



10" Quad Monitor Camera System

Owner's manual (VWIC104V2 or VWIC104V4)

Warranty Information

Thank you for purchasing a 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.

1.0 Specifications

Monitor Specifications

Model	10.1"
Screen Size	10.1 inch
Aspect Ratio	16:9
Luminance	250cd/m2
Resolution	1024*R.G.B*600
Audio & Video	4 ways video input, 1 way audio input, 4 way trigger
System	PAL & NTSC automatically
Voltage	12V-24V
Language	Multi-language
OSD Menu	Display menu, brightness, color, contrast adjustable
Built-in Speaker	Included
Bracket Accessories	U type bracket
Sunshade	Removable
Mode	Full 2/3/4 images adjustable
Set Up	Mirror for individual image, can set reserve trigger delay in clock settings

Camera Specifications

Model	SONY
Resolution	700 TVL
Lens	3.6 mm
No. of Pins	4
Weatherproof Rating	IP68
Low Temp Rating	-20 C -4 F
Magnet	Yes
Auto Shading	Yes

2.0 Parts Identification

Monitor		Quantity 1
Camera with Magnet		VWIC104V2 Quantity 2 VWIC104V4 Quantity 4


Main Harness		Quantity 1
Video Extension Cable (30ft)		VWIC104V2 Quantity 2 VWIC104V4 Quantity 4
Cigarette Lighter Adapter		Quantity 1
Remote Control (CR2025 battery included)		Quantity 1



Fig. 1

3.0 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. Remove monitor adjustment screws from monitor and bracket assembly.
2. Carefully separate U type bracket from monitor. Installer must ensure that attaching hardware is suitable to support the weight of monitor and base.
3. Install U type bracket to desired monitor position. Once the U type bracket base has been fastened into position the monitor can be installed.
4. Re-Install adjustment screws in their original locations. Monitor can be adjusted to 30 deg. forward or 30 deg. rearward angles by loosening adjustment screws, positioning monitor angle, and retightening monitor adjustment screws. Do not over tighten. Ref. Fig.1

4.1 Installation Instructions:

Step 1:

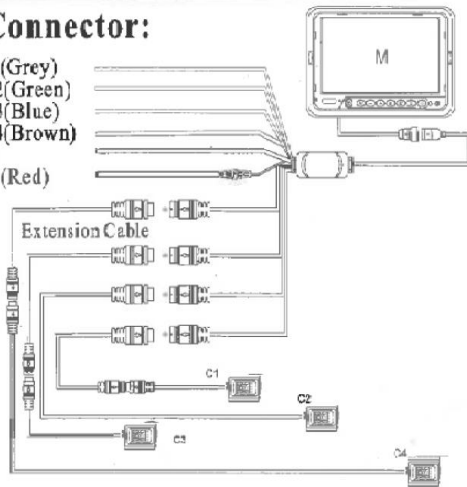
Connect **MONITOR** harness to the **MAIN HARNESS MONITOR INPUT**. Ensure arrows are aligned on outer jacket of cable ends. Turn silver cable connector nut clockwise to secure connection of the cables. (IF YOU BEND THE PINS IT VOIDS THE WARRANTY). Ref. Picture Below & Fig.3



Wiring Diagram

Aviation Connector:

Trigger Cam 1 (Grey)
Trigger Cam 2 (Green)
Trigger Cam 3 (Blue)
Trigger Cam 4 (Brown)
GND (Black)
DC 12V~32V (Red)



Step 2:

Connect **VIDEO EXTENSION CABLE** harness to CH1 input on **MAIN HARNESS**.

Ensure arrows are aligned on outer jacket of cable ends.

Turn silver cable connector nut clockwise to secure the connection of the cables.

Do not over tighten. Pull rubber sleeve membrane over cable connection. Ref. Fig.2

Step 3:

Connect other end of **VIDEO EXTENSION CABLE** harness to **CAMERA** harness cable. Again, ensure arrows are aligned on outer jacket of cable ends. Turn silver cable connector nut clockwise to secure the connection of the cables.

Do not overtighten. When CH1 is active, the word VIDEO will appear on the monitor screen. It will also activate and provide a video feed to the monitor if 12VDC power is supplied to the BROWN trigger wire on the **MAIN HARNESS**.

Ref. Fig.2

Step 4 (Optional Second Camera):

The **MAIN HARNESS** included in this kit contains four video cable inputs. The cable input labelled CH2 can be used to accept a video signal from a second optional camera. CH2 imaging can be selected from the remote or monitor controls. When CH2 is active, the word REVERSE will appear on the monitor screen. It will also activate and provide a video feed to the monitor if 12VDC power is supplied to the GREEN trigger wire on the **MAIN HARNESS**.

Note: A common application for the CH2 video feed is for rear view imaging when in reverse. For CH2 video feed for a reverse application, it is common to connect the GREEN wire to the reverse wire on the vehicle.

Ref. Fig.2

Step 5 (Optional Third Camera):

The **MAIN HARNESS** included in this kit contains four video cable inputs. The cable input labelled CH3 can be used to accept a video signal from a third optional camera. CH3 imaging can be selected from the remote or monitor controls. When CH3 is active, the word LEFT will appear on the monitor screen. It will also activate and provide a video feed to the monitor if 12VDC power is supplied to the BLUE trigger wire on the **MAIN HARNESS**.

Ref. Fig.2

Step 6 (Optional Fourth Camera):

The **MAIN HARNESS** included in this kit contains four video cable inputs. The cable input labelled CH4 can be used to accept a video signal from a fourth optional camera. CH4 imaging can be selected from the remote or monitor controls. When CH4 is active, the word RIGHT will appear on the monitor screen. It will also activate and provide a video feed to the monitor if 12VDC power is supplied to the BROWN trigger wire on the **MAIN HARNESS**.

Ref. Fig.2

**IF YOU REQUIRE AN ADDITIONAL CAMERA OR CABLES, PLEASE CONTACT YOUR
LOCAL VISION WORKS DEALER.**

4.2 Power Cable Connection Installation:

Method 1:

Cigarette Lighter Adapter - system can be powered by connecting the **MAIN HARNESS** CIGARETTE LIGHTER INPUT to the mating connector of the **CIGARETTE LIGHTER ADAPTER**. The cigarette lighter adapter can now be installed into a 12VDC power source. To verify that the system is receiving power, cup your hands over the camera lens, and the LED lights will have a red glow. Ref. Fig.2

Method 2:

Hardwire Option: - Splice BLACK wire of **MAIN HARNESS** to ground. Splice RED wire of **MAIN HARNESS** 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. Ref. Fig.2

5.1 Operating Instructions:



Monitor:

Ref. Fig.3 On previous page

Power Button – press to power on/off monitor and camera system.

Menu Button – press simultaneously to adjust **Picture, System, Volume, Mirror Image, Clock/Trigger Delay**. Menu options will disappear 5 seconds after menu button is pushed. Ref. Fig.3

Picture - use AV button and + / - buttons to adjust brightness, contrast, color, and tint. Picture reset can also be selected to reset picture to factory default settings.

System - use AV button and + / - buttons to adjust language, rotation, and system settings.

Volume - use + / - buttons to adjust monitor volume.

Mirror Image - use AV button to select Mirror option and + / - buttons to activate/deactivate mirror image.

Clock - use AV button to select camera and + / - buttons to increase/decrease delay time of image when the trigger wires are used in the system.

Example: If the CH2 trigger wire was activated with a 12VDC power source, the CH2 image will automatically appear on the monitor. When the power source is taken away from the CH2 trigger wire the clock setting will determine the delay time of the previous camera image to appear.

Single Square Button – when pressed, will display image from CH1 camera input.

Dual Square Button – when pressed, will display images from CH1-2 camera inputs.

Quad Square Button – when pressed, will display images from CH1-4 camera inputs.

Ref Fig 3

Mode Button - each time mode button is pressed, a different image or combination of different images will appear on monitor. Images range from full, 2, 3, or 4, and alternate aspects.

Remote:

Note: Battery Protective Sleeve must be removed prior to use.

Reference Monitor Functions in chapter 4.5 for definitions of Remote Control button commands. Ref. Fig.4

