

RetroSound®

Full Range Loudspeaker Owner's Guide for:

RetroMod® SERIES



Models:

- R-354 (3.5" Full Range Speakers)
- R-463 (4x6" Full Range Speakers)
- R-652N (6.5" Full Range Speakers)
- R-413N (4X10" Full Range Speakers)
- R-693 (6X9" Full Range Speakers)
- R-410N (4x10" Full Range DVC Speaker)
- R-57N (5x7" Full Range DVC Speaker)
- R-69N (6x9" Full Range DVC Speaker)

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Introduction

Dear Customer,

Congratulations on your purchase. At Retro Manufacturing, we are obsessed with musical reproduction at its best, and are pleased you chose our product. Through years of engineering expertise, and critical testing procedures, we have created a wide range of products that reproduce music with all the clarity and richness you deserve.

Please read your warranty and retain your receipt and original carton for possible future use.

Great product and competent installations are only a piece of the puzzle when it comes to your system.

If, after reading your manual, you still have questions regarding this product, we recommend that you email us at: support@retrosoundusa.com or call us at 909-364-1372. Be sure to have your model number and date of purchase available when you call.

Installation

INSTALLATION CONSIDERATIONS

The following is a list of tools needed for installation:

#2 Phillips screwdriver / Battery post wrench /Hand held drill w/assorted bits/ Wire strippers/Wire crimpers/ Wire cutters

Since some of these RetroMod™ Full Range Speakers are most often used as direct replacements for stock speakers and are shipped without grilles.

For custom installations see a professional installer for help with your install.

CAUTION If you feel unsure about installing this system yourself, have it installed by a qualified professional installer.

CAUTION Before installation, disconnect the battery negative (-) terminal to prevent damage to the unit, fire and/or possible injury.

Before beginning any installation, follow these simple rules:

1. Be sure to carefully read and understand the instructions before attempting to install the unit.
2. For safety, disconnect the negative lead from the battery prior to beginning the installation.
3. For easier assembly, we suggest you run all wires prior to mounting your unit in place.
4. Use high quality connectors for a reliable installation and to minimize signal or power loss.
5. Think before you drill! Be careful not to cut or drill into gas tanks, fuel lines, brake or hydraulic lines, vacuum lines or electrical wiring when working on any vehicle.
6. Never run wires underneath the vehicle. Running the wires inside the vehicle provides the best protection.
7. Avoid running wires over or through sharp edges. Use rubber or plastic grommets to protect any wires routed through metal, especially the firewall.

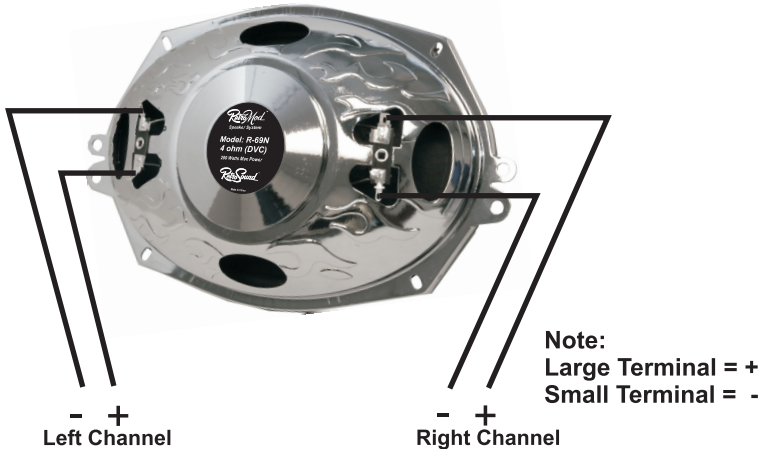
MOUNTING

1. Determine where the speakers will be mounted. Ensure an area large enough for the speaker to mount evenly. Be sure that the mounting location is deep enough for the speaker to fit; if mounting in a door, operate all functions (windows, locks, etc.) through their entire operating range to ensure there is no obstruction.
2. Refer to the specification chart to determine the proper diameter hole to cut for your speaker model.
3. Using the grille (not included in most models) as a template, mark the locations for the mounting screws. Drill the holes with a 1/8" bit.
4. Feed the speaker wires through the cutout and connect to the speaker terminals. Be sure to observe proper polarity when connecting the wires. The speaker's positive terminal is indicated with a "+".
5. Fit the speaker to the cutout. Fit the grille over the speaker (Where applicable). Mount them using the enclosed screws.
6. Tighten the screws until the speaker and is snug in place to prevent rattling. Do not overtighten the screws.

Installation (Continued)

Wiring our 4 ohm Dual Voice Coil Speaker for 2 channel connection:

Note, the following speaker models from Retrosound (R-57N, R-410N, R-69N) feature Dual Voice Coils, this allows you to connect left and right speaker channels to one speaker, this will give you a fuller, richer sound for vehicles that only have one single speaker mounted in the dash or the rear deck area.

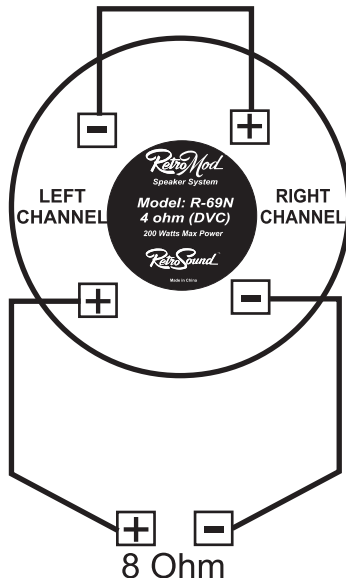


Wiring our 4 ohm Dual Voice Coil Speaker in series so the amplifier sees an 8 ohm impedance:

Note: The following speaker models from Retrosound (R-57N, R-410N, R-69N) feature Dual Voice Coils, Wiring the voice coils in series allows the unit's amplifier to see an 8 ohm nominal load. This is an advanced wiring concept and should only be done by experienced and knowledgeable installers. For other configurations or general questions, please email us at: support@retrosoundusa.com.

A note about nominal impedance:

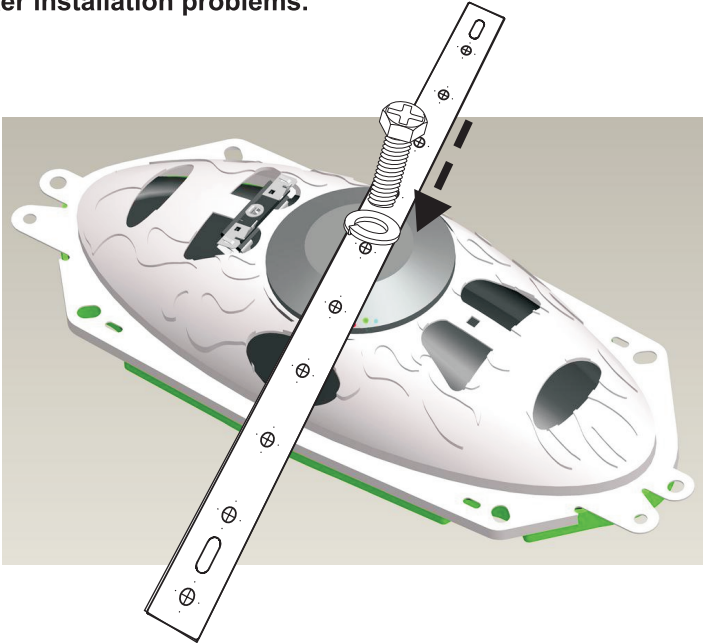
Nominal Impedance is the manufacturer's specification given for the speaker. It is meant to represent the average impedance a speaker presents to an amp. Resistance fluctuates constantly on the speaker while it is playing, so if you try to measure DC resistance on a speaker with a multi meter while it is just sitting on a bench, you will most likely not get a reading consistent with the ohm value stamped on the back of the speaker's magnet.



Optional Item: "Universal Speaker Bracket"

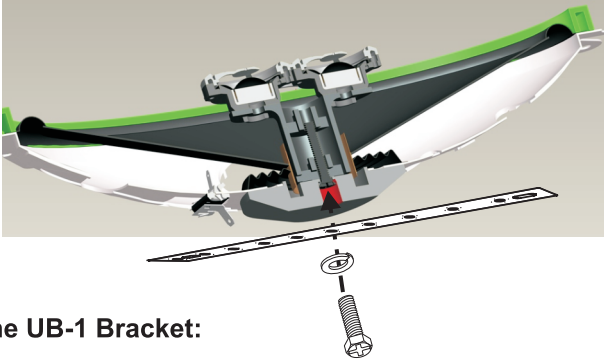
Universal Speaker Bracket Kit (UB-1)

Available Separately, This 14" bracket combined with the rear threaded mounting point of our new 2010 versions of our Dual Voice Coil 5x7", 6x9" & 4x10" speakers allows you to make your own speaker bracket. You can modify the bracket to solve those challenging installs where there are no other options available. This mounting system is *THE* answer to classic car speaker installation problems.



The Optional UB-1 Speaker bracket mounts to the threaded input on the back of our 2010 Dual Voice coil speakers. This bracket can be bent or trimmed, in virtually any shape necessary to accomplish your desired installation goals. Some vehicles, like mid-late GM cars require a speaker bracket to install a speaker in the original mono dash location. The combination of this kit and our speaker will allow you to use the UB-1 bracket to allow you to affix the speaker to the original mounting location, or in some cases to multiple locations.

Optional Item: "Universal Speaker Bracket" continued



Using the UB-1 Bracket:

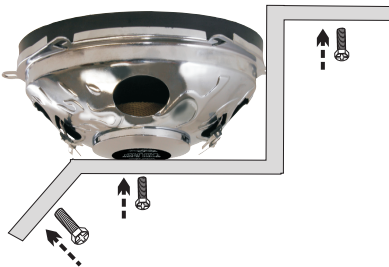
This bracket can be bent in many directions to accomplish the desired results, below are some shapes you can bend the bracket to, which will help you mount our speaker into your dash. In some cases, you may need two brackets to help mount the speaker to your original dash mount, please review your needs carefully prior to installation. Please email us at support@retrosoundusa.com or call us toll free: 888-325-1555.



L Bracket style



Here's a great example of a solid horizontal mount



This mount is good for a rear deck application



Bend to your own custom style to mount virtually anywhere!



Speaker Specifications

Model	R-354	R-463	R-652N	R-413N
Nominal Diameter (inch)	3.5"	4X6"	6.5"	4X10"
Description	2-Way	2-Way	2-Way	2-Way
Nominal Impedance (ohms)	4 (SVC)	4 (SVC)	4 (SVC)	4 (SVC)
Frequency Response	100Hz-21kHz	80Hz-21kHz	52Hz-21kHz	43Hz-21kHz
Sensitivity (SPL@1w/1m)	85dB	86dB	87dB	87dB
Power Handling				
(Watts RMS/Peak)	20/30	80/150	50/100	90/160
Installation				
Speaker Grilles —	NO	NO	YES	YES
Mounting Depth (inch)	1.4	1.65	1.77	1.77
Mounting Depth (mm)	35	42	44	44
Model	R-693	R-57N	R-410 N	R-69N
Nominal Diameter (inch)	6X9"	5X7"	4X10"	6X9"
Description	3-Way	2-Way	2-Way	2-Way
Nominal Impedance (ohms)	4 (SVC)	4+4 DVC	4+4 DVC	4+4 DVC
Frequency Response	40Hz-21kHz	65Hz-21kHz	43Hz-21kHz	40Hz-21kHz
Sensitivity (SPL@1w/1m)	90dB	87dB	87dB	90dB
Power Handling				
(Watts RMS/Peak)	100/200	60/100	90/160	100/200
Installation				
Speaker Grilles —	YES	NO	NO	NO
Mounting Depth (inch)	2.75	1.77	1.77	1.77
Mounting Depth (mm)	70	44	44	44

**Note: We're always improving our products!
The above specifications are subject to change
without notice.**

**Please email us at: support@retrosoundusa.com
or visit us on the web for any spec updates.**



LIMITED WARRANTY

If your product does not work properly because of defects in materials and workmanship RetroSound a division of Retro Manufacturing, LLC (collectively referred to as "the warrantor") will, for the length of the period indicated in the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or refurbished product. The decision to repair or replace will be made by the warrantor.

CATEGORIES	PARTS	LABOR
Radios	Two (2) Years	Two (2) Years
Speakers	One (1) Year	One (1) Year
Accessories (Remotes, cables, etc)	90 Days	90 Days

During the "Labor" warranty period, there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry in or mail in your product prepaid during the warranty period. If non rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States, Alaska, Hawaii or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

To handle a warranty issue, contact us at 909-364-1372 or email us at support@retrosoundusa.com and get a Return Authorization number, all returns and warranty issues must receive a Return Authorization (RA) number. Any product received without a RA number will be Refused.

Retro Manufacturing, LLC
Chino, California 91710
Phone: 909-364-1372
Fax: 909-364-8670

LIMITED WARRANTY LIMITS AND EXCLUSIONS

This warranty ONLY COVERS failures due to defects in materials and workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred during shipment, failures which are caused by products not supplied by the warrantor, failures which result from accident, misuse, abuse, neglect, bug infection, mishandling, misapplication, alteration, faulty installation, set-up adjustment, maladjustment of consumer control, improper maintenance, improper antenna, inadequate signal reception or pickup, power line surge, improper voltage supply, lightning, modification, commercial use (such as use in hotels, offices, restaurants, or other business uses) or rental use of the product, or service by anyone other than the technician from Factory Service center or other authorized service centers, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the sevicer, and loss of media, data or other memory contents. The items listed are not exclusive, but are for illustration only.) **ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the 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 a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center.

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Note: The information enclosed in this installation guide is to be used as merely an outline to assist you during the process of installation. This guide does not cover every installation possibility, vehicle, or every aspect of the installation process.

Retro Manufacturing, LLC, Retrosound, or its subsidiaries, assume no responsibility for a proper or improper installation. Every attempt has been made to make this installation guide as informative as possible, and therefore may be updated from time to time. Please check our website for the latest update. (www.retrosoundusa.com).

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