Wireless DVR System
Operating Instructions

150' Wireless

Built-in DVR

2-4 CAM Digital Wireless DVR System w/ 9"LCD

(Can be bought with 2, 3 or 4 Wireless Cameras)

Please read this manual thoroughly before operating the device,

and keep it for future reference.

V 1.4

Contents

1. Precautions

● Storage and Keeping

1. Do not expose the monitor to excessive heat or cold. The storage temperature of this device is -30~+80℃, and the operating temperature is -20~+70 ℃. The 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 environments with excessive moisture, dust or smoke.
4. Avoid dropping or striking this device.
5. Avoid using 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.
10. All outdoor cameras are weather and waterproof; however, they are not able to be submerged underwater for more than 60 seconds or cannot withstand direct contact   (with 2-5 inches) with high pressure water pressure. If you submerge these cameras under water or wash these cameras with high pressure water, then warranty will be voided and condensation may occur inside the camera.

● 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: Electrical polarity (positive and negative) is the term used to describe the direction of current flow in an electrical circuit. Current flows from the positive pole (terminal) to the negative pole. Electrons flow from negative to positive. In a direct current (DC) circuit, current flows in one direction only, and one pole is always negative and the other pole is always positive. In an alternating current (AC) circuit the two poles alternate between negative and positive and the direction of the current (electron flow) reverses periodically. Improper cable connections may damage the monitor or camera. Remove the power cable connections when you do not intend to use the device.

● Instructional Videos

Many customers would rather watch quick 1-2 minute instructional videos rather than read the manual. If this is you, please check out our instructional videos that will show you how to set up and learn to use your new dash cam. There are 2 ways to find these videos:

1. Visit www.dashcam.co , scroll to the bottom of the website to the footer, click in "INSTRUCTIONAL VIDEOS", Scroll down to Digital Wireless DVR System
2. Visit www.dashcam.co, find Digital Wireless DVR system. Then click on the "EXTRA" Tab above the product description. Then click on the "INSTRUCTIONAL VIDEO" button

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⚠ Warning!

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

● 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. 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 warranty and necessitate expensive repairs.

● Declaration of conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

CE

2. Features

1. TFT LCD monitor with wide angle view and high resolution display.
2. NORMAL, MIRROR, FLIP and MIR-FLIP viewing available.
3. Split mode, auto-scan mode and single-display mode available.
4. Auto pairing: Auto pairing happens when camera is activated.
5. Support 4-channel composite and single-channel recording in AVI signal format.
6. Auto dim function available.
7. Full-function remote control.
8. 4 wireless camera input.
9. Multiple video formats: PAL / NTSC.
10. Wide voltage input: 10 - 32V.
11. On-board speaker.
12. Auto switch to the working channel when trigger is activated

3. Technical Specifications

LCD size	9"
Resolution	800 x 3 (RGB) x 480
Contrast	500:1
Brightness	400 cd/m²
Viewing Angle	120 Degrees
Dot pitch	0.0642(W) x 0.1790(H)
Aspect Ratio	16:9
Channel	4 channels
Operating Frequency	2400 - 2483.5 MHz
Receiving Sensitivity	-89 dBm
Decompression Form	MPEG4
Transmit Output Power	17 dBm
Modulation	2.4G FSK/GFSK
Time Delay	120ms
Transmitting Distance	Up to 150 feet
Micro-SD /TF Card	Max.　128G
System Format	PAL / NTSC
Power Supply	DC 10-32V
Power Consumption	Max. 6W
Loudspeaker	1.5W/8Ω
Operating temperature	-20~+70ºC,RH90%
Storage temperature	-30~+80ºC,RH90%

⚠ Special Notice

All specification are subject to change without notice.

4. INCLUDED ACCESSORIES

 U-Support Bracket	
 IR Remote control	 Power cable
 Angle Adjustment Screws	 Sun Shield

4. Optional Accessories
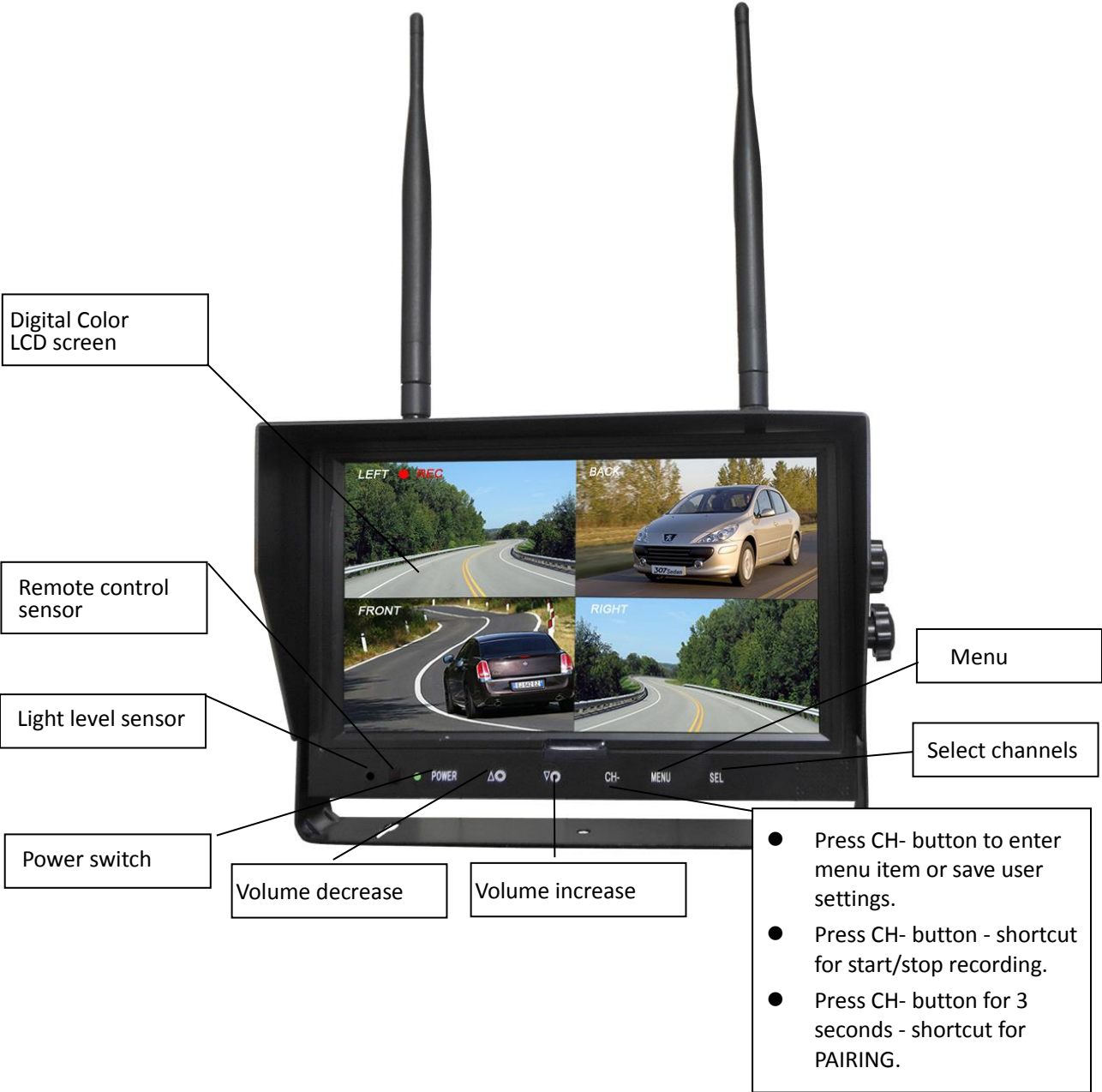
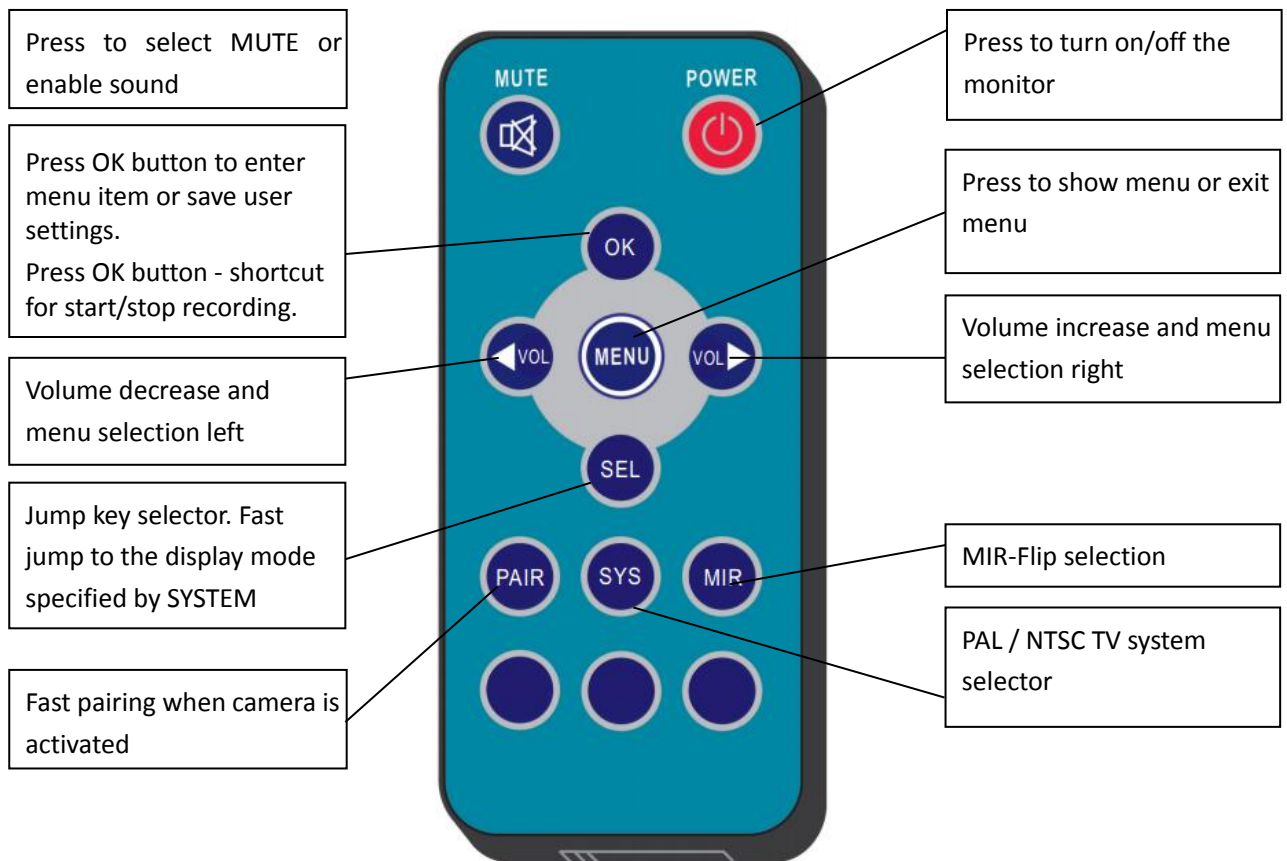|	
Additional Wireless Camera	128GB SD Card
Wireless Battery Pack 10 Hr Weatherproof Rechargeable Battery with optional Magnet Mount to power camera (PERFECT for TRAILERS & RV's)	Magnet Mount
Suction Cup Bracket	SD Card Reader

⚠ Special Notice

Accessory supply may be different for different application.

5. Parts Identification

Digital Color LCD screen

Remote control sensor

Light level sensor

Power switch

Volume decrease

Volume increase

Menu

Select channels

- Press CH- button to enter menu item or save user settings.
- Press CH- button - shortcut for start/stop recording.
- Press CH- button for 3 seconds - shortcut for PAIRING.

Micro-SD Slot

U-Support bracket

6. Remote Control Operation

Press to select MUTE or enable sound

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

Volume decrease and menu selection left

Jump key selector. Fast jump to the display mode specified by SYSTEM

Fast pairing when camera is activated

Press to turn on/off the monitor

Press to show menu or exit menu

Volume increase and menu selection right

MIR-Flip selection

PAL / NTSC TV system selector

MUTE   POWER

OK

VOL   MENU   VOL

SEL

PAIR   SYS   MIR

- ## 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

- ## SYS

  PAL / NTSC TV system selector

- ## MIR

7. Basic Operation

7.1 Installation of Center Mounting Bracket:

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

Support attaching piece

Knob

OPTIONAL MOUNT, NOT INCLUDED

7.2.Installation of U-support Bracket

Angle adjustment screws

Single red wire to positive power supply of DC/10-32V.
Single black wire to GND.
Single brown wire to positive power wire of back-up light.
Single white wire to positive power wire of left light .
Single blue wire to positive power wire of right light .
Single green or yellow wire to any other trigger control

Red
Black
Brown
Blue
White
Green
Yellow

Battery
DC/12V
Battery

Automobile application

Video inputs
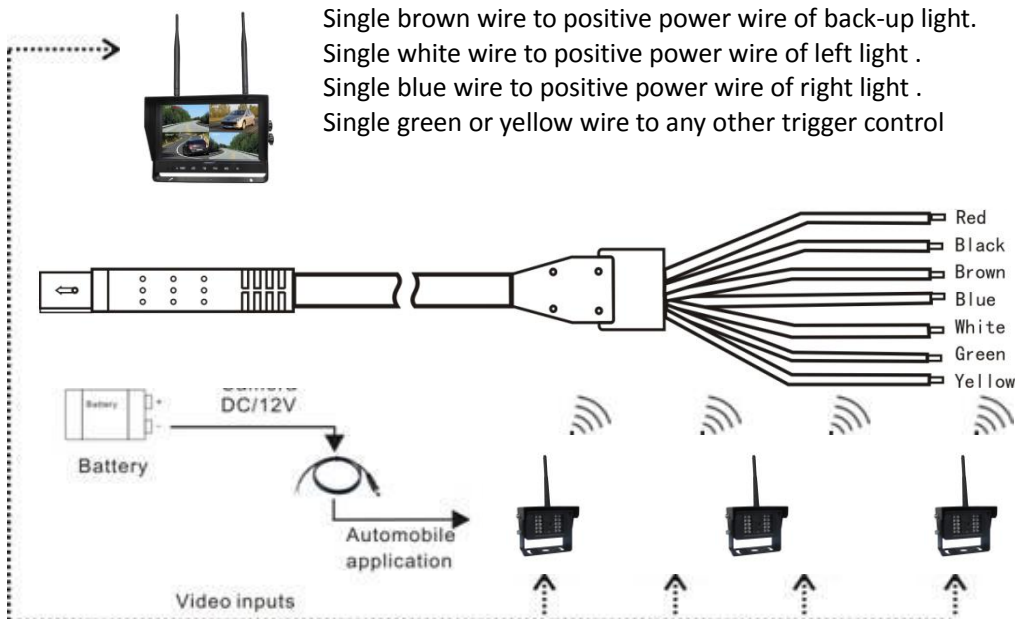
7.3. Reversing Display:

7.3.1. When the green wire is activated, the monitor automatically switches to CAM1.
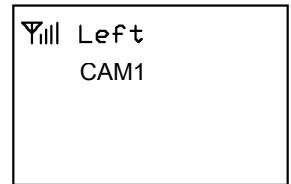
7.3.2. When the white wire is connected to the positive wire of the left turn light , the monitor automatically switches to CAM2(left side camera) when the left turn indicator is activated.
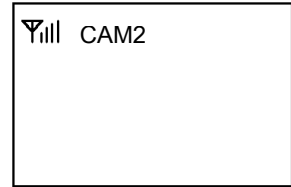
7.3.3. When the blue wire is connected to the positive wire of the right turn light,   the monitor   automatically switches to CAM3 (right side camera) when the right turn indicator is activated.
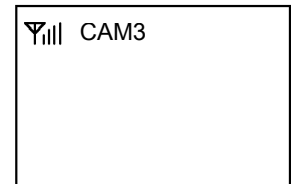
7.3.4. When the brown wire is connected to the positive wire of back-up light, the monitor   automatically switches to CAM4(back-up camera) when the back-up light is turned on. The distancing grid will also be displayed.
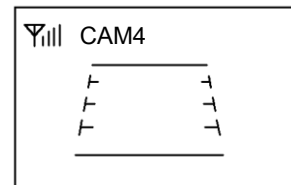
7.3.5. When the yellow wire is connected to the positive wire, the monitor automatically switches to quad or split display. Connection depends on the application request.
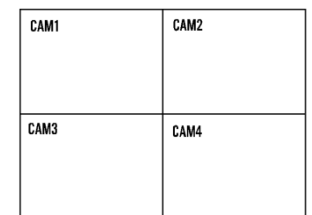
7.4. Volume selection under quad view

7.4.1. Check the column icon on the top right area on single channel. It stands for audio out for the

selected channel.

7.4.2. Press ▲O or ▼O to select the channel for audio out.
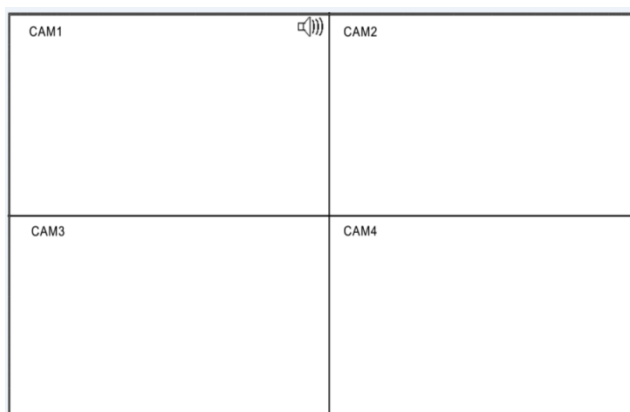
8. Menu

● MENU is allowed for operation under single image mode, not under quad view.

● Press MENU to display the following options and settings:

1. MODE
2. PICTURE
3. MIR-FLIP
4. RECORD
5. AUTOSCAN
6. SYSTEM
7. PLAY
8. PAIRING
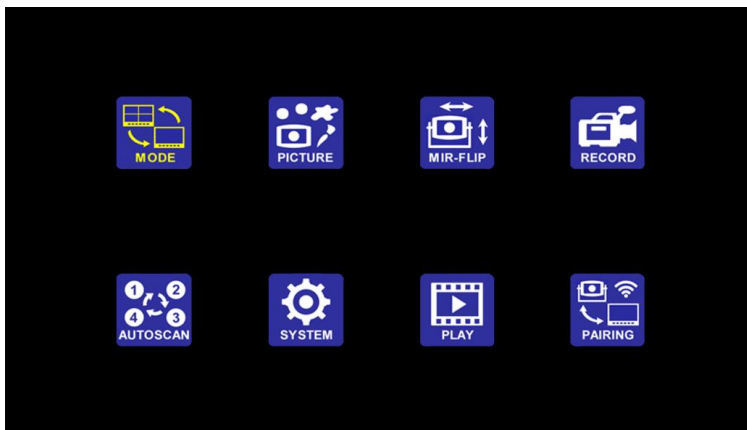
(1) Press [△○] or [▽○] to select MODE. Press CH- to enter the submenu, and press [△○] or [▽○] to select QUAD/H-SPLIT/SPLIT, Press MENU return to main menu
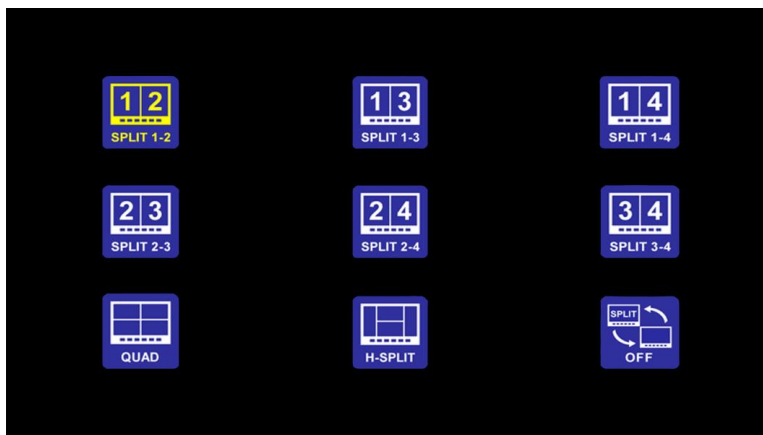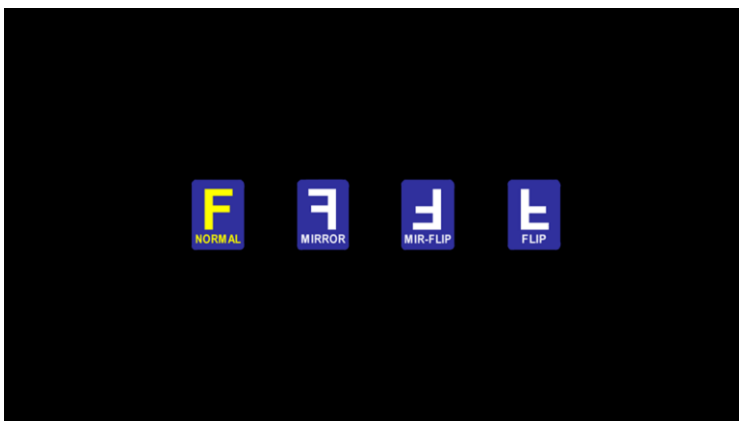

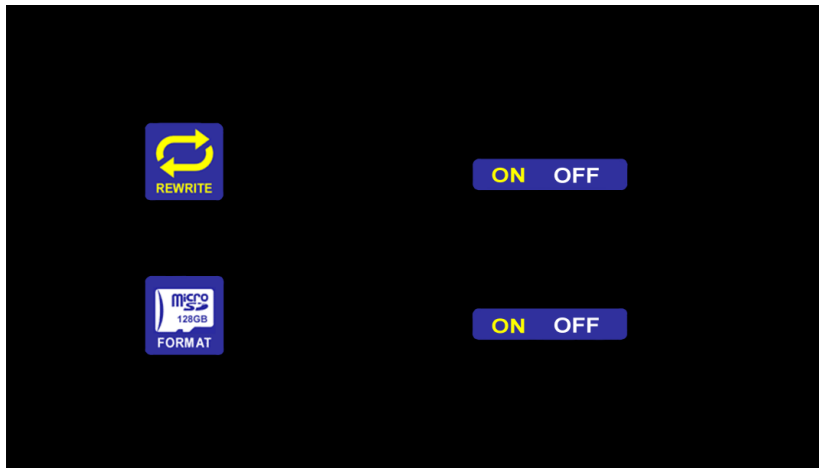(2) Press [△○] or [▽○] to select PICTURE, and press CH- to enter the submenu.

- Press ▲O or ▽O to select BRIGHTNESS / CONTRACT / HUE / VOLUME, and then press CH- to enter the setting accordingly. When the icons turn red, press ▲O or ▽O on menu for selection decreasing or adding. Press CH- to exit the menu. At the submenu, press MENU return to main menu.

(3) Press ▲O or ▽O to select MIR-FLIP, and press CH- to select.

- Press ▲O or ▽O to select NORMAL / MIRROR / MIR-FLIP / FLIP. Press MENU return to main menu

(4) Press ▲O or ▽O to select RECORD, Press CH- to enter.

- Press ⏶ or ⏷ to select REWRITE / FORMAT, and then press CH- to enter the setting accordingly. When the icons turn red, press ⏶ or ⏷ on menu for selection decreasing or adding. Press CH- to exit the menu. At the submenu, press MENU return to main menu.

- REWRITE: When disk is full, the monitor will delete the earliest manual/timing record file one by one, and keep recording.

- FORMAT :Micro SD card must be formatted before being used. All documents in TF card will be lost once users format the disk.

(5) Press ⏶ or ⏷ to select AUTOSCAN, Press CH- to enter.
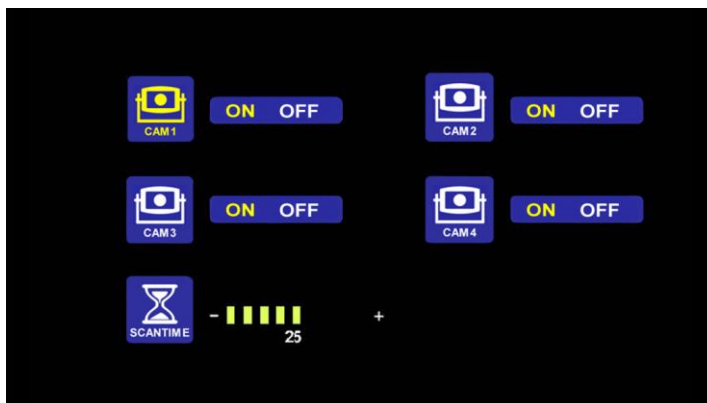
- Press ⏶ or ⏷ to select CAM1/CAM2/CAM3/CAM4/SCANTIME, and then press CH- to enter the setting accordingly. When the icons turn red, press ⏶ or ⏷ on menu for selection decreasing or adding. Press CH- to exit the menu.   At the submenu, press MENU return to main menu.

- If the channel is turned OFF, image of the corresponding camera will not be shown in AUTOSCAN display mode.

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- Setting scale of SCANTIME is 5-45S, with the step time of 5s.

(6) Press ▲O or ▼O to select SYSTEM, Press CH- to enter.
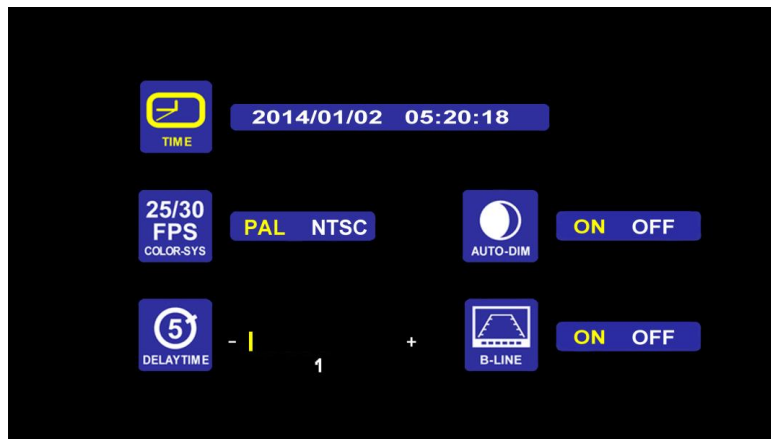
- TIME : Press ▲O or ▼O to select TIME, Press CH- to set. Press ▲O or ▼O for selection decreasing or adding. Press CH- to continue the setting when finishing the previous operation.

- COLOR-SYS: Press ▲O or ▼O to select COLOR-SYS, Press CH- to enter, Press ▲O or ▼O to select NTSC/PAL.

- AUTO-DIM: Press ▲O or ▼O to select AUTO-DIM. Press CH- to enter, and then press ▲O or ▼O to select ON/OFF. When it is on, the monitor will automatically turn darker when it is placed in dark environment for 5s.

- ELETRONIC DISTANCE LABEL: Press ▲O or ▼O to select ELETRONIC DISTANCE LABEL. Press CH- to enter, and press ▲O or ▼O to select ON/OFF, to open or close the electronic distance label. When it is on, the electronic distance label will be displayed in Back channel.

- Setting scale of DELAYTIME is 1-20S, with the step time of 1s.

(7) Press ▲O or ▼O to select PLAY, Press CH- enter.

Free:14.60G Total:14.63G

. .   FOLDER
100953_3   AVI   3MB
100948_1   AVI   64KB
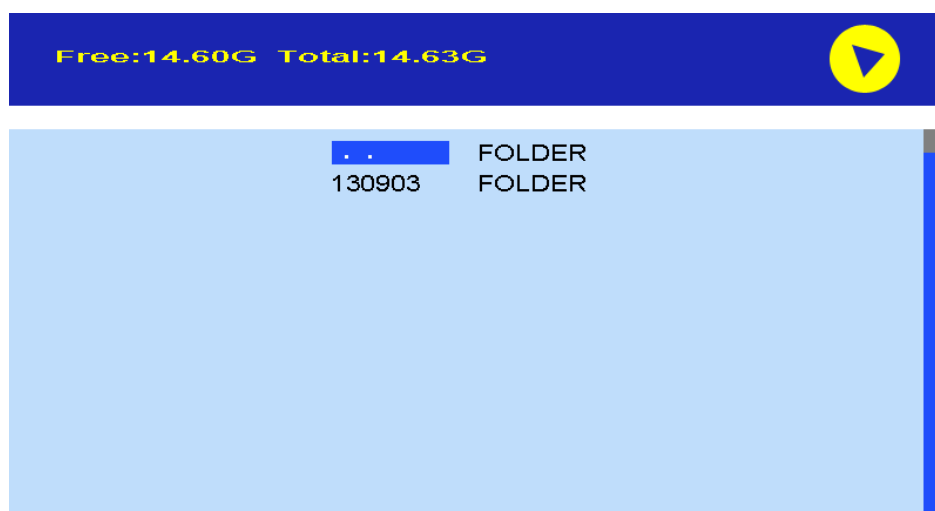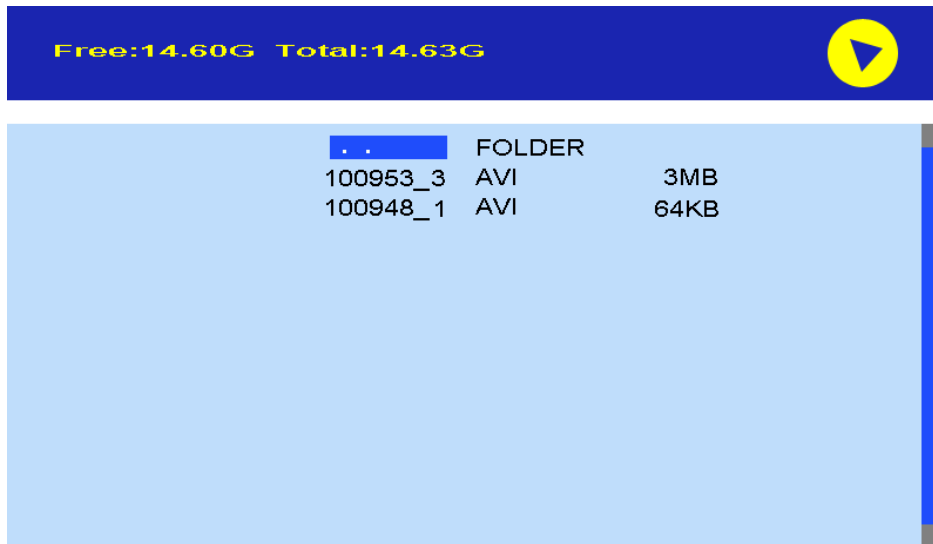
- Press [▲○] or [▽○] to select recording file, Press CH- to enter playback mode.

- Daily recording file can be searched under file folder named in format of YYMMDD. Each file folder includes the video files which are named in format of HHMMSS_Channel Source(1,2,3,4). For example, 130903 stands for year 2013, September 3rd. 100953_3 stands for 10:09:53 am, Cam3. The recording file format is AVI , maximum recording time for every single file will last for 10 minutes.

(8) Press [▲○] or [▽○] to select PAIRING, then press CH- to enter. Or Press CH- for 3 seconds to enter PAIRING.
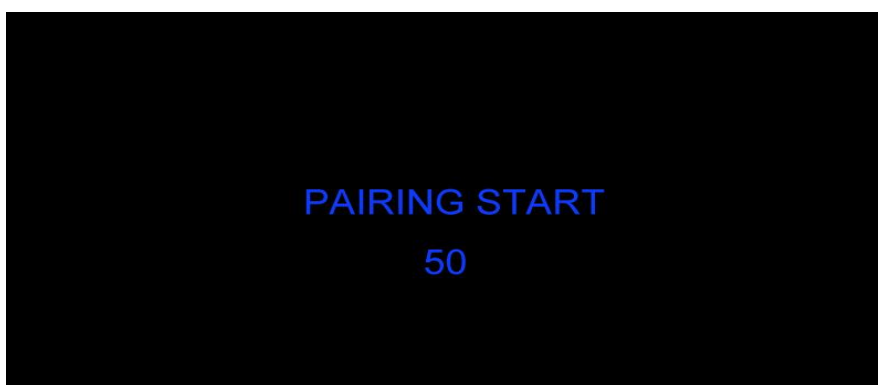
PAIRING START
50

- Auto pairing:

  1. Choose the channel that needs to be set up, then push pairing button on remote or press "ch" for 3 seconds. Then the monitor will display the message "PAIRING START 50" and a counter that counts down from 50 sec to 0 sec.

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2. Within the countdown, power the camera on by connecting the quick disconnects cables behind the camera.
3. The monitor and cameras will synchronize themselves with each other after the camera is powered for 5s.
   For successful auto pairing, the picture appears. If pairing is unsuccessful, the monitor displays the message "No Signal". Repeat the pairing procedure.

● Manually pairing:

1. Choose the channel that needs to be set up, then push pairing button on remote or press "ch" for 3 seconds. Then the monitor will display the message "PAIRING START 50" and a counter that counts down from 50 sec to 0 sec.
2. Press the pairing button on the power-on camera.
3. The monitor and cameras will synchronize themselves with each other.
   For successful auto pairing, the picture appears. If pairing is unsuccessful, the monitor displays the message "No Signal". Repeat the pairing procedure.
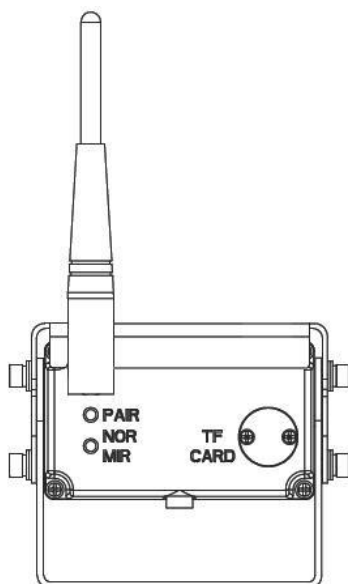
9. Recording Time

(Wireless DVR Camera system only records what is viewed on the screen)

Each camera records in separate files, but all cameras must be being viewed in order for them to be

recorded.

For the recording time of TF cards with different capacities, please refer to the table below. The actual recording time is subject to the operating environment.

SD / MODE	8G	16G	32G	64G	128G
SINGLE (640x480x1)	14h	28h	55h	110h	220h
QUAD	11h	22h	43h	86h	172h

(320x240x4)					
SPLIT (400x480x2)	13h	25h	50h	101h	201h

IMPORTANT NOTE
DVR will only record was is being displayed on LCD. If you are displaying only one camera, only one camera will be recorded on the video file. If you want to record 2,3 or 4 cameras, make sure that you have all 2 to 4 cameras displayed on the LCD

10. Troubleshooting

The symptoms described below do not necessarily mean a failure within the display.
Please check the following items before you initiate request for repair.

Symptoms	Possible Causes/Solutions
No picture, no sound	Improper connection of automobile adapter. Use of un-authorized power supply, switch power source. Power switch is on OFF position.
No signal	Check whether the camera has power supply. Pair the monitor and the camera again. Change power supply for monitor and cameras.
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.

MANUFACTURER
Limited Warranty

What warranty covers: Manufacturer warrants to the original purchaser that the product furnished hereunder shall be free from defects in material and workmanship under normal use and service. In the event of any defect in material or workmanship, the Manufacturer will for twelve (12) months from the date of delivery of the product to purchaser, F.O.B. point of origin replace any defective parts in respect to the product or replace the product with new or like new product at the manufacturers option. In the event of a defect, return the product in tact to the manufacturer (shipping to manufacturer will be paid by purchaser) with evidence of purchase date within the last 12 months of purchase for proper handling of the warranty claim.

What is Not Covered:
- Defects or damage resulting from the use of product(s) in other than the normal and customary manner intended.
- Defective or damage from misuse, accident, water or neglect.
- Scratches or cosmetic damage that does not affect operation of the product.
- Product damage or bodily injury.
- **Contact Manufacturer to purchase an extended replacement warranty**

General Provisions: This warranty is given in lieu of all other express warranties, implied warranties, including without limitation, implied warranties or merchantability and fitness for a particular purpose, are limited to the duration of this limited warranty, in no event shall the Manufacturer or seller be liable for damages in excess of the purchase price of the product

Product Disclaimer: *This system is designed to be an aid and should not replace the need to drive carefully and will not guarantee that driver will not have any accidents while reversing. Under no circumstances will manufacturer, supplier or retailer accept any responsibility or cannot be held liable for any direct or indirect incidental or consequential damage or for injuries that result from installing or using this system or from any backing accident. This device may not be used to violate the privacy rights of others. In no way will manufacturer or its subsidiaries or partners be held responsible for inappropriate use of this product. It is the sole responsibility of the buyer to consult legal counsel for the interpretation of any laws applicable to the area of intended use of these products.*