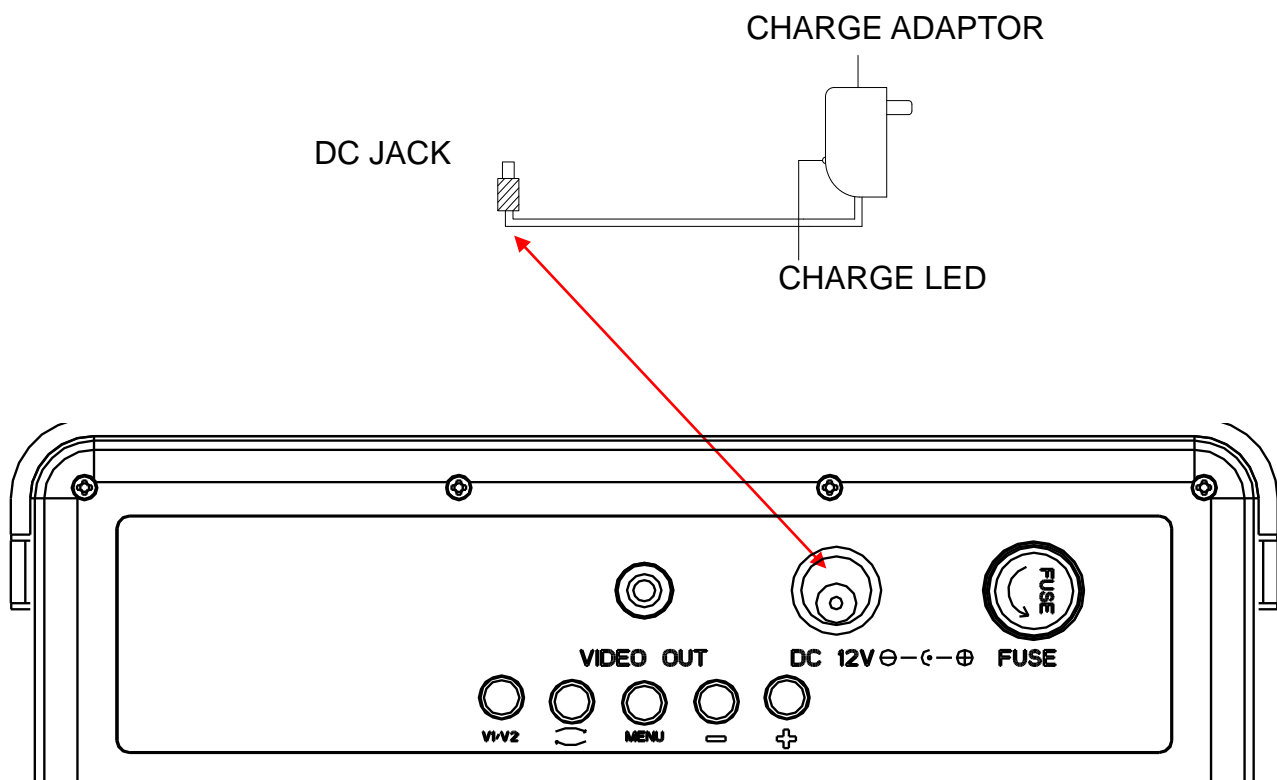
1. **The fuse and fuse cap on battery box are not assembled during shipping, please relocate the fuse with cap to the fuse holder first before use.**
2. **If the status LEDS on the control box don't light up after switching on the battery box, check the fuse.**

- Turn the fuse cap counter clockwise to remove it from the battery box.
- Only replace the fuse with a new one with the same specifications as the original one (F2A250V).

Charge the battery

- 1) If the status LEDs on the battery box in lower level, charge the battery. Insert the charge adaptor cord into the battery charge jack.(**Figure 2**)
- 2) Switch to the charge position on control box.
- 3) Charge LED will be red during charging and turn to green when finish charging (normally charging time 6-7 hours).

Figure 2



4) Battery specifications:

1. TOTAL POWER	14W	
2. LITHIUM BATTERY	12VDC MAX. \leq	40Wh
3. CHARGER	12.6V	1A
4. CHARGE TIME	5	HOURS
5. WORK TIME	≥ 210	MINUTES

6. PROTECTIVE VOLTAGE 9 V
 7. THE VOLTAGE BEFOR DISCHARGING 12.6V
 8. LOAD CURRENT 600mA(INPUT 12.2V HOUR)

Assembly drawing and parts list

Part No.	Description
1	STAINLESS STEEL CAMERA
2	TFT COLOR MONITOR WITH DVR
3	CABLE WITH WHEEL
4	CHARGE ADAPTOR
5	AL□ ABS□ CASE
6	SUNSHADE
7	SKID1
8	SKID2
9	CUSTOMER MANUAL
10	SCREW DRIVER