

EMOTIVA®



airmotiv® *vault*™ **AVL-6.5**

Loudspeaker User Manual



Airmotiv® Vaulta™ AVL - 6.5

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Introduction

Thank you for purchasing our new Emotiva Airmotiv™ Vaulta AVL- 6.5 ceiling speaker.

The Emotiva Airmotiv series of speakers represents the culmination of years of research and experience in producing home and professional loudspeakers offering both excellent technical performance and superb sound quality. Our Airmotiv speakers were designed from the start to be equally at home in an audiophile stereo system or a high-end home theater.

Our design philosophy is simple: if a speaker can reproduce the entire audible spectrum, as accurately as possible, with very little distortion or coloration, then it will sound good - whether you're playing classical music, or jazz, or the sound track of your favorite blockbuster movie.

For high-frequency reproduction, we chose our Airmotiv™ folded ribbon tweeter. This tweeter, which we introduced in our Airmotiv Stealth studio monitors, offers excellent frequency response, very low distortion, great detail retrieval, and high power handling capability. And, last but certainly not least, the Airmotiv folded ribbon tweeter sounds superb at all listening levels.

For middle and low frequencies we chose advanced woven fiber cones, which deliver smooth response over the entire audio spectrum, and blend well with our Airmotiv tweeters.

The crossover network used in each Airmotiv speaker was carefully designed and optimized to work perfectly with the drivers we chose for each, and features audiophile quality film capacitors, high quality inductors, and precision resistors in critical locations.

The Airmotiv Vaulta AVL- 6.5 was specifically designed to be ceiling mounted and works especially well as a ceiling or height speaker in immersive audio installations. Of course, you can also use the Vaulta AVL- 6.5 in stereo pairs, anywhere that ceiling mounted speakers are preferred.

The Airmotiv Vaulta AVL- 6.5 features an attractive magnetically attached grill, which is supplied in a neutral white color, but can be custom painted to match your room decor. The Vaulta AVL- 6.5 sounds great on its own, and is timbre-matched to the other speakers in our Airmotiv series, which makes it an excellent choice for adding height speakers when it's time to upgrade your current surround sound system to the latest immersive audio technology.

If you've been searching for a superb sounding ceiling speaker, at an affordable price, then your search is over... you've found Airmotiv Vaulta.

Happy listening!
The Emotiva Team

About This Manual

This manual will provide you with all the information you need to achieve great performance, accurate sound, and many years of reliable service from your Airmotiv speakers.

We suggest that you read through the entire manual; we kept things as short and direct as possible. Even if you're an expert user, you will probably find some interesting information and useful suggestions.

You may wish to record serial numbers or other purchase information on the Notes page at the back of this manual.

Airmotiv Vaulta AVL - 6.5 Features

The Emotiva Airmotiv speakers were designed to deliver superb sound for any audiophile stereo or home theater sound system. When paired with any high-quality power amplifier, all of the Airmotiv speakers will deliver clean, uncolored, properly balanced sound with very low distortion and outstanding rendition of even the finest details. All of the speakers in the Airmotiv series were carefully timbre matched to work well together, and to deliver a cohesive audio image in any stereo or surround sound installation. The Airmotiv Vaulta AVL - 6.5 is designed to be mounted in the ceiling, and is ideal as a height speaker for immersive audio, or as a ceiling speaker to deliver high quality music in a second zone or playroom.

The following are a few of the feature highlights of the Airmotiv Vaulta AVL - 6.5:

- **Airmotiv™ 25mm folded ribbon tweeter** - delivers flat frequency response, low distortion, smooth off-axis response, and excellent dispersion, for pinpoint image localization with today's immersive audio systems. The tweeter in the Vaulta AVL - 6.5 can be adjusted over a range of about 40 degrees, allowing high frequencies to be directed toward the listening position, for optimum image localization in immersive audio installations.
- **Advanced 6.5" woven fiber mid/woofer with NBR roll surround** - delivers smooth frequency response, lifelike detailed midrange, and crisp clean low frequencies at all listening levels.
- **Simple yet secure mounting system** - allows the Vaulta AVL - 6.5 to be easily installed with only a few tools, and ensures that it will remain firmly in place after installation.
- **Attractive magnetically attached metal grill** - is held firmly in place by six powerful rare-earth magnets, ensuring that the grill will remain firmly in place during normal operation, but can be easily removed for cleaning. The grill is shipped with an attractive neutral white finish, and can be custom painted to match your ceiling or room decor.
- **Precision crossover** - is carefully optimized to work perfectly with the drivers in the Airmotiv Vaulta AVL - 6.5, and features audiophile quality film capacitors, high quality inductors, and precision resistors in critical locations.
- **Transparent tweeter overload protection** - has no effect on sound quality at normal listening levels, but protects the tweeter from damage due to occasional overloads.
- **High-quality gold plated pushbutton terminals** - for simple secure connection and long worry-free service life.
- **Full five year warranty** - ensures that you'll be able to enjoy your Airmotiv speakers for years to come.

You can find more information about the Emotiva Airmotiv Vaulta AVL - 6.5 on our website at www.emotiva.com.

Unpacking

Your Airmotiv Vaulta AVL - 6.5 loudspeakers were carefully packed and should reach you in perfect condition. If you notice any shipping damage or other issues when you unpack them, please contact Emotiva immediately.

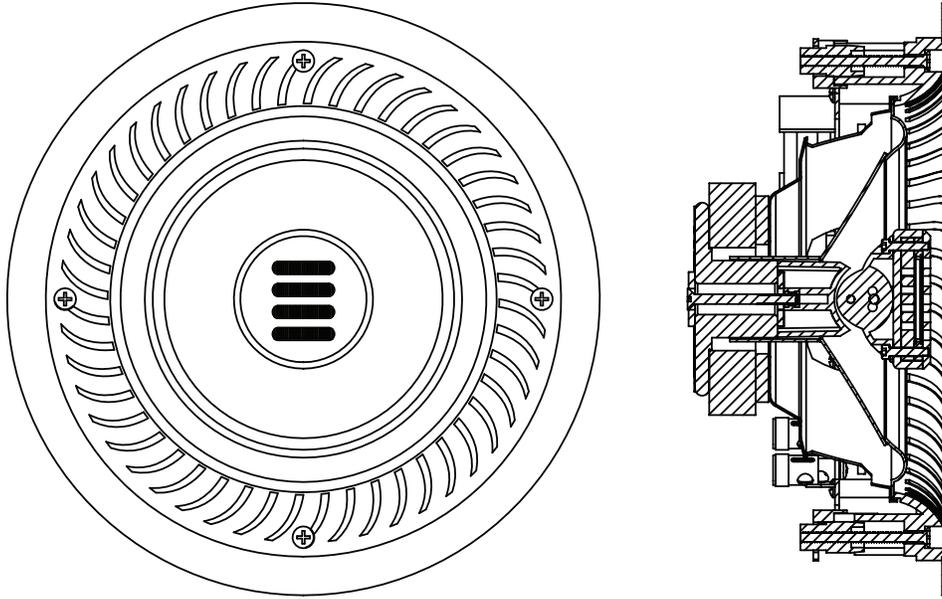
Gently remove your Airmotiv loudspeakers from the packing carton and remove all wrappings and shipping material. Always handle the speaker by the support frame or the rear. DO NOT press directly on the cone or surround of the mid / woofer.

It is important to save the box and all packing materials in case your Airmotiv speakers ever need to be moved or shipped back to the factory for service.

Please keep your sales receipt in a safe place. It is the easiest way to verify your purchase date for warranty purposes, and may also be required if you ever have to file an insurance claim.

We truly value customer feedback and would like to hear from you.

Airmotiv Vaulta AVL - 6.5 Specifications



Driver Complement

High frequency driver: 25 mm Airmotiv folded ribbon tweeter.

Low frequency driver: 6-1/2 inch woven fiber cone mid/woofer with NBR roll surround.

Electrical Specifications

Crossover frequency: 3.7 kHz.

Crossover slope: 12 dB / octave.

Frequency response: 70 Hz - 40 kHz +/- 5 dB.

Nominal impedance: 8 Ohms.

Efficiency: 85 dB / 1 watt.

Power handling capability: 150 watts nominal.

Terminals: Gold plated spring return pushbuttons.

Mechanical Specifications

Mounting cutout diameter: 8 inches.

Mounting frame diameter: 9 inches.

Grill diameter: 9-1/4 inches.

Minimum depth clearance required: 4 inches (measured from front surface of ceiling).

Maximum mounting thickness: 1-1/8 inches (maximum thickness of ceiling material).

Grill thickness: 1/4 inch (measured from front surface of ceiling).

Weight: 4.2 pounds.

Choosing Where To Install Your Speakers

Your Airmotiv Vaulta AVL - 6.5 loudspeakers are designed to sound great no matter where you install them. But, of course, room acoustics will affect how they sound and how they interact with the rest of your system. For example, if you're installing a pair of Vaulta AVL - 6.5 speakers to add stereo sound in a second zone or playroom, certain locations will enable them to deliver the most balanced sound, and the best stereo experience, for most of the listeners in the room. And, if you're installing a set of Vaulta speakers as height speakers for use with the immersive sound system in your home theater room, the locations you choose will largely be determined by the requirements of the immersive sound system you've chosen.

Choosing Where To Install Vaulta Speakers In An Immersive Home Theater System

If you plan to use your Airmotiv Vaulta AVL - 6.5 speakers as part of an immersive audio system that features Dolby Atmos® or DTS-X™ then where you install them will be determined by the requirements of the system you choose. If you have an immersive sound system, controlled by a surround sound processor or home theater receiver, you should set the size selection for your Vaulta AVL - 6.5 speakers to "small", and leave the crossover setting set to 80 Hz, which is the default for most systems.

Choosing Where To Install a Stereo Pair of Vaulta Speakers

When installing a stereo pair of Vaulta speakers in a second zone or playroom, the location you choose will depend to some extent on how you use the room. For example, if you're installing your Vaulta speakers in your den, and your normal listening position is seated on a couch in front of the TV... then the best location for your speakers, which will deliver the best stereo image for listeners seated on the couch, will be in front of the couch, equidistant from it, and separated as widely as possible. However, if there is no specific preferred listening position, then simply positioning them as far apart as possible will give the best stereo experience to the largest number of listeners. And, if you have a large or irregularly shaped room, you may consider installing two pairs, to provide more complete coverage. The Vaulta AVL - 6.5 is rated at 8 Ohms. Therefore, if your amplifier is rated to handle 4 Ohm speakers, you can safely connect a pair of Vaulta speakers, wired in parallel, to the speaker output of each channel.

The bass response of the Airmotiv Vaulta AVL - 6.5 extends to below 70 Hz, which blends smoothly with most subwoofers. However, if you plan to use them without a sub, you can increase their bass output by mounting them close to a corner of your ceiling.

A Few Words On Wall Installations

While we consider the Airmotiv Vaulta AVL - 6.5 to be an in-ceiling speaker, they can safely operate at any angle, and there is no specific restriction against mounting them in an angled ceiling, or even in a wall. Note, however, that the fully enclosed walls in most modern homes DO NOT provide sufficient depth clearance for the AVL - 6.5.

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Installing Your Airmotiv Vaulta AVL - 6.5 Speakers

Installing your new Airmotiv Vaulta AVL - 6.5 loudspeakers will require the use of tools such as a drill, screwdriver, and saw. The installer should be familiar with the use of such tools, and familiar with all applicable building and fire codes. Care must be taken to ensure that the ceiling area where you wish to install your Vaulta loudspeakers is strong enough to support them, is free of all obstructions, and provides adequate depth clearance. When cutting mounting holes and running wires, special care must be taken to avoid electrical wiring, water and gas pipes, and air conditioning and heating ducts or conduits. Failure to avoid existing wiring or pipes may result in personal injury and / or property damage.

If you are not comfortable with the above considerations then we strongly suggest that you employ the services of a professional A/V installer or contractor.

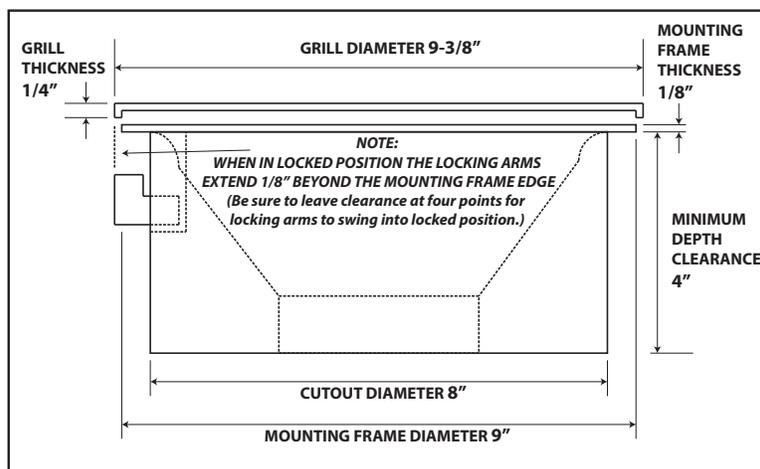
Your Airmotiv Vaulta AVL - 6.5 loudspeakers are designed to mount in a round hole 8" in diameter. The mounting frame on the front of the speaker is 9" in diameter, and extends an additional 1/2" outside the diameter of the mounting hole, and the grills extend another 1/8" beyond that.

The locking arms, which hold the speaker in position when they are engaged, extend approximately 3/4" beyond the diameter of the mounting hole at four points around its circumference in the rear. We suggest maintaining a clearance of at least 2" between your Vaulta speaker and any joists, pipes, wires, or light fixtures that may interfere with your loudspeakers.

To ensure clearance in a plasterboard or other ceiling that employ ceiling joists, we suggest locating your Vaulta loudspeakers at least 2" from the nearest joist. To ensure both adequate clearance and optimum strength when mounting your Vaulta AVL - 6.5 loudspeakers in a drop ceiling, we recommend mounting them near the center of a tile whenever possible.

When installing wiring for in-ceiling speakers, use only cable that is rated for in-wall or in-ceiling use (UL standard CL2, CL3 and CM; CSA standard FT4).

Refer to the illustrations that follow for details about the required clearances for mounting your Airmotiv Vaulta loudspeakers.



- 1) Before installing your Airmotiv Vaulta AVL - 6.5 loudspeakers you should first run appropriate speaker cable to the location where they are to be installed. We suggest using high quality moderately heavy gauge speaker cable rated for in-wall or in-ceiling use (14 gauge or thinner is usually most appropriate for ceiling speakers).
- 2) Choose the location for each of your Vaulta loudspeakers.
- 3) Double check to confirm that you have adequate clearance behind and to the sides of your chosen location.
- 4) Mark an 8" circle at the location where each speaker is to be installed using the provided template.
- 5) Carefully cut out the 8" round mounting hole for each speaker using a drywall saw or utility knife - whichever is appropriate for your ceiling material.
- 6) Pull your pre-installed speaker cables out through the hole and trim them to the proper length. Allow some slack so you have room to work with the wires.
- 7) For optimum sound quality, we suggest placing a block of full-thickness fiberglass insulation above each speaker, extending at least 18" in each direction, if space permits you to do so.
- 8) Strip the ends of each wire in your speaker cable to prepare for connecting them to your Vaulta speakers.
- 9) At this point look closely at your Vaulta loudspeakers and note the direction in which the tweeter tilts. Plan to orient each Vaulta speaker so that you can adjust the tilt of the tweeter towards your your prime listening position.
- 10) Connect the speaker wires to the terminals on each Vaulta speaker, lift the speaker into position, and tighten the locking screws to engage the locking arms and lock each speaker into position.
- 11) Adjust the angle of each tweeter and attach the grill to the speaker.

(Refer to the illustrations on the next page for details.)

NOTE:

BE CAREFUL HOW YOU SUPPORT THE SPEAKER DURING INSTALLATION.

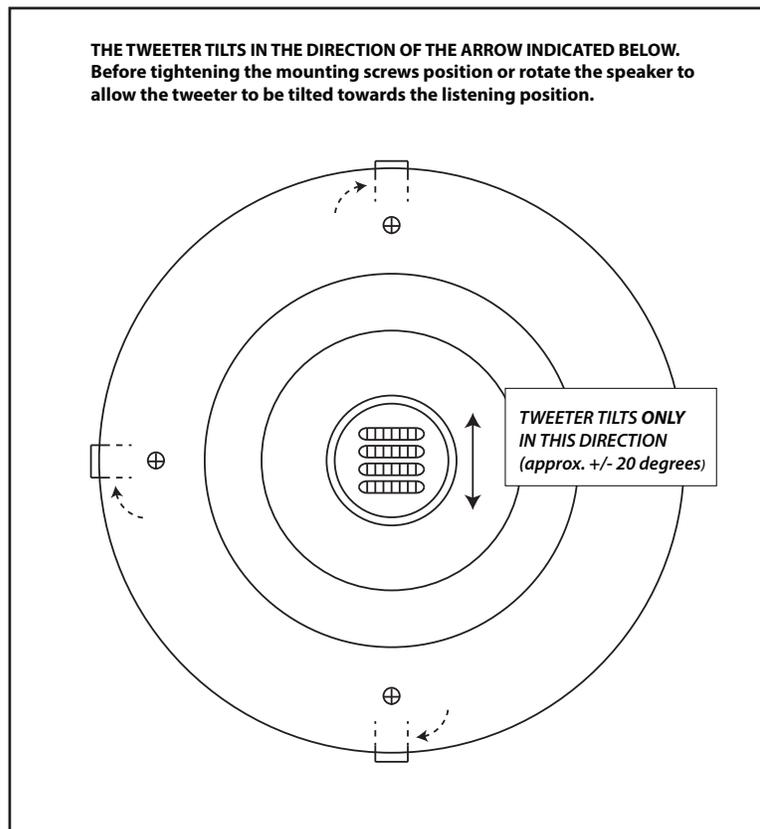
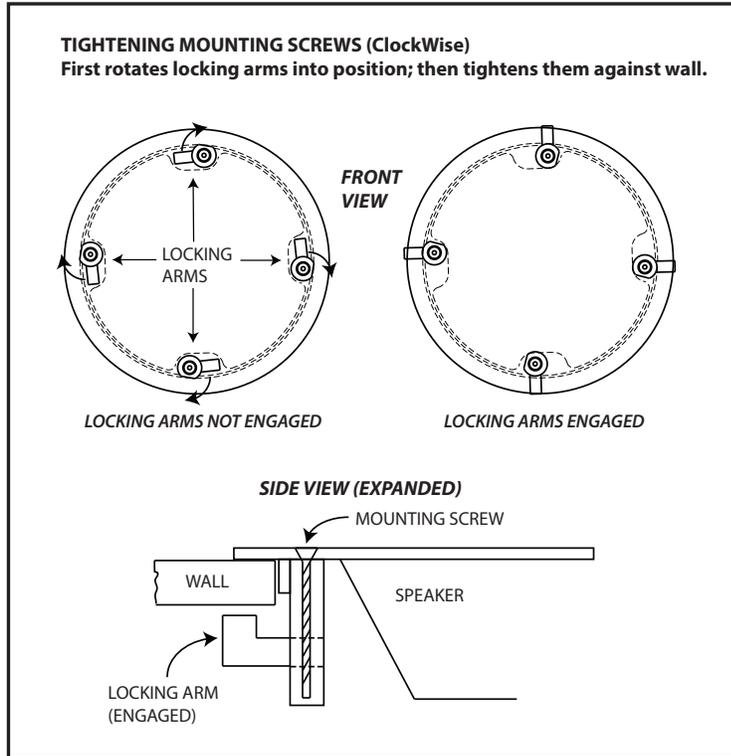
You may support the weight of the speaker by placing your hand or hands against the front of the mounting frame.

DO NOT attempt to support the speaker by placing your hand or fingers directly on the cone or suspension of the mid/woofer. Doing so will result in damage to your speaker.

NOTE:

WE STRONGLY RECOMMEND USING A MANUAL SCREWDRIVER FOR THIS OPERATION.

DO NOT overtighten the mounting screws. Screws must be tight enough to pull the locking arms against the top of the ceiling and hold the speaker firmly in place. If the screws are overtightened the locking arms may cause the surface of the ceiling to buckle, resulting in a less secure installation, and a speaker that fails to sit flush against the ceiling.



Care and Maintenance

Periodic Maintenance

Your Airmotiv Vaulta loudspeakers require no periodic maintenance or calibration.

Cleaning the Grill

- The grill of the Airmotiv Vaulta loudspeaker should normally be cleaned with a rag dampened with plain water. **DO NOT** spray water directly onto or into the speaker and **DO NOT** use abrasive or chemical cleaners. Gently dry the surface with a clean soft rag after cleaning.
- If necessary, use a mild detergent, wipe the surface with a rag dampened with plain water afterwards to rinse it, and then gently dry the surface with a clean soft rag.
- If something nasty does get on the grill of your Vaulta speaker, use a rag dampened with a weak solution of dish detergent or other mild cleaning liquid, followed by a rag dampened with plain water, and then dry with a clean rag.

Custom Painting The Grill On Your Vaulta AVL - 6.5

The grill of your Airmotiv Vaulta AVL - 6.5 loudspeaker is supplied with a neutral white finish. The grill can be painted in custom colors to match your room or ceiling. However, if you do so, care must be exercised to avoid blocking up the perforations, which would seriously compromise sound quality.

- Remove the grill from your Vaulta loudspeaker.
- Remove the cloth scrim from inside the metal grill by peeling it off - and discard it. (The cloth scrim cannot be colored or replaced.)
- Place the metal grill on a dropcloth and paint it as follows:
DO NOT use a roller or standard wall or trim paint.
(It is too thick and will block the perforations in the grill.)
You may use commercial or custom matched spray paint.
You may use latex wall paint - but **ONLY** if you apply it with a spray gun after diluting it according to the manufacturer's specifications for use with a spray applicator.
- Apply several light coats, from several different angles to ensure full coverage, allowing the paint to dry between coats.
- Replace the grill when dry.

NOTE:

REMOVING THE CLOTH SCRIM WILL ALTER THE SOUND SIGNATURE SLIGHTLY.

This step should be performed before performing speaker and room calibration.

Emotiva Audio Corporation Five-Year Limited Warranty

What does this warranty cover?

Emotiva Audio Corporation (Emotiva) warrants its products against defects in materials and workmanship. This warranty, and all rights provided hereunder, is limited to the original owner. In the event the original owner transfers ownership of the Product prior to the expiration of the applicable term described below, this Warranty shall terminate immediately upon such transfer of ownership.

This Warranty only applies to Products purchased directly from Emotiva or any of its Authorized Dealers or International Distributors.

Emotiva warrants any replacement product or part furnished hereunder against defects in materials and workmanship for the longer of the following: (i) the amount of time remaining under the original warranty, or (ii) 120 days from your receipt of the repaired or replaced product. The duration described in this paragraph is hereinafter referred to as the "Term".

TO THE FULLEST EXTENT PERMITTED BY LAW, ALL IMPLIED WARRANTIES RELATED TO THE ORIGINAL PRODUCT AND ANY REPLACEMENT PRODUCT OR PARTS (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE EXPRESSLY LIMITED TO THE TERM OF THIS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

The original owner must make a claim within the Term of the Warranty. A claim shall not be valid (and Emotiva has no obligation related to the claim) if it is not made within the Term and if it is not made in strict compliance with the requirements of the "How do you get service?" section.

How long does this coverage last?

This warranty commences on the date of retail purchase by the original retail purchaser and runs for a period of five years thereafter. This warranty is non-transferable to any person that owns the warranted product during the Term. Emotiva warrants any replacement product or part furnished hereunder against defects in materials and workmanship for the longer of the following: (i) the amount of time remaining under the original warranty, or (ii) 120 days from your receipt of the repaired or replaced product. The duration described in this paragraph is hereinafter referred to as the "Term".

*Accessories, cables, Big Ego, Little Ego, and remote controls have a one-year warranty to the original owner. The CD transport mechanism on the ERC-3 has a two-year warranty to the original owner.

What will Emotiva do?

Emotiva will, at its option, either: (i) repair the product, or (ii) replace the product with a new consumer product which is identical or reasonably equivalent (in Warrantor's sole discretion) to the product. In the event Warrantor, in its sole discretion, is unable to replace or repair the Product or it is not commercially practicable to do so, then: (i) if the claim was submitted during the first 365 days of the Term, Warrantor shall refund to you the purchase price that you paid for the Product; and (ii) if the claim was submitted after the first 365 days of the Term, Emotiva shall issue you a credit equal to the purchase price that you paid for the product. The credit may only be used for the purchase of merchandise from Emotiva, and cannot be used for freight charges.

When a Product or part is repaired or replaced, any replacement item becomes your property and the replaced item becomes Emotiva's property. When a refund or credit is given, the Product for which the refund or credit is provided must be returned to Emotiva and becomes Emotiva's property.

What is not covered by this warranty?

This warranty does not apply: (i) to damage caused by use with products not manufactured by Emotiva, where the non-Emotiva product is the cause of the damage; (ii) to damage caused by service or maintenance performed by anyone who is not a representative of Emotiva; (iii) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes; (iv) to a product or part that has been modified after its retail purchase, where the modification caused or contributed to the damage; (v) to consumable parts, such as batteries or failure of or damage to the Product caused by batteries; (vi) if any Emotiva serial number has been removed or defaced on the product; (vii) glass or plastic panels, cabinetry, trim or other appearance items; (viii) cosmetic wear or damage to remote controls by user.

EMOTIVA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OR RELATED TO ANY DEFECTS IN OR DAMAGES TO ITS PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

How do you get service?

In order to make a claim under the Warranty, you must:

1. Call or e-mail a customer service representative at 1-877-EMO-TECH (1-877-366-8324) or support@emotiva.com. You must provide a description of your problem, the serial number of the Product for which the warranty claim is being made, and the original purchase date.
2. Then, you will be provided with a warranty service authorization number ("WS").
3. Next, you must ship the Product to the following address, with the WS written in large, bold numbers on the outside of the box, and with the letters "WS" written before the number, for example: WS1234. Parcels arriving without a WS number on the outside of the box will be refused. The customer pays for the shipping to Warrantor. Warrantor pays for the shipping back to the customer within the continental United States only. Customer is responsible for shipping charges on all other warranty claims.

Emotiva Audio Corporation
Attn: Repair Department
139 Southeast Parkway Court
Franklin, TN 37064

Units will be refused by Emotiva for the following:

- Product was sent without the WS#
- Product was sent with inadequate packaging.
- Product was damaged in transit.
- Product was shipped collect for shipping charges.

How does state law apply?

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

What if my product is damaged on the way to you?

Emotiva is not liable for damages that may incur while an item is in transport to us. Please purchase insurance when you ship your item. If your Product was not adequately packaged, we will refuse receipt and the damaged package will be returned to you at your cost. If you do not have the original Emotiva Audio packaging, please check with our sales department to purchase replacement-shipping cartons.

How does the Warranty and service apply to international orders?

The Product Warranty is only valid in the country where the Emotiva product was originally shipped via an authorized dealer, distributor, or direct from the Emotiva factory. The Warranty is subject to change at any time depending on the laws and regulations within your specific country. Please check with your distributor for a complete understanding of the warranty in your county.

If you purchased your Emotiva Product outside of the USA and wish to have it serviced at the factory, all freight charges are your responsibility. If you do not have an authorized distributor or repair center in your country, your Product must come back to the Emotiva USA factory for warranty service.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

What if my product is damaged on the way to you?

Emotiva is not liable for damages that may incur while an item is in transport to us. Please purchase insurance when you ship your item. If your Product was not adequately packaged, we will refuse receipt and the damaged package will be returned to you at your cost. If you do not have the original Emotiva Audio packaging, please check with our sales department to purchase replacement-shipping cartons.

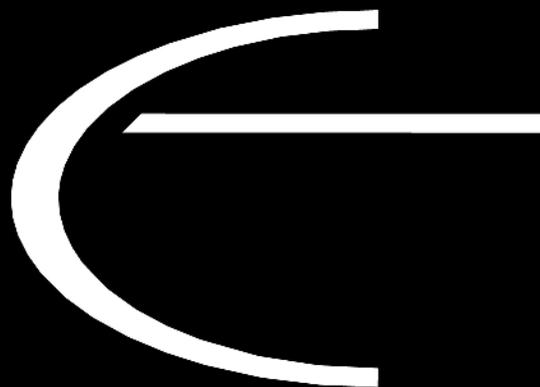
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If you purchased your Emotiva Product outside of the USA and wish to have it serviced at the factory, all freight charges are your responsibility. If you do not have an authorized distributor or repair center in your country, your Product must come back to the Emotiva USA factory for warranty service.

Notes

All information contained in this manual is accurate to the best of our knowledge at the time of publication. In keeping with our policy of ongoing product improvement, we reserve the right to make changes to the design and features of our products without prior notice.



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