

# 7" Digital Wireless Camera System

# Owner's manual (VWIC7WR)

### Warranty Information

Thank you for purchasing Vision Works camera system. We have taken great care to provide you with a top quality product. Vision Works comes with a one year warranty that covers defective materials or workmanship, as long as no wiring or parts are modified in any manner. If our product is found to be modified the warranty will be nullified.

Please read and follow the owner's manual for installation and operation of your camera system.

### **Return Policy:**

No merchandise should be returned to Vision Works for credit unless accompanied by a return authorization number from our company. You will receive credit for the full amount of the return, if the merchandise is returned within 30 days of the invoice date. Any merchandise that is not returned within 30 days of the invoice date is subject to a restocking fee of 15%. Contact your Vision Works dealer for return information.

Merchandise that has been special ordered cannot be returned for credit. Non-stock items returned for credit will be subject to vendor's return policy.

#### Important!

- 1. To prevent short circuit, make sure that the system is not plugged in or receiving power while making system connections. In the event of a system short circuit, replacement of the 3A fuse will be required. Fuses are located under the threaded tip of the cigarette lighter, and inside the threaded barrel section of the RED 12volt supply wire. Replacement fuses are not included with this kit.
- 2. To ensure that you do not drain your battery, it may be necessary to disconnect the cigarette adaptor when not in use.
- 3. The camera is completely weatherproof but the monitor is NOT and should NOT be exposed to water. Please ask about weatherproof monitors if you have no cab.

Monitor	Quantity 1
Camera with Magnet	Quantity 1
Main Harness	Quantity 1
Cigarette Lighter Adapter	Quantity 1
Power Lead	Quantity 1
Adhesive Monitor Base	Quantity 1

# **Assembly Instructions**

# Camera Assembly

Camera can be mounted using magnet and attaching hardware. These are the steps required to attach the magnet to the camera.

- 1. Position and align center hole of camera and bracket assembly on top of magnet.
- 2. Install bolt from underside of magnet and secure with flat washer and nut. Tighten this connection.

Tip: Although magnet contains 65lb pull force, it we recommend mounting your camera on a flat surface, and a zip tie be used in addition to fasten the camera as a preventative measure in the event the camera is knocked off.

# Monitor Assembly

- 1. Slotted holes of the universal base mount can be used to position and permanently attach the monitor base to structure.
- 2. Installer must ensure that attaching hardware is suitable to support the weight of monitor and base.
- 3. Once the base has been fastened into position the monitor can be installed. Adjust monitor to desired position and tighten the screws on the side of the monitor
- 4. Optional suction cup mounts are also available through your local dealer.

# **Installation Instructions:**

### Step 1:

Connect *MONITOR* harness to the *MAIN HARNESS*. Ensure arrows are aligned on outer jacket of cable ends. (IF YOU BEND THE PINS IT VOIDS THE WARRANTY). Ref. Picture Below.



### Step 2A(Power Monitor with Cigarette Lighter):

Connect your **MAIN HARNESS** to your **CIGARETTE LIGHTER ADAPTER** as shown below if you plan to receive power through your Cigarette lighter port.





### Step 2B (Hardwire power monitor option):

Hardwire Option: - Connect BLACK wire of **MAIN HARNESS** to ground. Connect RED wire of **MAIN HARNESS** to 12VDC power supply. The green wire is only used if you want the C2 input to automatically display when the vehicle is put into reverse. If this is your preference please attach this wire to the appropriate connection on your vehicle.

Ref. Fig.2

### Step 3 (Powering Your Camera):

Place camera in desired blind spot near a power supply. First connect your power lead to your camera. **Please place protective tape over this connection to ensure no water damage.** Connect BLACK wire of **Power Lead** to ground. Connect RED wire of **Power Lead** to 12VDC power supply. To verify that the system is receiving power, cup your hands over the camera lens, and the LED lights will have a red glow.





### Step 4 (Pairing Continued):

5. You now have 50 seconds to pair your camera. Use a paper clip to click the pairing button on the back of the camera as shown below.



6. If you click the pairing button on the camera after your camera has been paired, you will lose signal and have to re-pair your camera to your monitor.

# **Operating Instructions**



# 2.4G Digital 7" Wireless Color LCD Monitor

Please read this manual thoroughly before operating the device,

and keep it for future reference.

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## 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°C, and the operating temperature is -20~+70 °C. 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.

### Operating Precautions

- 1. The device may be powered by a 12 or 24 volt automotive battery or vehicle electrical system.
- 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.



- 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.



Occasionally, a few highlights or dark spots may occur on the LCD screen. This is a very common phenomenon in active matrix display technology, and doesn't necessarily indicate any defects or faults. Never try to repair this device by yourself. In case of any problems, 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 void the warrantee.

# 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

LCD size	7"
Resolution	800 x 3 (RGB) x 480
Contrast	500:1
Brightness	400 cd/m <sup>2</sup>
Viewing Angle	U: 50 / D: 70, R/L: 70
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	30-120 M
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~+70°C,RH90%
Storage temperature	-30~+80°C,RH90%

# 3. Technical Specifications



**Special Notice** 

All specification are subject to change without notice.



# 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.



## 7.2.Installation of U-support Bracket





Single red wire to positive power supply of DC/10-32V. Single black wire to GND.

screws

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



### 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 **d** or **b** to select the channel for audio out.

CAM1	<b>∽</b> )))	CAM2
CAM3		CAM4

 Yill Left

 CAM1

 Yill CAM2

 Yill CAM3



CAM1	CAM2
CAM3	CAM4

- 8. Menu
  - MENU is allowed for operation under single image mode, not under quad view.
  - Press **M** to display the following options and settings:
    - 1. MODE
    - 2. 3. PICTURE
    - MIR-FLIP
    - 4. RECORD **AUTOSCAN**
    - SYSTEM
    - 5. 6. 7. PLAY
    - 8. PAIRING



(1) Press **d** or **b** to select MODE. Press **O** enter the submenu, and press **d** or to select QUAD/H-SPLIT/SPLIT, Press M return to main menu



(2) Press **d** or **b** to select PICTURE, and press **O** to enter the submenu.



- Press < or <i>to select BRIGHTNESS / CONTRACT / HUE / VOLUME, and then press <i>to enter the setting accordingly. When the icons turn red, press <i>or <i>on menu for selection decreasing or adding. Press <i>ot exit the menu. At the submenu, press <i>main menu.
- (3) Press **d** or **b** to select MIR-FLIP, and press **0** to select.



Press 
 or 
 to select NORMAL / MIRROR / MIR-FLIP / FLIP. Press 
 M return to main menu



- Press < or </li>
   to select REWRITE / FORMAT, and then press 
   to enter the setting accordingly. When the icons turn red, press 
   or 
   on menu for selection decreasing or adding. Press 
   to exit the menu. At the submenu, press 
   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 **d** or **b** to select AUTOSCAN, Press **O** to enter.





or on menu for selection decreasing or adding. Press to exit the menu. At the submenu, press return to main menu.

- If the channel is turned OFF, image of the corresponding camera will not be shown in AUTOSCAN display mode.
- Setting scale of SCANTIME is 5-45S, with the step time of 5s.
- (6) Press **d** or **b** to select SYSTEM, Press **O** to enter.

TIME	2014	/01/02	05:20	0:18		
25/30 FPS color.sys	PAL	NTSC		AUTO-DIM	ON	OFF
DELAYTIME -	I	1	+	B-LINE	ON	OFF

- COLOR-SYS: Press or b to select COLOR-SYS, Press or b to enter, Press or b to select NTSC/PAL.
- ELETRONIC DISTANCE LABEL: Press or to select ELETRONIC DISTANCE LABEL. Press of to enter, and press or 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.



Free:14.60G Total:14.6	3G 💙
130903	FOLDER
Free:14.60G Total:14.6	за
100953_0 100948_	FOLDER 3 AVI 3MB 4VI 64KB

- Press **d** or **b** to select recording file, Press **O** 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 3<sup>rd</sup>. 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.

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.

TF MODE	8G	16G	32G	64G	128G
SINGLE (640x480x1)	14h	28h	55h	110h	220h
QUAD (320x240x4)	11h	22h	43h	86h	172h
SPLIT (400x480x2)	13h	25h	50h	101h	201h

# 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. Power switch is on OFF position.
	Check whether the comercises never events. Deir the meniter and the comerci
No signal	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.