



RECOIL[®]

RMM65/RMX65

ECHO PLUS SERIES SPEAKER SYSTEM

User Manual

BEFORE YOU START - CONGRATULATIONS!

Congratulations on your purchase of our product! We hope that RECOIL acoustics will delight you with impressive performance. In the production of our speakers, high-quality components and ultramodern materials are used. This manual contains the basic instructions required for the correct installation and use of the system. Before installing the components, please read all instructions in this manual carefully. Failure to follow instructions can result in unintentional damage or product damage. If there is any question, please contact support@recoilaudio.com

PRECAUTIONS

ATTENTION!

Prolonged exposure to sound pressure 100 dB and higher can cause hearing loss. Use common sense and practice safe sound. Remember that prolonged exposure to excessively high sound levels can damage your hearing. Driving safety comes first.

The manufacturer is not responsible for hearing loss, body damage or property damage due to misuse of this product.

Proceed with the installation only if you are a qualified car audio installer, otherwise contact a professional installation service.

- Always wear safety glasses when using tools.
- Before proceeding with the installation, turn off the car head unit and other electronic devices.
- Disconnect the negative (-) terminal from the car battery before starting the installation.
- Store the loudspeaker in its packaging if you have not proceeded to install it, and always place the loudspeaker with the cone facing up. Never use force when installing speakers.
- Determine the location of the fuel lines, brake pipes, oil lines, and vehicle electrical wiring before proceeding with the installation.
- Check that the installation site has sufficient air exchange on both sides of the speakers before drilling holes.
- Check that nothing interferes with the normal operation of the cone, otherwise the cone will be damaged.

- Use a utility knife to cut off excess pieces of fabric near the hole where the speaker will be installed before starting drilling.
- Use a grommet for the speaker wires (not included) when pulling through sheet metal, otherwise the wire may be damaged by the metal edges of the hole.

BILL OF MATERIAL

RMM65/RMX65 - 1 pair

Instruction - 1 pc

Mounting Screw Pack - 8 Pairs

SPECIFICATIONS

MODEL	RMM65	RMX65	UNIT
Nominal Diameter	6.5"/165	6.5"/165	In/mm
Nominal Impedance	3.2	3.2	Ohms
RMS Power Handling	80	80	Watts
MAX Power Handling	160	160	Watts
Frequency Response	60-20K	60-20K	Hz
Voice Coil Diameter	30.5	30.5	In/mm
FS-Free Air Resonance	60	60	Hz
Qts	0.61	0.61	N/A
Qes	0.65	0.65	N/A
Qms	4.1	4.1	N/A
Vas	15.1	15.1	L/FT3
Sensitivity(1M/1W)	89	89	dB
Crossover Frequency	4500	6500	Hz
Xmax	4	4	in/mm

INSTALLATION

INSTALLING THE SPEAKERS

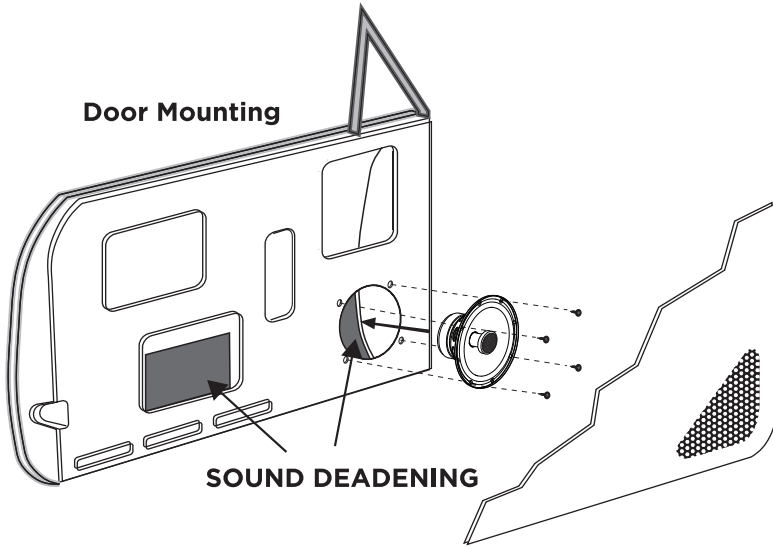
Your new Recoil speakers were designed with the flexibility to be installed in multiple locations. However, to ensure the best performance possible, it is important to isolate the front sound waves of the speaker from its rear sound waves. This is done by securely mounting the speaker to a flat surface known as a baffle. Make sure to seal the speaker to ensure there are no air leaks around its frame.

SELECTING A LOCATION

If your vehicle has existing factory locations, the easiest method would be to replace them with the exact same size speaker. In the case where there is not a factory speaker location, there are many places where the speakers will fit in a vehicle, but they are not always the best locations for good sound. Make sure to take the time to select the best locations possible. Mounting the speakers so that they are equal distance from your ears will achieve the best results. If you experience any difficulties please consult with your local authorized Recoil dealer. They have the tools and know-how to help.

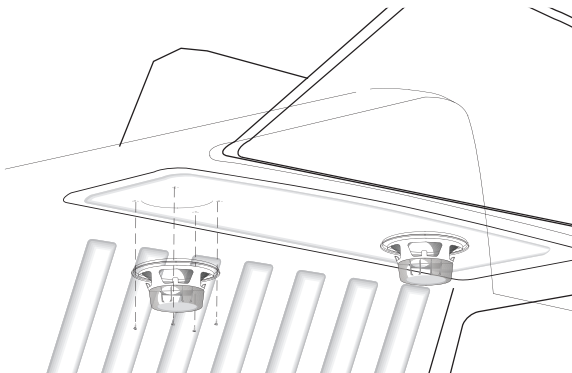
DOOR MOUNTING (IF NOT USING FACTORY LOCATIONS)

Prior to cutting, remove the panel from the door and check for clearance in the intended installation area, making sure the window will go all the way up and down without any interference. Avoid cutting any structural metal support or braces to mount the speakers. We HIGHLY recommend that for the BEST sound you put a sound deadening mat on the door "skin" (as shown below). The more "damped" your car is.... the better it will ultimately sound!!!



REAR DECK MOUNTING

There are two primary methods for mounting speakers in the rear deck of a vehicle, top and bottom mounting. Top mounting requires dopping the speakers in through the deck (interior) while bottom mounting secures the speakers from underneath (trunk). Either method requires a good seal around the frame for the best performance.

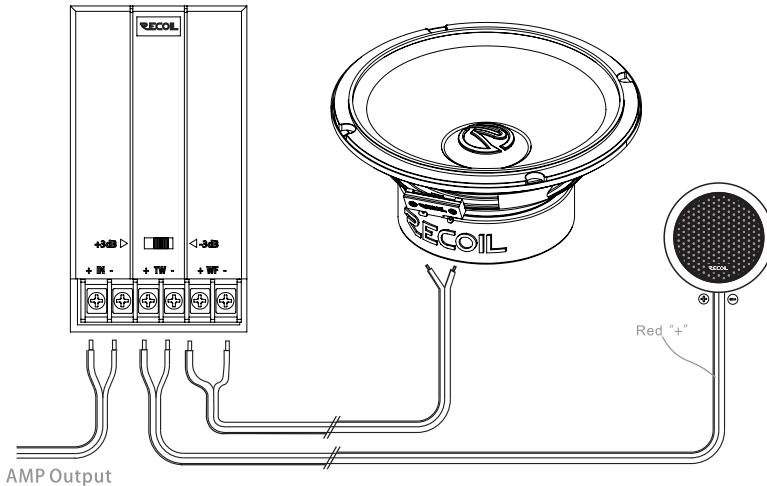


RUNNING NEW WIRING

In most cases when mounting new speakers you will use the factory supplied wiring, but if new wires have to be run there are some precautions that need to be taken. If the wire needs to run through metal, such as a door jamb, always use a grommet to prevent damage to your wires. Never run wire through bare metal! This can damage the source unit, amp, or even the speakers themselves. Safety of the wiring against short ciruis is THE MOST IMPORTANT INSTALLATION CONCERN.

CONNECTION DIAGRAM

The illustration below shows how to connect one channel of the RMM65 component system (is similar in conection, but just amplifier input and tweeter output only)



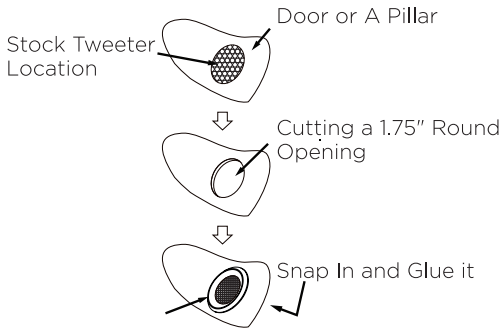
CROSSOVER PROGRAMING

Each RMM65 component set comes with a pair of programmable crossovers specifically designed to work with the midrange speaker and tweeter. By pulling the segment switch with three possible configuration. "-3 dB" tweeter attenuation can be achieved by moving the switch to the "-3dB" position. The default "reference" position has no attenuation effect on the tweeter is 0dB.



TWEETER INSTALLATION

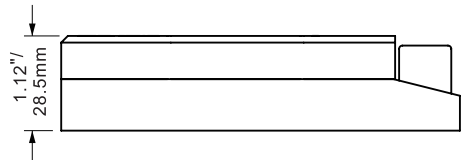
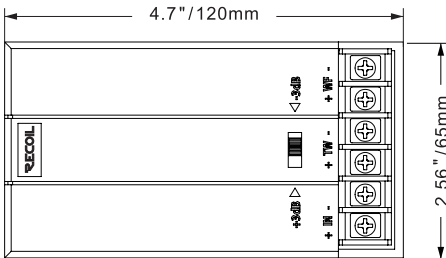
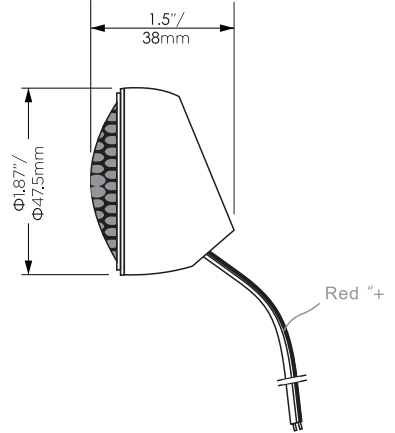
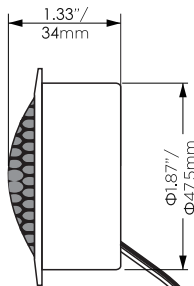
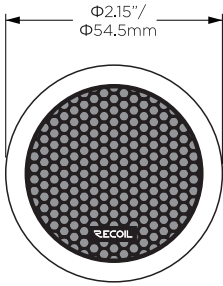
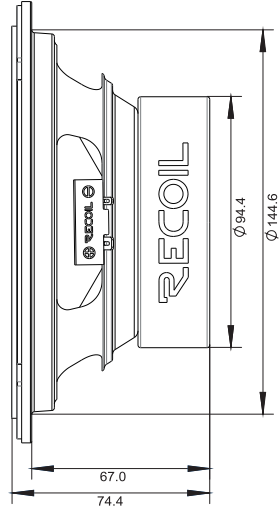
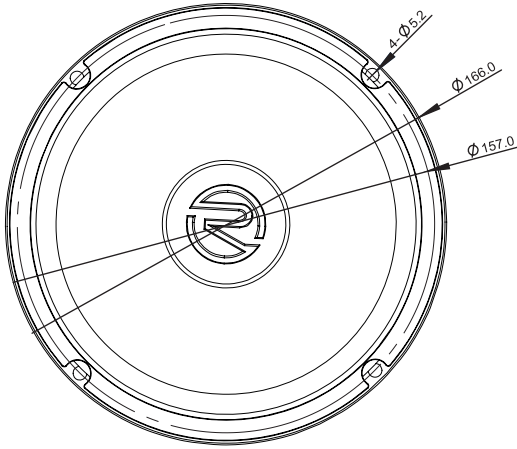
When flush or surface mounting tweeters, make sure the desired location can accommodate the hole sizes and depth required. The tweeter can also be surface mounted atop the dash, door, or rear deck. Mount cup using the provided hardware, flush mount illustration shown below. The flush mount bezel requires cutting a 1.75" (47.5mm) round opening. Be sure there is AT LEAST 1 INCH (25.4mm) behind the panel so the tweeter has adequate clearance. Remember when using a hole saw the thickness of the saw teeth will add to the cut diameter, Mount the surface cup at the desired angle with provided screws in the tweeter mounting kit. Route speaker wires through tweeter cup, connect the tweeter to wires, and snap the tweeter into the cup by aligning the notches in the tweeter cup with the notches in the tweeter base. Be careful not to push on the center of the tweeter grill.

Flush Mount**Surface Mount****CROSSOVER INSTALLATION**

Install in a well ventilated area whenever possible. If you must install the passive crossovers in the doors due to the use of factory wiring. Make sure as you "feed" wire into the door cavity, ensure that the crossover is installed behind the door panel instead of inside the door itself. This will offer the greatest capacity for avoiding any water damage caused by rain or moisture. Also avoid placing it near factory wiring looms to ensure no radiated noise problems. Connect the input side labeled "AMP" of each passive crossover to the amplifier's speaker output terminals. Be sure to observe correct polarity for positive and negative terminals, Next, connect the middle terminals labeled "MID" to the midrange speaker. Finally, connect the end terminals labeled "TWT" to the tweeter.

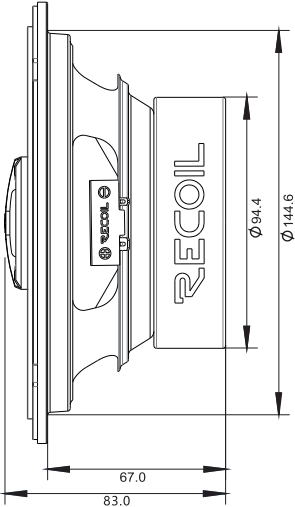
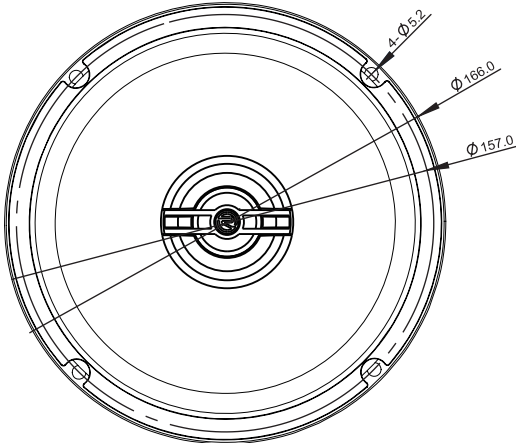
DIMENSIONS

RMM65



DIMENSIONS

RMX65



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