

## JL AUDIO LIMITED WARRANTY (USA)

### Evolution Speaker Systems

JL AUDIO warrants these speakers (and crossover networks, where applicable) to be free of defects in materials and workmanship for a period of **ninety (90) days** from the original date of purchase. The warranty term is extended to **one (1) year** if installation is performed or approved by an authorized JL AUDIO dealer (proof of installation or approval required on purchase receipt).

This warranty is not transferrable and applies only to the original purchaser from an authorized JL AUDIO dealer. Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction, JL AUDIO will, at its discretion, repair or replace the defective product with new or remanufactured product at no charge.

Damage caused by the following is not covered under warranty: accident, misuse, abuse, product modification or neglect, failure to follow installation instructions, unauthorized repair attempts, misrepresentations by the seller. This warranty does not cover incidental or consequential damages and does not cover the cost of removing or reinstalling the unit(s). Cosmetic damage due to accident or normal wear and tear is not covered under warranty.

Any applicable implied warranties are limited in duration to the period of the express warranty as provided herein beginning with the date of the original purchase at retail, and no warranties, whether express or implied, shall apply to this product thereafter. Some states do not allow limitations on implied warranties, therefore these exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### **If you need service on your JL AUDIO product:**

All warranty returns should be sent to JL AUDIO freight prepaid through an authorized JL AUDIO dealer and must be accompanied by proof of purchase (a copy of the original sales receipt.) Direct returns from consumers or non-authorized dealers will be refused unless specifically authorized by JL AUDIO with a valid return authorization number. Warranty expiration on products returned without proof of purchase will be determined from the manufacturing date code. Coverage may be invalidated as this date is previous to purchase date. Return only defective components. If one speaker fails in a system, return only that speaker component, not the entire system. Non-defective items received will be returned freight-collect. Customer is responsible for shipping charges and insurance in sending the product to JL AUDIO. Freight damage on returns is not covered under warranty.

#### **For Service Information in the U.S.A. please call:**

JL Audio customer service: (954)443-1100  
during normal business hours (Eastern Time)

#### **JL Audio, Inc**

10369 North Commerce Pkwy.  
Miramar, FL 33025

(do not send product for repair to this address)

#### **International Warranties:**

Products purchased outside the United States of America are covered only  
by that country's distributor and not by JL Audio, Inc.



## **VR650-CXi** 6.5-inch (160 mm) Coaxial Loudspeakers

### owners manual

*Thank you for choosing JL Audio Evolution VR Coaxials for your automotive sound system. With proper installation, your new speakers will deliver years of listening pleasure.*

*We strongly recommend that you have your new Evolution speakers installed by your authorized JL Audio dealer. The installation professionals employed by your dealer have the necessary tools and experience to disassemble your interior panels, install your new speakers and reassemble your vehicle properly. Also, keep in mind that your warranty coverage doubles to 2 years if your system is installed by your authorized JL Audio dealer. If you prefer to perform your own installation, please read this instruction manual completely before beginning the process.*



## VR650-CXi SPECIFICATIONS:

**Woofers:** Injection-molded, mica-filled, polypropylene cone body; 1-inch (25mm) voice coil, flat-profile/symmetrical-roll spider; butyl rubber surround.

**Tweeters:** 1-inch (25 mm) treated textile soft dome tweeter; neodymium magnet, ferrofluid cooled and damped.

### Continuous Power Handling:

60 Watts (RMS Method)

**Frequency Response:** 59 Hz - 22 KHz ( $\pm 3$  dB)

**Efficiency @ 1W/1m:** 89.5 dB

**Nominal Impedance:** 4 ohms

### Included Components and Parts:

- Two VR650-CXi 6.5-inch (160 mm) Coaxial loudspeakers
- Two Metal Grilles and Grille Trays
- Butyl adhesive putty for grilles
- Eight #8 x 1 1/4 inch (30 mm) sheet metal screws
- Eight Mounting Clips
- Two 5.2 mm female crimpable connectors
- Two 2.8 mm female crimpable connectors

## GETTING STARTED:

- Turn off the audio system. It is also advisable to disconnect the negative (-) terminal of your vehicle's battery whenever performing installation work.
- Before cutting, drilling or inserting any screw, check clearances on both sides of the planned mounting surface. Also check for any potential obstacles, such as window tracks and motors, wiring harnesses, etc. Check both sides of the car; many cars are not symmetrical!
- Always wear protective eyewear.

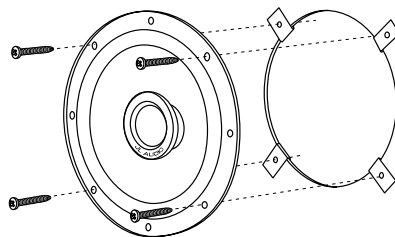
## INSTALLING YOUR VR650-CXi COAXIALS IN FACTORY LOCATIONS:

If you will be using the factory speaker wires, it may be necessary to change the terminations. This may be accomplished by using an adaptor plug or simply by cutting the factory connector off and using the supplied crimp connectors to terminate the speaker wires. The large connector is for the positive terminal and the small connector is for the negative terminal of each VR650-CXi. You may also choose to run new speaker wires...refer to the custom installation section for details. Whichever method you choose, observe correct polarity in your connections. If you are unsure about any of these issues, contact your JL AUDIO dealer for installation assistance.

Your new speakers have been designed to install, without modifications, into most vehicles that accept a 6.5-inch (160 mm) speaker. Most factory 6.5-inch speakers use four mounting screws which will line up with the mounting holes on your VR650-CXi speakers. Others use a 3-hole mounting system which is accommodated by a separate set of mounting holes on the frames of your VR650-CXi speakers.

It is absolutely vital that the speaker frame fits into the mounting hole cleanly. This must be checked prior to tightening the screws. Do not force the frame into a hole that is too small! Do not tighten the speaker onto an uneven surface! This will damage your speakers. The speaker should also fit so that no air leaks around the mounting flange. Air leaks will cause a severe degradation in sound quality. Seal any air leaks with silicone, rope caulk or similar sealant material.

**Install as shown in the diagram here. Use the supplied mounting clips unless the factory holes already feature threaded inserts. Hand-tighten the screws evenly to avoid bending the speaker frame!**



## INSTALLING YOUR VR650-CXi COAXIALS IN CUSTOM LOCATIONS:

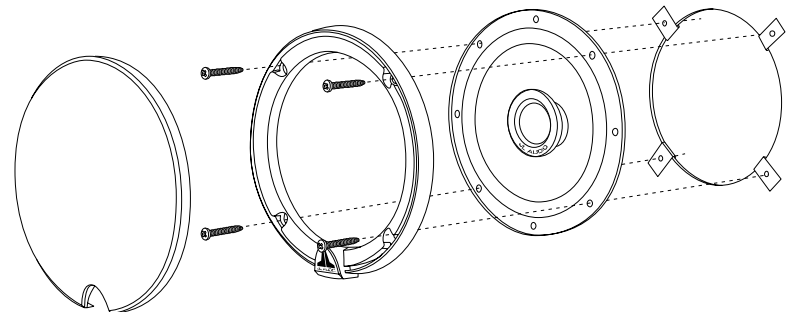
Run speaker wire to the desired mounting location. If you are running wires into a door; use existing factory wiring boots whenever possible. If you are drilling new holes, file their edges and install rubber grommets into each hole. Then, cover the wires with a protective PVC sleeve and run them through the door jamb. Make sure that the wires will clear door hinges and other structures in the door. If you are unsure about any part of this process, please contact your JL AUDIO dealer for installation help.

**Double check the clearance for both speakers before proceeding.**

Use the supplied template on the top of the product packaging to mark the desired mounting location. Mark the center and the outline of the mounting hole as well as the mounting screw positions. Before drilling or cutting, use a utility knife to cut any fabric, vinyl or leather from hole locations. These materials can easily be snagged by a drill or a saw, causing damage to the panel and possible bodily injury.

Drill four 1/8" (3 mm) holes for the speaker's mounting screws at the positions you have marked. Also drill a pilot hole in the center of the speaker mounting hole at this time. Then, using a saber saw, hole saw or nibbler, make the circular cut out for the speaker. File any rough edges.

**Insert the mounting clips with the flat side towards the speaker as shown in the diagram.**



It is absolutely vital that the speaker frame fits into the mounting hole cleanly. This must be checked prior to tightening the screws. Do not force the frame into a hole that is too small! Do not tighten the speaker onto an uneven surface! This will damage your speakers. The speaker should also fit so that no air leaks around the mounting flange. Air leaks will cause a severe degradation in sound quality. Seal any air leaks with silicone, rope caulk or similar sealant material.

Connect the speaker wires, observing correct polarity, and install the speaker and grille tray as shown.

**Hand-tighten the screws evenly to avoid bending the speaker frame!**

Break off small pieces of the supplied butyl adhesive putty and place them on the inside of each grille tray. This adhesive will hold the grille in place firmly and prevent rattling. Then insert the metal grille into the grille tray, squeezing gently around its edge until it seats firmly into the tray.