



VSW120 12" Subwoofer

Read First!

Dear Customer,
CONGRATULATIONS. The VSW120 Subwoofer, 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 VSW120 Subwoofer 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 (800-445-1797)** and ask to speak with a member of our technical service team, or submit your questions by e-mail our web site 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.

Specifications

- 12" Embossed Polypropylene Cone
- 26.5 oz. Magnet Weight ±10%
- Black Rubber Surround
- 400 Watts Maximum Peak Power
- 40 watts RMS per Voice Coil
- 35 to 2000 Hz Frequency Response
- 2" ASV, Dual Voice Coil
- Impedance 4 Ohms +/- 15%
- Sensitivity 89db 1W/1M Minimum
- Quick Connect Terminals (Spade Lug Type)

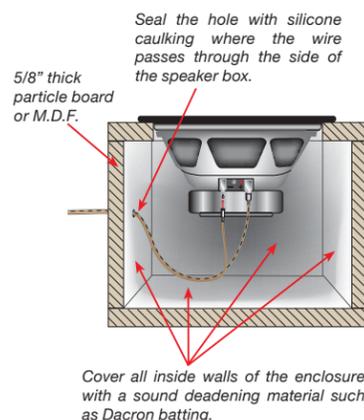
Before You Install

Automotive audio equipment installations can be troublesome 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 (800) 445-1797 and our in-house technical service team will answer your installation questions.

Most car stereos do not have enough power to drive separate subwoofers, if your mobile auto audio system does not have a separate amplifier installed, you will most likely need to install one.

Before permanently installing the VSW120 speakers in your car, connect the wires to the speakers according to your audio systems installation manual, in the approximate location you will install them. If you are satisfied with the location proceed with the permanent installation.

If you are building your own sealed box enclosure, it should have a volume of 1.5 to 2.0 cubic feet, and made with a minimum of 5/8" thick particle board or M.D.F.. Make sure that you screw and glue it together for a proper seal, caulk all seams, and joints with silicone rubber caulking. The inner walls of the enclosure should be covered with a sound absorbing material. Maintain polarity of the amplifier and speaker for proper phase alignment. This insures the VSW120 operates at maximum efficiency.



Tools Needed to Install

- Nail Set/Center Punch
- Phillips Screwdriver
- Marker/Pen
- Wire Cutter
- Safety Glasses
- Hammer
- Electric Drill with 1/16" bit
- Electrical Tape

Installation



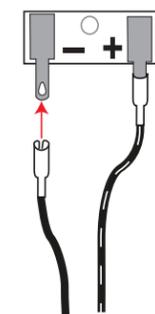
Speaker wire of 18 Gauge to 12 Gauge may be used with the VSW120C. You can purchase speaker wire with spade lug type female disconnects pre-installed on one end.

Wiring

To attach speaker wires (not included) with female quick connects (spade lug type) to the speaker terminals. Push the female quick connects (spade lug type) onto the terminals. Maintain proper polarity by attaching the Positive Wire (+) to Positive Terminal (+) and the Negative Wire (-) to Negative Terminal (-).

If the female quick connects can be easily pulled off, they can be tightened a little bit by lightly squeezing them with a pair of pliers. Do not flatten them completely.

Subwoofer Terminals



Wires from Amplifier

Installing in a Enclosure



The VSW120 is designed to give you optimum bass performance when installed in a sealed speaker enclosure.

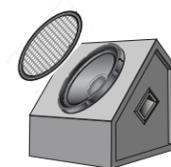
Before installing in an enclosure use the VSW120 as a guide to mark the enclosure for pilot holes. When you have marked the pilot hole positions drill them with a bit that is smaller than the screws you will use to secure the speaker to the enclosure.



Attach the positive (+) and negative (-) wires found inside the enclosure box to the VSW120 terminals. Attach Positive (+) to positive (+), and negative (-) to negative (-).



Place the subwoofer into the opening of the enclosure. Then align the screw holes of the subwoofer with the pilot holes that you drilled. Tighten the screws.



Place a subwoofer grill (optional) over the subwoofer, then fasten the subwoofer grill in place. Attach wires from audio source to the terminals on back of the enclosure.

Give Us A Call, We'll Help You Install



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

www.vr-3.com

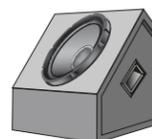
For Information and Technical Assistance,
Call Toll-Free in U.S.A. and Canada.

1-800-445-1797

Location Of Subwoofers

Recommendations for Positioning the VSW120 in Your Vehicle:

- Cars: Hatch Back or Trunk
- SUVs: & Mini Vans: Cargo Area
- Pick-up Trucks: Behind Front Seat



All auto audio components must be securely mounted. Driving styles and road conditions such as sudden stops, sharp curves, and bumpy roads may cause unsecured items to move about the vehicle, causing physical injuries to vehicle occupants and/or vehicle damage.

Frequently Asked Questions

What if there is no sound?

1. Your stereo may have a blown fuse. Replace fuse with the same amperage and style.
2. You may have improper wiring. Refer to the wiring guide that came with your stereo/amplifier. Check all wires for a secure connection.

What if the sound volume is low?

Your stereo may not have enough power, you may have to install an amplifier to drive a subwoofer.

Why do I have a whining noise coming from the subwoofer?

You may have poor filtering of your alternator. If that is the case, then you may need to add an alternator filter to the power lead.

Why do I have odd sounding noises coming from the subwoofer?

You may have corroded battery terminals and/or a weak battery. If the terminals on the battery are corroded, clean them; then check the sound. If the sound system is still making noises check battery strength. If it is low recharge or replace the battery.

Notes

Limited Warranty

VIRTUAL REALITY VIDEO LABS® products are designed and manufactured to provide a high level of trouble-free performance. 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 Sound Labs® makes no other warranty of any kind, expressed or implied; and all implied warranties, are hereby disclaimed by Virtual Reality Sound Labs® and excluded from this warranty, Virtual Reality Sound Labs®, 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