



VRBCS300W Back-Up Camera and Monitor

Dear Customer,
CONGRATULATIONS. The VRBCS300W Vehicle Reverse Gear Video Camera, 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 Vehicle Reverse Gear Video Camera 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 electrical 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.



GIVE US A CALL, WE'LL HELP YOU INSTALL.

PLEASE DO NOT RETURN PRODUCT TO STORE.
Visit us on the WEB

www.vr-3.com

For Information and Technical Assistance,
Call Toll-Free in U.S.A. and Canada.

1-800-445-1797

Parts

- 1 - Back Up Camera
- 1- TFT LCD Monitor
- 1 - Monitor Mounting Stand
- 1 - Monitor Power Cable with 12 Volt Adaptor
- 1 - Monitor Power Cable with 12V+, 12V-, and Remote Wire
- 2 - Sets of Velcro
- 2 - License Plate Screws
- 2 - License Plate Bolts & Nuts
- 4 - Wedge Shaped Mounting shims
- 4 - In-Line Wire Connectors
- 1 - Sheet Metal Screw
- 1 - Grommet
- 6 - Cable ties

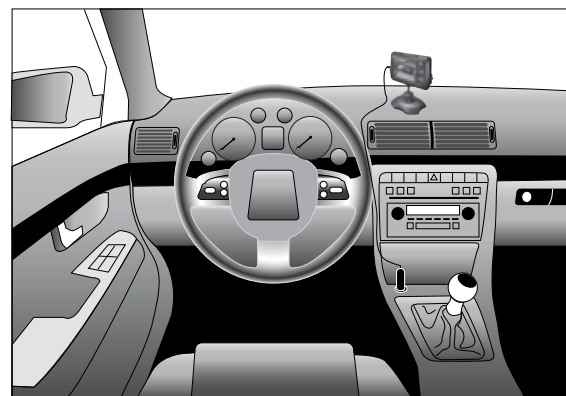
Installation

These instructions do not apply to all vehicles. They are meant as only 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.

1. Temporarily place the monitor stand in the location that you have chosen. Make sure the driver's vision is not obstructed in any way or any of the vehicle's
2. Route the monitor's power cable to the vehicle's fuse block/box or cigarette lighter socket/12V power outlet depending on the cable you are using
3. If you are satisfied with the location of the monitor and the cable route you have chosen, attach the monitor or stand with the supplied Velcro.



Using the Monitor with the 12 Volt Cigarette Lighter Adaptor

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.

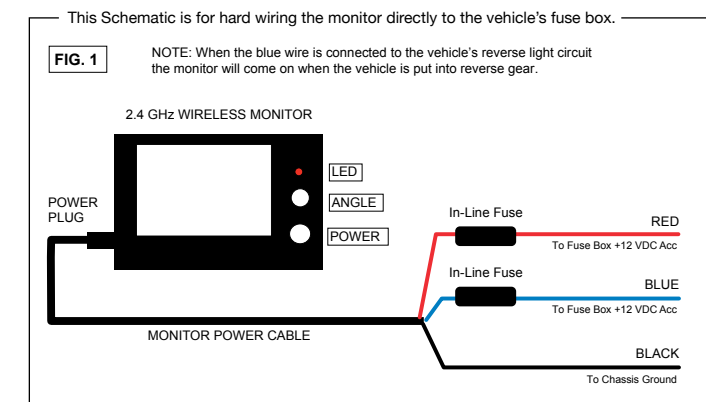
12 Volt Cigarette Lighter Adaptor Using the Monitor's ON/OFF Button

1. Choose a route for the cable from the monitor to the cigarette lighter socket. It can be a direct route with the wire exposed or a route around the dashboard hidden under the vehicle's interior trim. When using a direct route for the power cable make sure the power cable is secured and will not interfere with the operation of the vehicle. When routing the power cable behind the vehicle's interior trim be careful not to cut the wire on and sharp edges or pinch and damage the cable when re-installing the trim.
2. Plug the end of the power cable into the monitor,
3. Plug the 12 Volt cigarette lighter adaptor into the cigarette lighter socket.
4. Press the ON/OFF button to turn the monitor.

Hard Wired to Fuse Box Using the Monitor's ON/OFF Switch (Fig. 1)

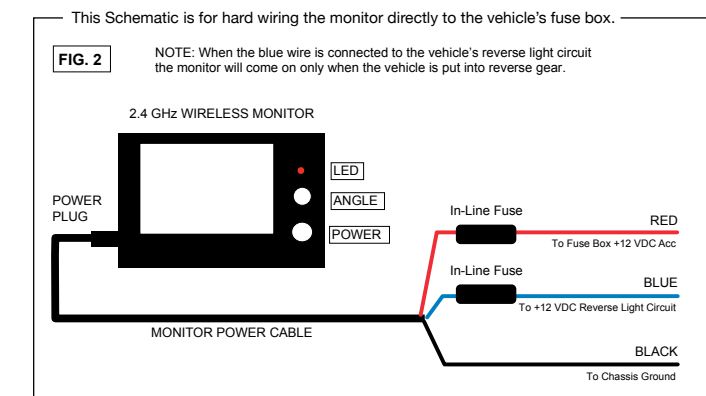
1. Remove the negative battery cable from the vehicle's negative battery terminal.
2. Remove the fuses from both of the in-line fuse holders.
3. Connect the Red wire to the 12 Volt +/ACC terminal in the vehicle's fuse box. See vehicle's owner's manual for fuse box diagram.
4. For the ground cable locate 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.
5. Drill a hole for the supplied self tapping sheet metal screw. Make sure there are not any vehicle components on the other side of where you are drilling the hole.
6. Attach the grounding cable to the chassis ground with the self-tapping sheet metal screw.
7. Plug the power cord into the monitor.
8. Press the ON/OFF button to turn the monitor.

Installation



Hard Wired Using Vehicle's Reverse Light Circuit for ON/OFF (Fig. 2)

1. Remove the negative battery cable from the vehicle's negative battery terminal.
2. Remove the fuses from both of the in-line fuse holders.
3. 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.
4. For the ground cable locate 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.
5. Drill a hole for the supplied self tapping sheet metal screw. Make sure there are not any vehicle components on the other side of where you are drilling the hole.
6. Attach the grounding cable to the chassis ground with the self-tapping sheet metal screw.
7. Next you will need to locate the vehicle's reverse light circuit and splice the blue wire into it using the supplied in-line wire connectors. For help locating the vehicle's reverse light circuit contact your vehicle's manufacturer for vehicle specific wiring diagrams.



MONITOR CONTROLS



WARNING: Cell Phones and Blue Tooth Products Can Cause Interference.

Installation

CAMERA INSTALLATION

You may mount the camera using the license plate's top or bottom mounting bolts or screws. When mounting the camera you must make sure that its field of view is not obstructed. Depending on the vehicle, you may mount the camera on the top or bottom of the license plate. To adjust the angle that the camera is mounted to the vehicle use the supplied wedge shaped shims.

1. Remove the license plate bolts/screws from the rear license plate. (Fig.1)
2. Put the license plate bolts through the holes on the camera's mounting bracket.
3. Place the supplied wedges over the bolts, then put the bolts through the holes on the license plate that will line up with the holes on the vehicle. The wedges should angle the camera down. (Fig.2)
4. Temporarily tighten the license plate bolts/screws.
5. The camera's power cable will have to be routed through the vehicle's body to an area where the reverse light circuit is. Some vehicle's may have a hole available to pass the wire through, you can use an existing opening (Fig.3) like where a license plate light is mounted, or drill a hole close to where the power cable is attached to the camera. (Fig.4)

Fig.1

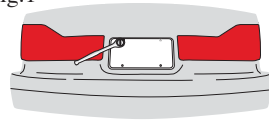


Fig.2

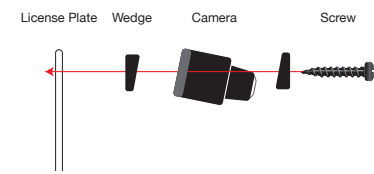
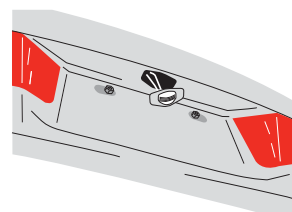
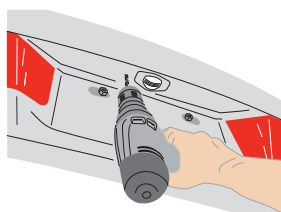


Fig.3



Using an Existing Opening for Access

Fig.4



Drilling an Access Hole

6. If you are able to use an existing opening tighten the license plate bolts, then route the power cable into the vehicle. Skip the next two steps.
7. 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.
8. 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

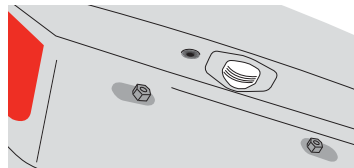
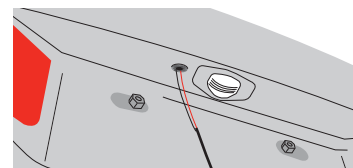


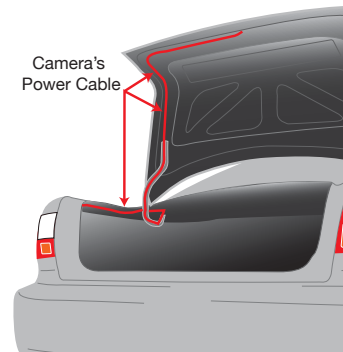
Fig.6



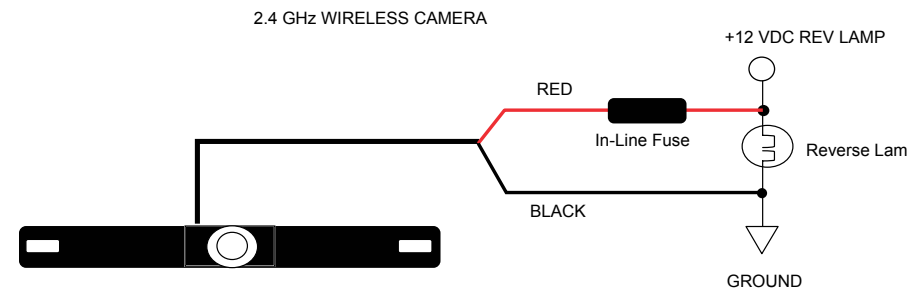
9. Next you'll need to find the vehicle's reverse lights. Turn the vehicle's ignition key to the accessory position, engage the parking brake and put the car in reverse. Look at the vehicle's tail lights to see where the reverse lights are located. To locate the reverse light's 12V+ wire it will be necessary 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.

Installation

10. 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. Never route the cable on the outside of the vehicle.
11. The sockets for most vehicle's reverse lights have two wires connected to them. One is positive and one is negative, to determine which is positive you will need at least a 12V test light available at any auto parts store, or a multi-meter. Using the test light, attach the negative lead to a spot on the vehicle that has a chassis ground, with the reverse light on touch the other lead to one of the wires on the reverse light socket. When you touch one of the wires and the test light comes on that wire is the positive wire, if the test light doesn't come on, that wire is the negative wire.
12. After determining which wire is the positive and which is the negative, turn off the ignition key, then remove the battery's negative cable.
13. Following the Scotch-Lok® instructions, splice the one end of the in-line fuse holder using the supplied in-line Scotch-Lok® wire connectors to the reverse light's positive(+) wire, then splice the red wire of the camera's power cable to the other end of the in-line fuse holder.
14. Next splice the black wire of the camera's power cable to the reverse light's negative(-) wire. Secure all wires with cable ties or electrical tape.

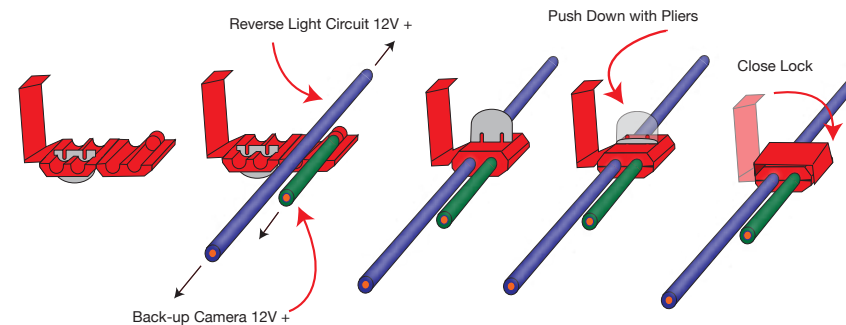


CAMERA WIRING DIAGRAM



NOTE: On newer vehicles that have their lights ON at all times you may splice the camera into the license plate light circuit. The camera will come on when the vehicle is started when wired this way.

SCOTCH-LOK® INSTRUCTIONS

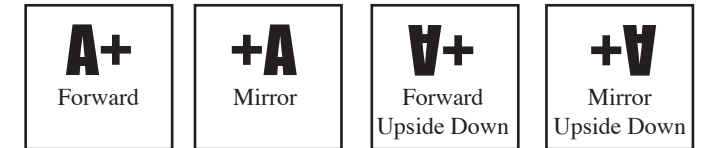


Installation

TESTING THE SYSTEM

1. Reattach the vehicle's negative battery cable.
2. Reinstall the in-line fuses.
3. Turn the ignition key to the accessory position, do not start the vehicle.
4. Engage the parking brake, then put the shifter in the reverse position.
5. Turn the monitor ON by pressing the ON/OFF button on the monitor.
6. Look at the monitor, if the image does not match your rear view mirror press the top 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.

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 all excess wire.



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For Information and Technical Assistance,
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1-800-445-1797

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.

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:
1. All repairs must be performed by VIRTUAL REALITY VIDEO LABS® and/or its affiliates in Eatontown, New Jersey.
 2. The equipment must not have been altered or been damaged through negligence, accident, or improper operation.
 3. The replacement of parts are exempted from this warranty when replacement is necessary due to normal wear and tear.
 4. All warranty claims must be accompanied by a copy of the sales receipt or bill of sale.
 5. Repair or replacement parts supplied by VIRTUAL REALITY VIDEO LABS® under this warranty are protected only for the unexpired portion of the original warranty.
 6. 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.
 7. 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:

1. Include a copy of your sales receipt or bill of sale with your unit when it is returned for warranty service.
2. 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.
3. Please include a detailed explanation of the problem you are having.
4. 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.