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Operating Instructions



7 inch HD 2.4GHz Digital Wireless Vehicle Quad-view Monitor

Please read this manual thoroughly before operating the device,
and keep it for future reference.

V 1.0

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1. Precautions

● Storage and Keeping

- (1) Do not expose the monitor to excessive heat or coldness. Storage temperature is -30~+80°C; Operating temperature is -20~+70°C; Battery operating temperature is 0-70°C; Humidity is Rh90%.
- (2) Never use this device near a bathtub, wash basin, kitchen, damp basement, swimming pool or similar places.
- (3) Never use this device in the environment with excessive moisture, dust or smoke.
- (4) Avoid dropping or striking.
- (5) Never use this device in enclosed spaces, areas with excessive vibration or subject to severe impacts.
- (6) Never puncture, scratch or use abrasive cleaning materials on this device.
- (7) Do not place cables where they may be pinched or stepped on.
- (8) Leave at least a 2" space between the monitor and walls, cabinets or other objects to allow adequate air circulation around the device.
- (9) The monitor is not designed to be waterproof.

● Operating Precautions

- (1) The device may be powered by a 12 or 24 volt automotive battery or vehicle electrical system.
- (2) Make sure all cables are connected properly. Observe polarity. Improper cable connections may damage the monitor. Remove the power cable connections when you do not intend to use the device.



Warning!

1. High voltage is present within the monitor. Opening monitor case should be done by professionals.
2. Do not watch any video while driving unless you are monitoring rear view camera display.





Special Notice

Occasionally, a few highlights or dark spots may occur on the LCD screen. That is a very common phenomenon in active matrix display technology, and it doesn't necessarily indicate any defects or faults.

Never try to repair this device by yourself. If any problem, please turn off the display at once and notify our company or authorized dealer. The monitor is a complex device. Any disassembly or modification may lead to damage and invalidate warranty.

●Maintenance

1. Remove all the cable connections from the monitor before cleaning the device.
2. Use a mild household detergent and clean the unit with a slightly damp, soft cloth.
3. Never use strong solvents such as thinner or benzine, as they might damage the finish of the device.

	Caution	
	Risk of electric shock Do not open	
Caution: to reduce the risk of electric shock, Do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.		



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



This symbol is intended to alert the user not to waste electrical and electronic equipment.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your warrantee and necessitate expensive repairs.

2.Features

- TFT LCD monitor with wide angle view and high resolution display.
- 4 wireless camera input
- Image can be set to horizontally flipped, vertically flipped and normal
- Support multiple image display modes like single, dual,, quad, H-split.
- Support 5 x triggers, trigger priority & trigger delay are selectable.
- Support auto scan, scan channel and scan time are selectable.
- Support backlight adjustment manually and automatically.
- Supports parking line, parking line size and position can be adjusted.
- With 1W speaker.
- Monitor operated by remote control or keypad.
- Capacitive touch-screen optional.
- Working voltage: 10-32V.
- Compliance with CE/FCC standards.

3. Technical Specifications







LCD Size	7"
Resolution	1024 x 3(RGB) x 600
Contrast	700:1
Brightness	600cd/m ²
View Angle	U: 85 / D: 85 / R :85 / L: 85
Aspect Ratio	16 : 9
Channel	4 channels
Operating Frequency	2400 -2483.5MHz (ISM band)
Receiving Sensitivity	-78 dBm
Transmitting power	FCC ≤ 26dBm CE ≤ 20dBm MIC ≤ 10dBm
Decompression Form	H.264
Modulation	FHSS
Time Delay	200 ms
Transmitting Distance	FCC ≤ 300 m CE ≤ 200 m MIC ≤ 60 m
Micro SD Card	Max. 128 GB
Power Supply	DC 10-32V
Power Consumption	Max. 10W
Loudspeaker	1W / 8Ω
Operating Temperature	-20~+70°C,RH90%
Storage Temperature	-30~+80°C,RH90%



Special Notice

All specification are subject to change without notice.

4. Accessories

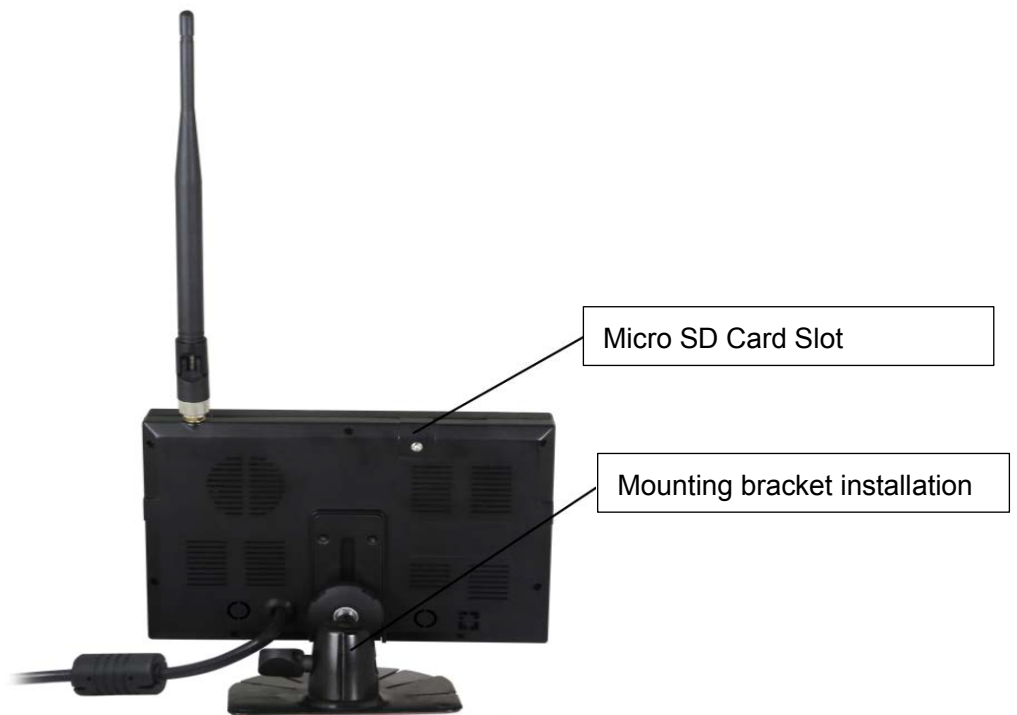
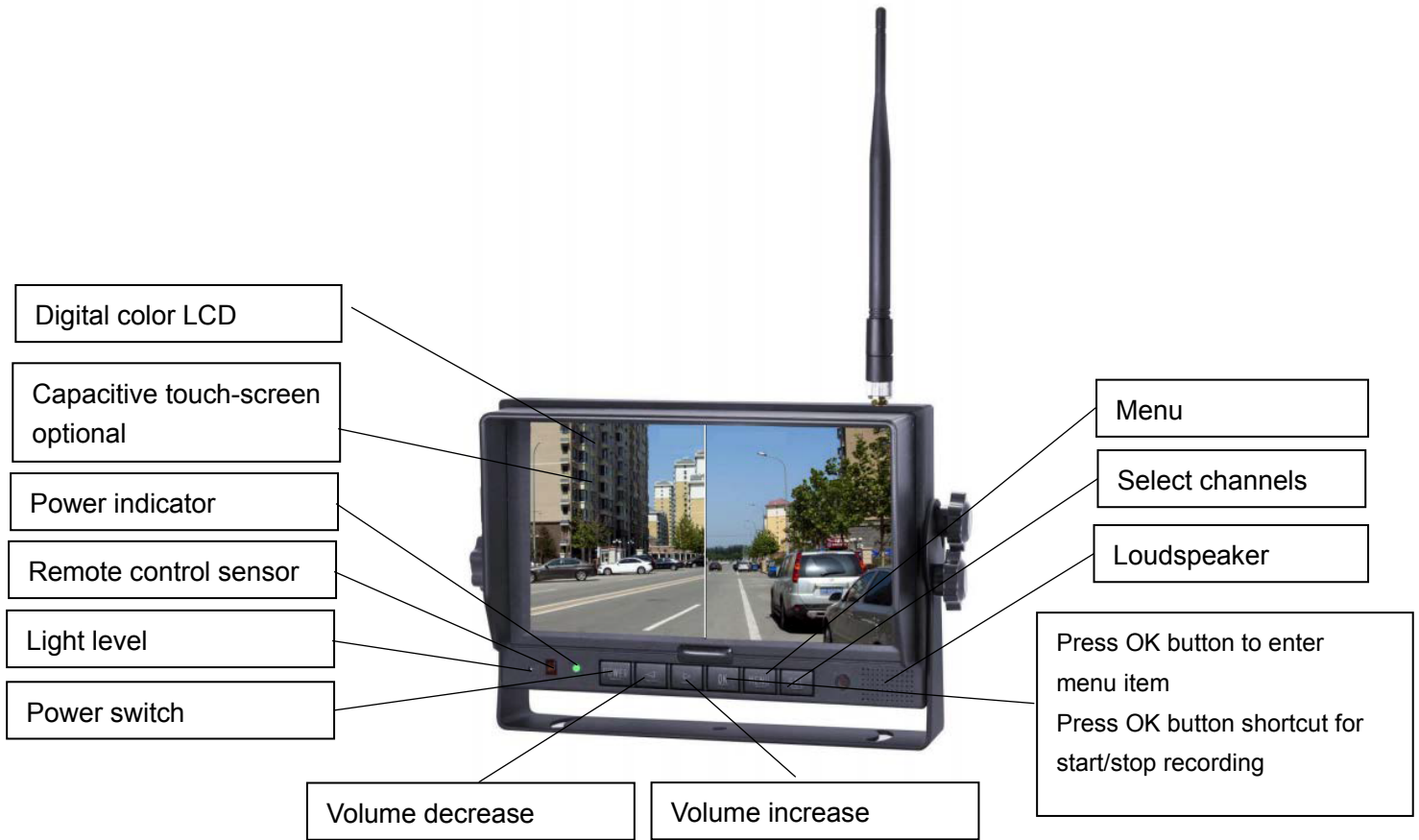
 <p>U-Support Bracket</p>	 <p>Center Mount Bracket</p>
 <p>Sun Shield</p>	 <p>Power cable</p>
 <p>Angle Adjustment Screws</p>	 <p>IR Remote control</p>



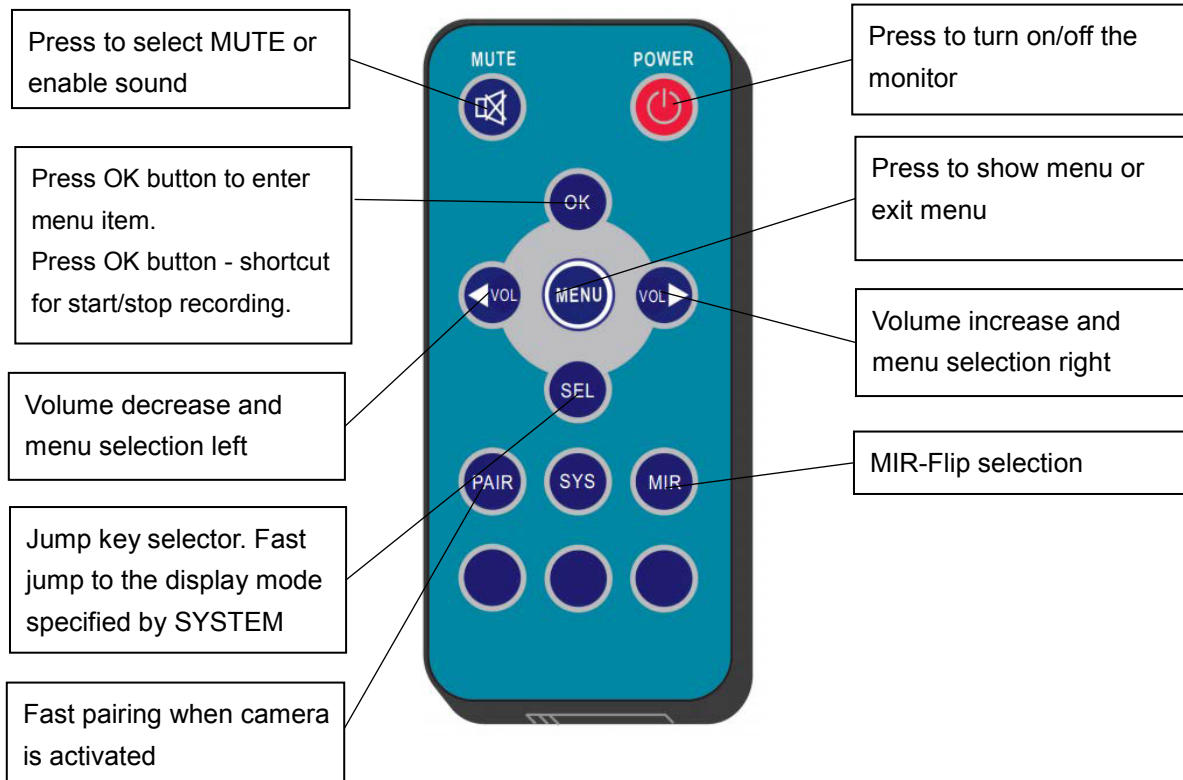
Special Notice

Accessory supply may be different for different application.

5.Parts Identification



6. Remote Control Operation



- MUTE (Mute)

Press to select MUTE or enable sound.

- POWER (Power switch)

Press to turn on / off the monitor.

- OK

Press OK button to enter menu item or save user settings. Press OK button - shortcut for start / stop recording.

- MENU

Press to show menu or exit menu.

- VOL-

Volume decrease and menu selection left.

- VOL +

Volume increase and menu selection right.

- SEL

Jump key selector. Fast jump to the display mode specified by SYSTEM SETUP - JUMP KEY.

- PAIR

Fast pairing when camera is activated.

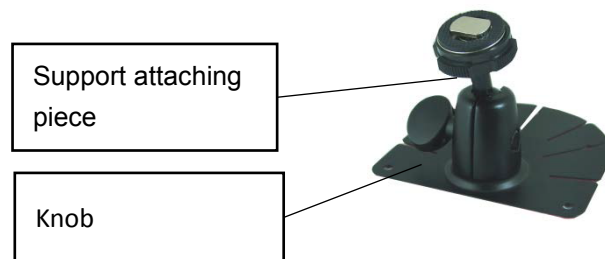
- MIR

MIR-Flip selection.

7. Basic Operation

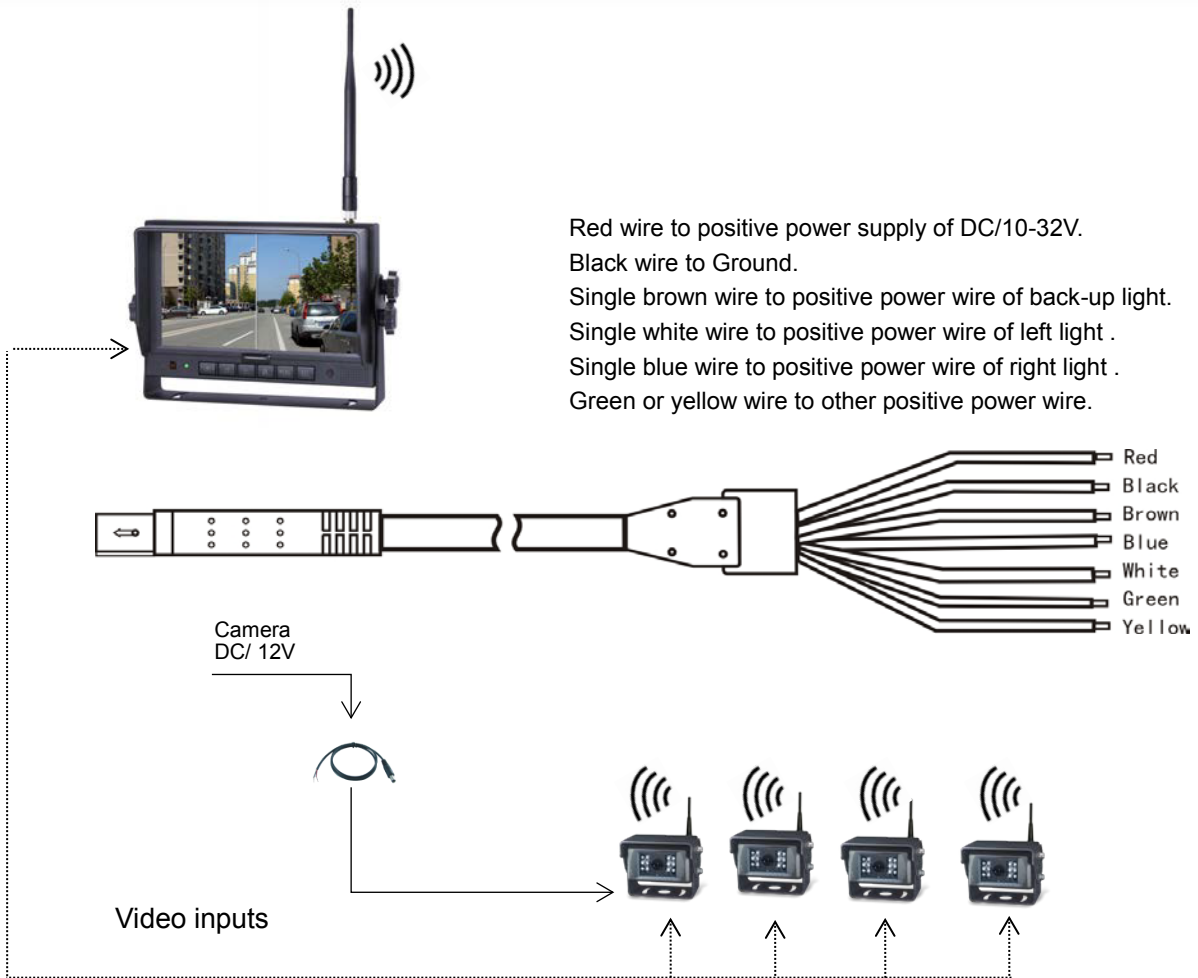
7.1. Installation of Center Mounting Bracket

- ① Adjust monitor level by sliding the support to the desired height.
- ② Adjust the angle of the monitor and tighten the knob on the center mounting bracket.



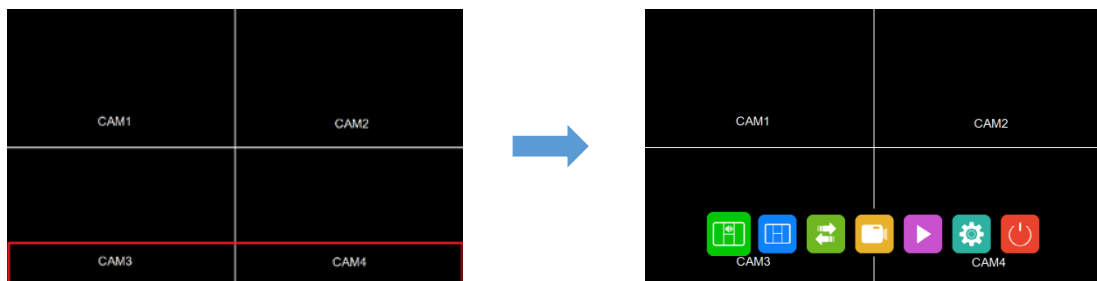
7.2. Installation of U-support Bracket





8.Menu Instruction

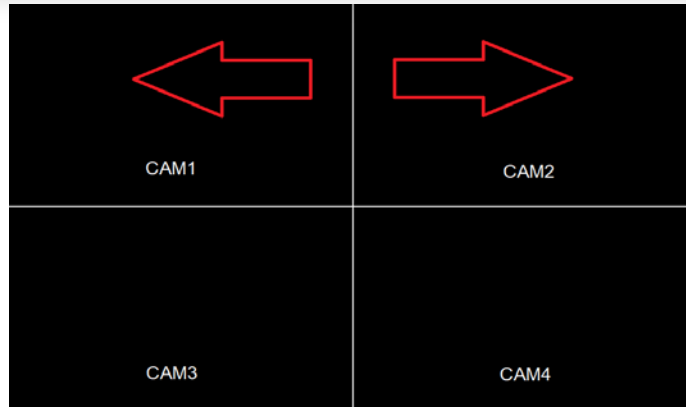
8.1 Preview Interface



Pic.8.1-1

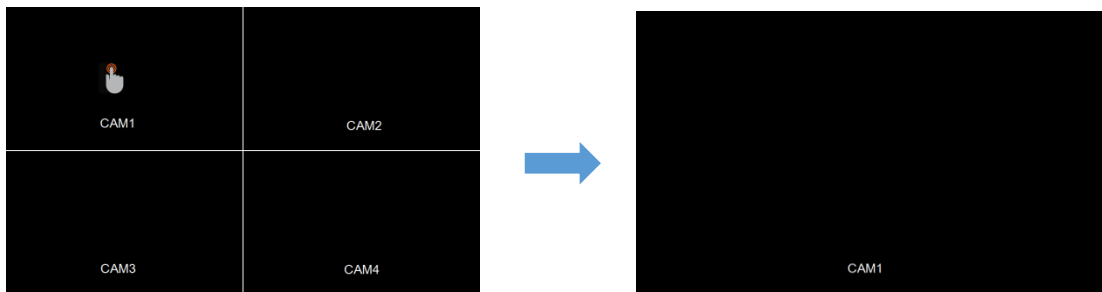
Touch Screen Instructions:

- Touch any area within the red box to bring up the main menu.



Pic.8.1-2

- Swipe left/right on the screen to switch to different views, in the order: CAM1->CAM2->CAM3->CAM4->DUAL->H SPLIT->QUAD
- Swipe up/down on the screen to exit/enter standby mode quickly.

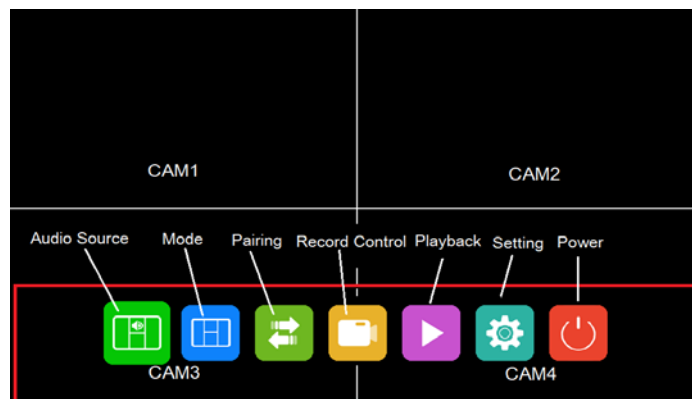


Pic.8.1-3

Touch Screen Instructions:

- In the split view, touch the single view channel to zoom it to full screen, and touch it again to return to multi-split view.

8.2 Main Menu



Pic.8.2

Touch Screen Instructions:

- Touch the icons to enter the menu or touch the area outside the red line to exit.

8.2.1 Audio source

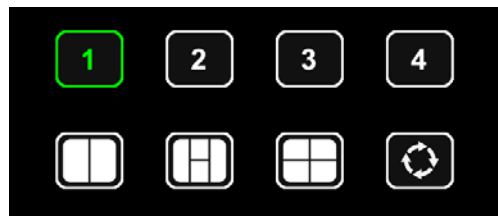


Pic.8.2.1

Feature Instructions:

- Switch audio channels in the multi-split view screen.

8.2.2 Mode

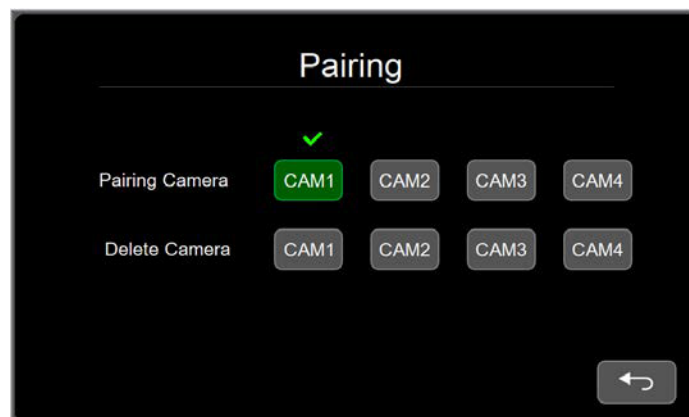


Pic.8.2.2

Feature Instructions:

- Select different icons to switch to the corresponding screen, the last icon is to enable automatic scanning.

8.2.3 Pairing



Pic.8.2.3

Feature Instructions:

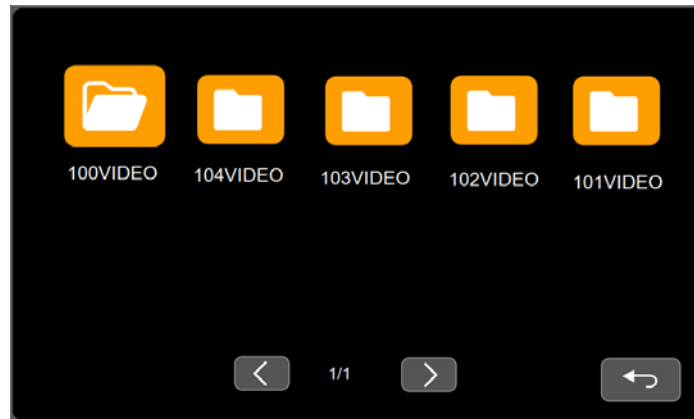
- In Pairing Camera, you can connect the camera to the designated channel (CAMx); In Delete Camera, you can delete the camera of the corresponding channel(CAMx).

8.2.4 Record Control

Feature Instructions:

- Click the icon to start or stop recording.

8.2.5 PlayBack



Pic.8.2.5-1

Feature Instructions:

- The folder will increase as video files rise with a maximum of 997 files in a folder. A new folder will be created after video files exceed the maximum volume. The larger the folder number, the newer folder. If the SD card is full, files will be deleted from the oldest folder.

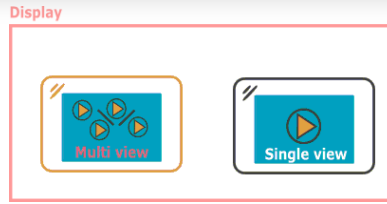
Camera	Name	Created	Group Num
CAM1	REC0002.MP4	2021-05-27 15:16	Grp2
CAM1	REC0001.MP4	2021-05-27 15:12	Grp1

A screenshot of a video playback interface showing a table of video files. The table has four columns: 'Camera', 'Name', 'Created', and 'Group Num'. The first row is highlighted with a green border and contains the following data: 'CAM1', 'REC0002.MP4', '2021-05-27 15:16', and 'Grp2'. The second row contains: 'CAM1', 'REC0001.MP4', '2021-05-27 15:12', and 'Grp1'. At the bottom of the screen, there are four navigation controls: a left arrow, a '1/1' indicator, a right arrow, and a circular refresh arrow.

Pic.8.2.5-2

Other Instructions:

- **Camera:** Which TX does the video file belong to.
- **Name:** filename
- **Created:** creation date
- **Group Num:** Each time video recording is enabled, the corresponding value will increase by 1. The same value means that the videos are recorded at the same time, and the Group Num of the video recorded under a multi-split screen is the same.

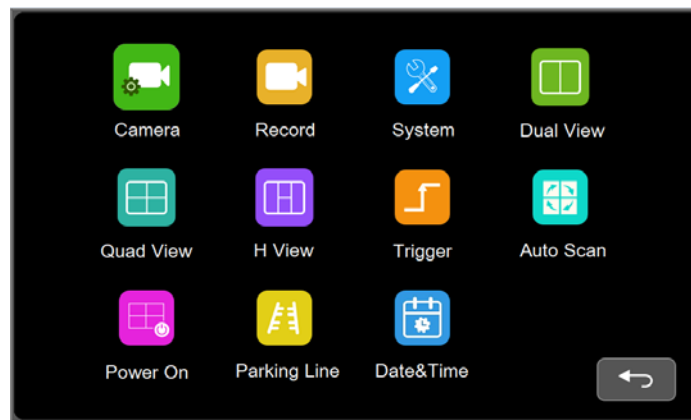


Pic.8.2.5-3

Feature Instructions:

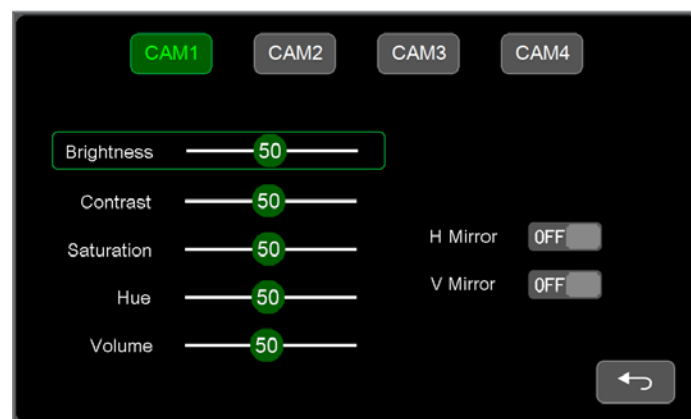
- A menu will pop up before playing a multi-split view recording to select whether to play a multi-split view screen or just a single view recording.

8.2.6 Setting



Pic.8.2.6

8.2.6.1 Camera



Pic.8.2.6.1

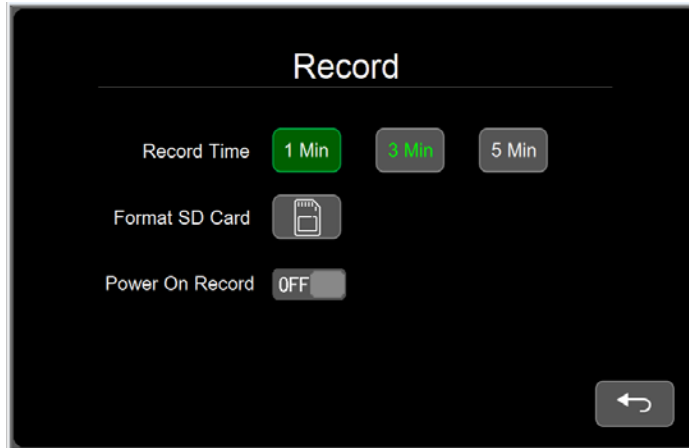
Feature Instructions:

- Touch screen or press left and right keys plus OK key to switch to the corresponding channel.
- Press the Menu key of remote control or button panel to return to the channel

selection;

- Drag the corresponding slider bar and mirror setting icon, you can adjust the corresponding color, volume and mirror ON/OFF state.
- For key operation: when the cursor is in the slider area, different icons can be selected when the cursor is green. To adjust the value, press OK to turn the cursor red, and then press left/right to adjust the value. Press OK again and the cursor turns green again.

8.2.6.2 Record

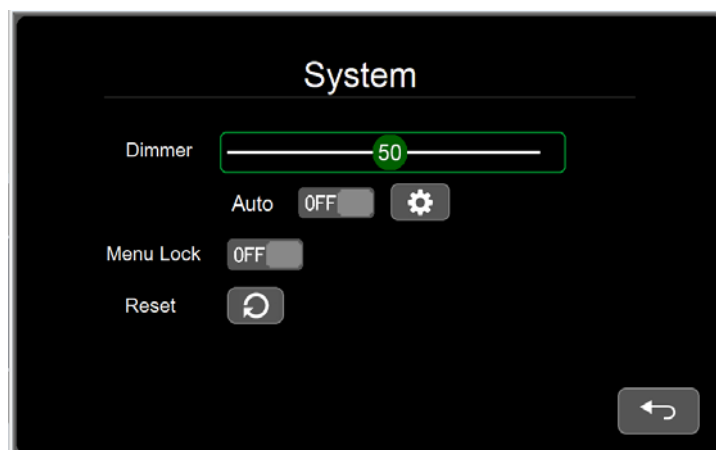


Pic.8.2.6.2

Feature Instructions:

- You can set the video duration, format the SD card, and set recording upon power on.

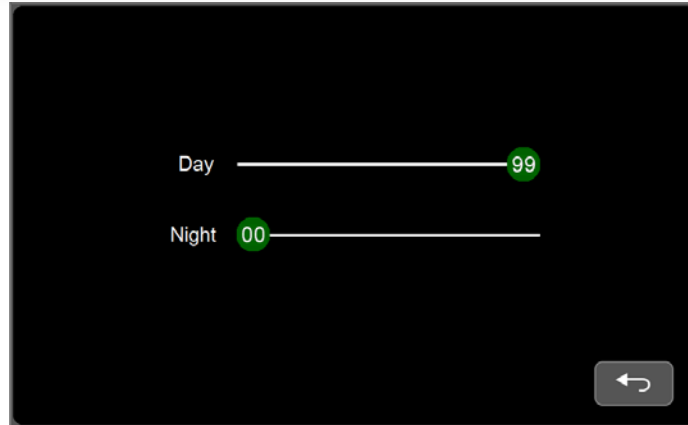
8.2.6.3 System



Pic.8.2.6.3-1

Other Instructions:

- When Auto backlight (Auto) is off, drag the slider to adjust the screen brightness; when it is on, dragging the slider is invalid.



Pic.8.2.6.3-2

Feature Instructions:

- The brightness of the automatic backlight can be adjusted. Day indicates the brightness under high ambient brightness, and Night indicates the brightness under low ambient brightness.
- Menu Lock disables the touch screen.
- Long press the power button for 3s in the interface without menu display will open/close menu lock.

8.2.6.4 Dual View

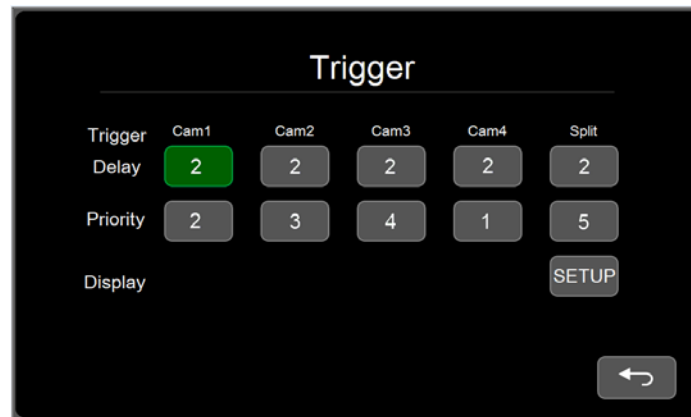


Pic.8.2.6.4

Feature Instructions:

- The tx highlighted in green indicates the channel being displayed.
- Touch screen or press left and right keys plus OK key to select any tx to put the corresponding position.
- The operation of Quad View、H View is the same as the Dual view.

8.2.6.5 Trigger

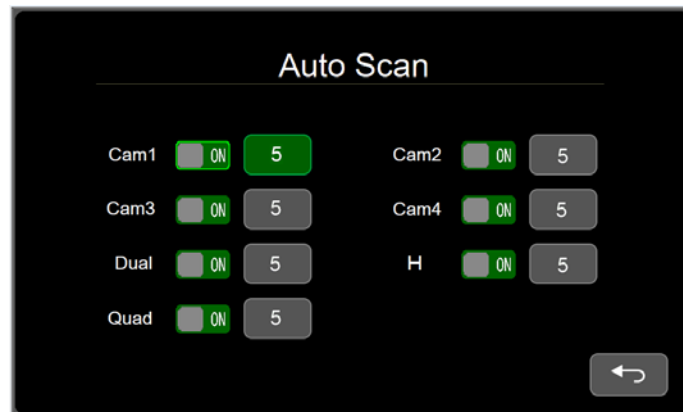


Pic.8.2.6.5

Feature Instructions:

- Trigger Delay ranges from 1 to 60s.
- Priority ranges from 1 to 5.
- Trigger function takes precedence over automatic scan function.
- When the trigger signal is detected, the signal source will automatically switch to the corresponding screen. When the trigger ends, it returns to the previous screen.
- Support standby trigger.
- Display only applies to yellow trigger wires.

8.2.6.6 AutoScan

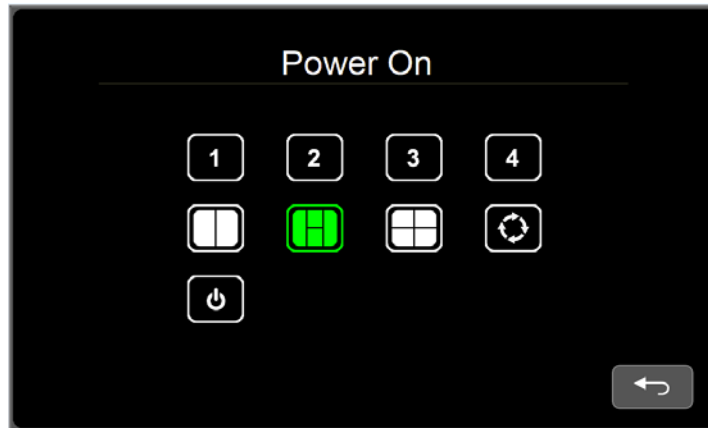


Pic.8.2.6.6

Feature Instructions:

- The duration of automatic scanning ranges from 5 to 60s.
- Each screen can be set to be automatically scanned.

8.2.6.7 Power On



Pic.8.2.6.7

Feature Instructions:

- Touch screen or press the left/right keys to select the corresponding icon, upon startup, the corresponding screen will be displayed or entering automatic scanning or standby state.
- Click on the highlighted icon or press the OK key, the green cursor will disappear, and the last mode is enabled, in which the device will automatically enter the state before shutdown upon power on.

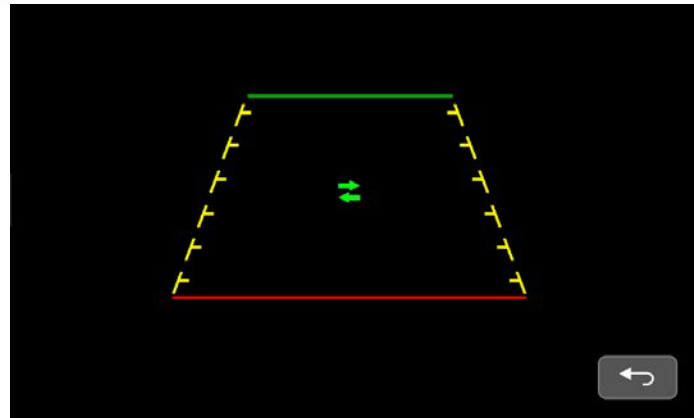
8.2.6.8 Parking Line



Pic.8.2.6.8-1

Feature Instructions:

- When the switch is ON, the single view when it is triggered will display the parking line.



Pic.8.2.6.8-2

Other Instructions:



: The left and right keys enable the cursor to move left and right.



: The left and right keys enable the cursor to move up and down.

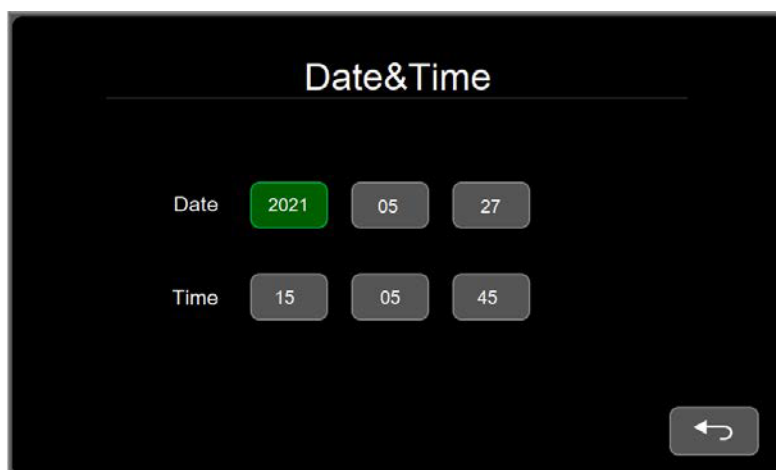


: The left and right keys enable the adjustment of cursor size.

Feature Instructions:

- The OK key is used to switch between different modes.
- The cursor can be adjusted by sliding on the screen with one finger, and the cursor size can be adjusted with two fingers. The status of icons in the middle of the cursor does not affect touch adjustment.

8.2.6.9 Date&Time



Pic.8.2.6.9

Feature Instructions:

- Select the appropriate icon to set the date or time with the keyboard.

8.2.7 Power Off



Pic.8.2.7

Feature Instructions:

- When Screen Off is selected, it will enter standby and respond when triggered. When Sleep is selected, it will enter Sleep state and will not respond to the trigger.

9. Recording Time

With Micro SD cards in different capacities, please refer to the table below for recording time under 2 different image modes.

Recording time in the table is for manoeuvring vehicles. Static recording would save space and lasts for 2-3 times longer.

Micro SD MODE	8GB	16GB	32GB	64GB	128GB
SINGLE	7.5h	15h	30h	60h	120h
SPLIT	8.5h	17h	34h	68h	136h

10. Installation Tips

10.1 Antennas should be vertically lined to the ground. Make sure there is no obstacle around antennas.



10.2 Magnet based extension antenna should be attached on the top of the vehicle. Make sure there is no obstacle around or between 2 antennas.



10.3 Wireless system installation instruction.

- Pair the monitor with the camera before installing the wireless system on vehicle:
 - (1) Before pairing, power off the unpaired camera and switch the monitor channel to the one to be paired; enter MENU interface, select PAIRING and then press OK; then the monitor enters the PAIRING countdown of 20 seconds, during which the camera to be paired shall be connected to the power supply; after 5 seconds, the camera will be paired with the monitor and the images of the paired camera will be displayed on the monitor if the pairing succeeds. Otherwise, repeat the above code pairing operation steps.
 - (2) After one channel of the monitor is paired successfully, switch to the next channel to be paired; power off the previous paired camera and repeat operation steps above.
 - (3) After pairing all channels, connect all paired cameras with power supply; press SEL button on the monitor to switch channels; check images of each channel; and then install the wireless system on vehicle after confirming that there is image on each channel.

- Solutions for Poor Monitor Signal
 - (1) Please confirm the height of the camera from the ground is more than 1 meter, the antennas of the display and camera are perpendicular to the ground, and the antennas are tightened.
 - (2) If there is metal shielding between the monitor and the camera, an extended antenna should be used to bypass the metal shielding to ensure smooth transmission of antenna signal in space.
 - (3) When using the flat extension antenna, the patch antenna of the monitor and camera shall be installed on the same side of the vehicle, which is conducive to the transmission of antenna signal.

11. Troubleshooting

Symptoms	Possible Causes / Solutions
No picture, no sound	Improper connection of automobile adapter. Use of un-authorized power supply. Power switch is on OFF position.
No signal	Check whether the camera has power supply. Pair the monitor and the camera again.
No sound	Check whether the sound volume is turned off or set too low.
Dark picture	Check whether brightness and contrast are adjusted correctly.
No color	Adjust the HUE settings.