



# VRBCS300W Wireless Back-Up Camera and Monitor

Dear Customer,  
CONGRATULATIONS. The VRBCS300W Wireless Back-up Camera System, when used as described, will give you years of dependable service in your car, truck, RV, or mini-van. We have taken numerous measures in quality control to ensure that your product arrives in top condition, and will perform to your satisfaction. In the rare event that your VRBCS300W Wireless Back-up Camera System contains a damaged or missing item, does not perform as specified, requires warranty service, or you have an installation problem, **DO NOT RETURN THIS PRODUCT TO THE STORE. PLEASE CALL OUR TOLL FREE NUMBER FROM THE U.S.A. AND CANADA 1-800-445-1797** and ask to speak with a member of our technical service team, or submit your questions by e-mail to customerservice@vr-3.com and a member of our technical service team will respond by e-mail to your questions. Our in-house technical service team will expedite delivery of your part, advise you on installation, or help troubleshoot a problem with you. If your product needs warranty service, our technical service team representative will help you obtain the fastest remedy possible under the warranty.

## Before You Install

Automotive video equipment installations can be difficult at times, even to the most experienced of installation technicians. If you are not confident working with 12 volt DC vehicle wiring, removing and reinstalling interior panels, carpeting, dashboards or other components of your vehicle, please call our Toll-Free Help Line 1-800-445-1797 and our in-house technical service team will answer your installation questions. If you have vehicle specific questions, contact the vehicle's manufacturer, or consider having the VRBCS300W professionally installed.



**This device, as well as all other wireless devices, may be subject to interference. Interference may be caused by cell phones, Bluetooth headsets, Wi-Fi routers, power lines and other various electrical equipment, etc.**

## Parts



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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Installation & Operation

These instructions do not apply to all vehicles. They are only meant as a general guide due to the number of different makes & models.

For vehicle specific questions contact your vehicle's manufacturer.

### MONITOR INSTALLATION

When choosing a location to mount the monitor, make sure the monitor is in an area that will not obstruct your vision while driving. It can be placed on the dashboard, or on the windshield depending on the angle.

#### Choose a Location and Power Cable

1. Temporarily place the monitor stand in the location that you have chosen.
2. If you are using the supplied Monitor Wiring Harness, route the power cable to the vehicle's fuse box. If you are using the 12V adaptor, route the power cable to the vehicle's cigarette lighter socket/12V power outlet. The cable must not interfere with the safe operation of the vehicle.



#### Mounting the Monitor

Before permanently mounting the monitor, clean the mounting area well with isopropyl alcohol, then dry thoroughly.

1. With the two pieces of the oval hook & Loop fastener attached to each other, peel the backing paper from "Loop" side the oval shaped Hook & Loop fastener. (Fig. 1)
2. Next align the Hook & Loop fastener with the bottom of the monitor stand and press firmly to adhere. (Fig. 2)
3. With the "Hook" half of the hook & loop fastener attached to the "Loop" half you just attached to the monitor, peel off the backing paper. (Fig. 3)
4. Then press the monitor stand firmly onto the area you just cleaned. Adhesive reaches maximum strength in 24 hours. Moving the fastener from its original position will weaken the adhesive and may damage the mounting surface. (Fig. 4)

Fig. 1



Fig. 2



Fig. 3

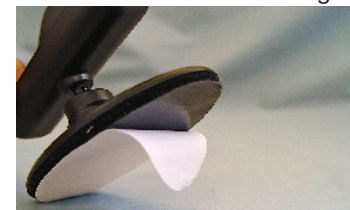


Fig. 4



To maximize the effectiveness of the Hook & Loop fastener, it is recommended that the application be performed under the following conditions:  
Surface temperature should be between 21 C and 38 C (70F and 100F).  
Application below 10C (50F) should be avoided.  
Application should not occur in direct sunlight.  
Mounting should be protected from exposure to direct sunlight for a period of 24 hours.

**NOTE: UNDER EXTREME BRIGHT LIGHT CONDITIONS, THE SCREEN IMAGE MAY TAKE A FEW SECONDS TO STABILIZE. PLEASE WAIT UNTIL THE IMAGE HAS STABILIZED BEFORE BACKING UP.**

## Installation & Operation

### MONITOR POWER CONNECTION

There are two ways to supply the monitor with power, one uses a 12 Volt cigarette lighter adaptor plugged into the vehicle's cigarette lighter socket, and the other uses a wiring harness hard wired to the vehicle's fuse box.

#### Power Cable with 12 Volt Cigarette Lighter Adaptor

1. Insert the small 12 Volt DC plug of the power cable into the left side of the monitor.
2. Plug the 12 Volt cigarette lighter adaptor into the vehicle's cigarette lighter socket.
3. Press the ON/OFF button to turn the monitor ON.



#### Hard Wired to the Fuse Box

1. Disconnect the negative battery cable from the vehicle's negative battery terminal.
2. Connect the Red wire to the 12 Volt +/ACC terminal in the vehicle's fuse box. See vehicle's owner's manual for fuse box diagram.
3. The ground cable must be located on an area of metal on the vehicle's body/firewall that does not have any vehicle components behind it. Sand off any paint to reveal bare metal, this area will be your chassis ground.
4. Drill a hole for the supplied self tapping sheet metal screw. Make sure there are no vehicle components behind where you are drilling the hole.
5. Strip the insulation from the end of the black wire 1.3cm and wrap the wire around the self-tapping sheet metal screw before tightening.
6. Re-connect the negative battery cable.
7. Plug the power cord into the monitor, use the ON/OFF button to turn the monitor ON & OFF.

### MONITOR CONTROLS

**Red LED Power Indicator** - When the monitor is ON the red LED will be lit. If there is power to the monitor, but the monitor is OFF, the red LED will be OFF.

**Power Button** - Press the Power button to turn the display ON, the red LED will be lit to indicate the monitor is ON. Press it again to turn the display OFF, the red LED will turn off.

**Contrast Control** - There are 13 levels of contrast. To adjust the contrast, press the Contrast Control button. Press the button to increase the contrast, at the highest level it will return to the lowest level.

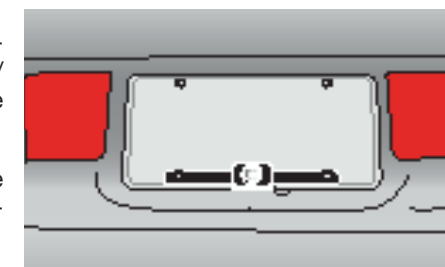
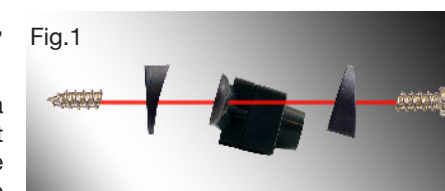
**Brightness** - There are 13 levels of brightness. To adjust the brightness, press the Brightness Control button. Press the button to increase the brightness, at the highest level it will return to the lowest level.



### CAMERA INSTALLATION

You may mount the camera using the license plate's top or bottom mounting bolts or screws, make sure that it's field of view is not obstructed. You may mount the camera on the top or bottom of the license plate. Use the supplied wedge shaped shims to adjust the angle that the camera is mounted.

1. Loosen the license plate bolts/screws, then remove the rear license plate.
2. Insert each license plate bolt into a supplied wedge, then through the bolt holes of the camera, then through the remaining wedges and the license plate. (Fig.1)
3. Align with holes on vehicle and temporarily tighten the license plate bolts/screws. The wedges will angle the camera down.
4. You will need to choose a route for the camera's power cable through the vehicle's body to the reverse light circuit.



## Installation

5. Some vehicle's may have a hole available to pass the wire through, (Fig.3) such as where the license plate light is mounted, or you can drill a hole close to where the power cable is attached to the camera. (Fig.4) Once you have chosen where the cable will enter the vehicle's body, remove the camera. If you are able to use an existing opening, skip the next two steps.

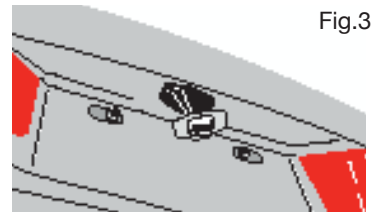


Fig.3 Using an Existing Opening for Access

6. If you are going to drill a hole, choose a location as close to the camera where the power cable comes out of it. Before you drill a hole you MUST CHECK and see WHAT IS BEHIND WHERE YOU ARE DRILLING. If there are any vehicles components, such as electrical parts or fuel system components behind where you are drilling, you must take whatever precaution is necessary not to damage them. Remove the license plate and camera before drilling.

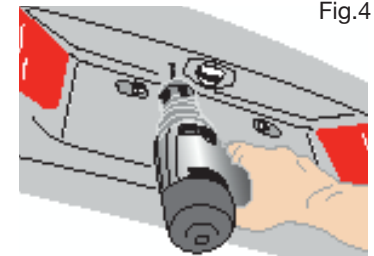


Fig.4 Drilling an Access Hole

7. After you have drilled a hole, insert the supplied grommet (Fig.5), then pass the power cable through the grommet into the vehicle (Fig.6). You must use the grommet to prevent the metal edge of the hole from cutting the power cable.

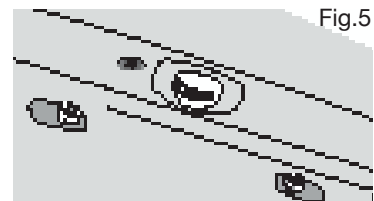


Fig.5

8. Next you'll need to find the vehicle's reverse lights. Turn the vehicle's ignition key to the accessory position, engage the parking brake and put the car in reverse. Look at the vehicle's tail lights to see where the reverse lights are located, they are the white lights.

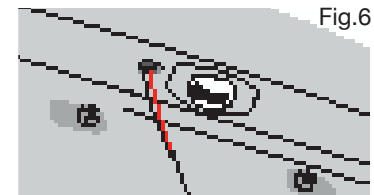


Fig.6

To locate the reverse light's 12V+ wire it will be necessary to gain access to the rear of the vehicle's tail light.

For help locating the vehicle's reverse light circuit contact your vehicle's manufacturer for vehicle specific wiring diagrams.

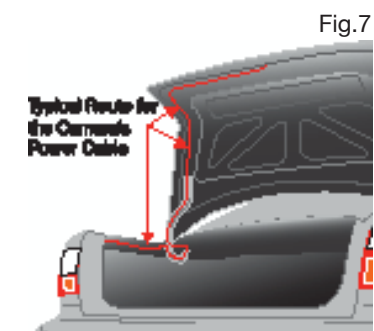


Fig.7

9. Once you have located the reverse light circuit you will have to route the camera's power cable to that location. You must securely fasten the power cable to prevent it from being caught on any vehicle component such as the trunk hinge (Fig.7). Never route the cable on the outside of the vehicle.

10. The reverse light sockets on most vehicles have two wires connected to them. Usually the negative wire is black and the positive wire is a colored wire. If you are uncertain about the wiring, you can use a 12 volt test light available at most auto parts stores to determine which is the positive wire.

- Remove the the reverse light socket from its housing, then remove the blub from the socket.
- Engage the parking brake, turn the ignition key to the ON position, but do not start the vehicle. Put the gear shift in the reverse position.
- Attach the ground wire of the test light to the vehicle ground, then touch one of the socket's contacts with the positive lead.
- If the test light lights up, then the wire corresponding to that contact is the positive wire. If it doesn't light up the opposite wire is the positive wire. Follow the manufacturer's instructions for the safe use of the test light.

## Installation

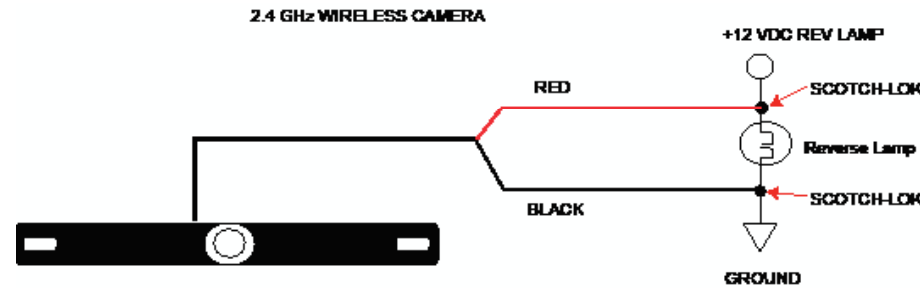
11. After determining which wire is the positive and which is the negative, turn off the ignition key, then remove the battery's negative cable.

12. Following the Scotch-Lok™ instructions section, splice the Red wire using the supplied in-line Scotch-Lok™ wire connectors to the reverse light's positive (+) wire. Use a set of slip joint pliers to squeeze the TAP and insure good connection.

13. Next splice the black wire of the camera's power cable to the reverse light's negative (-) wire or ground.

14. Replace the reverse light bulb, then re-install the light socket. Secure all the wires with cable ties or electrical tape. Re-attach the negative battery cable to the battery.

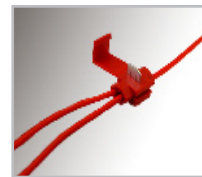
### CAMERA WIRING DIAGRAM



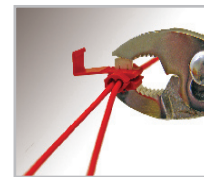
### SCOTCH-LOK® INSTRUCTIONS



Insert the existing wire to be tapped.



Insert the wire to be attached.



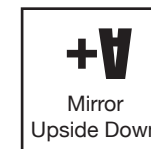
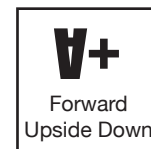
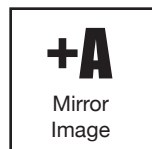
Crimp tap with pliers, then close lock

You do not need to use the Scotch-Lok™ connectors. The camera can be wired directly to the reverse light circuit by stripping the reverse light wires then twisting the camera wires to the exposed reverse light wires. Once connected, wrap with electrical tape. Do not attempt this if you are not knowledgeable with electrical installation practices.

### TESTING THE SYSTEM

- Reattach the vehicle's negative battery cable.
- Turn the ignition key to the accessory position, do not start the vehicle.
- Engage the parking brake, then put the shifter in the reverse position.
- Turn the monitor ON by pressing the ON/OFF button on the monitor.
- Look at the monitor, if the image does not match your rear view mirror press the Image Orientation button on the monitor to correct the image.

There are four different views for the monitor, each time the button is pressed the image will change.



These different views allow you to mount the camera and/or monitor either right side up or upside down and still display the image correctly on the monitor. The image displayed should match your rear view mirror.

After testing the unit and you are satisfied with the route you have chosen for the cabling, you must permanently install it. Fully tighten the license plate bolts. Route all wires behind interior panels or under carpeting so they are hidden. Use supplied cable ties to neatly gather any excess wire.

## FCC & Industry Canada Information

WARNING: Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules, and applicable Industry Canada regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of device. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate this equipment.

(For Canada)

This Class A/B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.



## Limited Warranty

Virtual Reality Video Labs® warrants, to the original purchaser, that its products are free from defects in material and workmanship for 30 days from the date of original purchase, as part of our commitment to product excellence. Virtual Reality Video Labs® and/or its affiliates routinely improves the designs, materials or production methods of its existing products. Because it is impractical to publicize all changes in every product, we reserve the right to make such changes without notice.

Disclaimer: Virtual Reality Video Labs® and/or its affiliates, including without limitation Roadmaster® (USA) Corp., does not guarantee or promise that the user of our Back-Up Cameras will not be in an accident or otherwise not collide with an object and/or person. Our Back-Up Cameras are not intended in any way to be a substitute for careful and cautious driving or for the consistent adherence to all applicable traffic laws and motor safety regulations. These products are not intended to be a substitute for rearview mirrors or for any other motor vehicle or boat equipment mandated by law. Even when properly installed, our Back-Up Cameras have a limited field of vision and do not provide a comprehensive view of the rear area of the vehicle. You should always look around outside your vehicle and use your mirrors to confirm rearward clearance.

Virtual Reality Video Labs® and/or its affiliates, including without limitation Roadmaster® (USA) Corp., shall have no responsibility, liability or the like for damage and/or injury resulting from accidents occurring with vehicles having the Back-Up Camera installed. Except as specifically set forth herein, no warranty or representation, express or implied, is made as to the Back-Up Cameras. Except as expressly modified herein, Virtual Reality Video Labs® and/or its affiliates, including without limitation Roadmaster® (USA) Corp., specifically disclaims, without limitation, any statutory warranties, implied warranty of merchantability or fitness for a particular purpose. Virtual Reality Video Labs® and/or its affiliates, including without limitation Roadmaster® (USA) Corp., is not responsible for a user's intended or actual use of the Back-Up Cameras or results deriving therefrom. In no event, shall Virtual Reality Video Labs® and/or its affiliates, including without limitation Roadmaster® (USA) Corp., have any liability for any losses (whether direct or indirect, in contract, tort or otherwise) incurred in connection with the Back-Up Camera, including but not limited to damaged property, injury and/or loss of life. Neither shall Virtual Reality Video Labs® and/or its affiliates, including without limitation Roadmaster® (USA) Corp., have any liability for any decision, action or inaction taken by any person in reliance on the Back-Up Camera, or for any delays, inaccuracies and/or errors in connection with the Back-Up Camera and its functioning.

### CONDITIONS OF WARRANTY:

If during the 30 day warranty period your new product is found to be defective, Virtual Reality Video Labs® will repair such defect, or replace the product, without charge for parts or labor subject to the following conditions:

- All repairs must be performed by Virtual Reality Video Labs® and/or its affiliates in Eatontown, New Jersey.
- The equipment must not have been altered or been damaged through negligence, accident, or improper operation.
- The replacement of parts are exempted from this warranty when replacement is necessary due to normal wear and tear.
- All warranty claims must be accompanied by a copy of the sales receipt or bill of sale.
- Repair or replacement parts supplied by Virtual Reality Video Labs® under this warranty are protected only for the unexpired portion of the original warranty.
- In the case of car stereos, this warranty does not extend to the elimination of car static or motor noise; correction of antenna problems; costs incurred for the removal or reinstallation of the product; damage to tapes, speakers, accessories or car electrical systems.
- Virtual Reality Video Labs® will not be responsible for any charge incurred for installation.

### OWNER'S RESPONSIBILITIES:

Virtual Reality Video Labs® will make every effort to provide warranty service within a reasonable period of time. SHOULD YOU HAVE ANY QUESTIONS ABOUT SERVICE RECEIVED, OR IF YOU WOULD LIKE ASSISTANCE IN OBTAINING SERVICE, PLEASE CALL TOLL FREE 1-800-445-1797, 8:30am - 4:30pm EST.

- In order to provide you with the proper warranty service, we request that you adhere to the following procedure:
- Include a copy of your sales receipt or bill of sale with your unit when it is returned for warranty service.
  - If it is necessary to return your product for service, please return it securely packed, preferably in the original shipping carton, and freight and insurance prepaid to the following address: Virtual Reality Video Labs, Service Department, 41 James Way, Eatontown, New Jersey 07724.
  - Please include a detailed explanation of the problem you are having.
  - If your product is found by Virtual Reality Video Labs® to have a defect in material or workmanship, within the warranty period, it will be repaired or replaced at no charge and returned to you prepaid. Where permitted by law Virtual Reality Video Labs® liability shall be limited to that set forth in this warranty. This warranty shall be the exclusive remedy of the purchaser.

Virtual Reality Video Labs® makes no other warranty of any kind, expressed or implied; and all implied warranties, are hereby disclaimed by Virtual Reality Video Labs® and excluded from this warranty. Virtual Reality Video Labs® and/or its affiliates, the manufacturer, distributor and seller shall not be liable for any injury, loss or damage, incidental or consequential, arising out of the use or intended use of the product.