

The Outlaw LCRv2 Left/Center/Right Channel Loudspeakers



Owner's Manual

Version 1.0

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Specifications are those in effect at the time of printing. Outlaw Audio reserves the right to change specifications or designs at any time without notice or liability to modify or upgrade units previously sold.

For Future Reference

Record your LCR Loudspeaker serial number and date of purchase here. It is found on the back panel.

Model Number _____

Serial Number _____

Date of Purchase _____

The Outlaw LCRv2 Left/Center/Right Channel Loudspeakers

Congratulations on your purchase of our Outlaw Audio LCRv2 loudspeakers. You now own one of the most advanced LCR speakers available. The Outlaw (Left/Center/Right) Loudspeakers provide remarkable performance in their price range. True to even the most demanding source material, your new Outlaw LCRs won't skip a beat.

After a "break-in" period (we recommend a minimum of 20 hours) you'll discover a sound that maintains its image regardless of where you are in the room, a natural timbre that sustains the important midrange integrity of the very best recordings, and a level of flexibility unrivaled in other LCR style speakers.

The custom drivers, designed for a cabinet of this size, allow for ideal performance, no matter the speaker orientation, without the need for a crossover switch! The LCR can handle high output levels and integrates perfectly with our bookshelf loudspeakers, the BLSv2, to allow for a full surround experience where the sonic signature doesn't change across speakers. This is critical to maintain the proper panning of sound effects in your listen environment.

The many features of the Outlaw LCRs include:

- A custom designed soft dome tweeter for smooth treble
- 2 long throw 5-1/4" custom woofers for deep, controlled bass extension.
- Furniture grade black satin finish
- True Bi-amp/Bi-wire design using precision five-way binding posts with separate crossovers for woofer and tweeter.
- A proprietary 3dB Boundary Compensation switch for wall and corner placement.

We encourage you to carefully follow the setup information provided in the following pages to ensure you get every last note of audiophile performance from your new speakers.

Unpacking

The carton and packing materials used in shipping your new speakers were specially designed to cushion it from the shocks and vibrations of shipping. We strongly suggest that you save the carton and packing materials to use if you move, or if the unit needs to be shipped back to us for any reason.

To minimize the size of the carton in storage, you may wish to flatten it by carefully opening the top and bottom flaps and folding the carton flat. Packing materials that cannot be collapsed should be saved along with the carton in a plastic bag.

Accessories

After unpacking the LCRv2 please confirm that the following accessories have been included.

- 1 Black Metal Grill (pre-installed)
- Owner's Manual

If any of the above is missing from your shipment, please contact Outlaw Audio immediately at 866-OUTLAWS.

The LCR Controls and Connections

A Boundary Switch

This switch provides a (-3dB) reduction in upper bass frequencies to maintain a linear response for wall loaded speaker placements.

B High Frequency Speaker Binding Posts

Speaker level inputs; connect amplifier to these or low frequency terminals.

C Low Frequency Speaker Binding Posts

Speaker level inputs; connect amplifier to these or high frequency terminals.

D Binding Post Jumpers

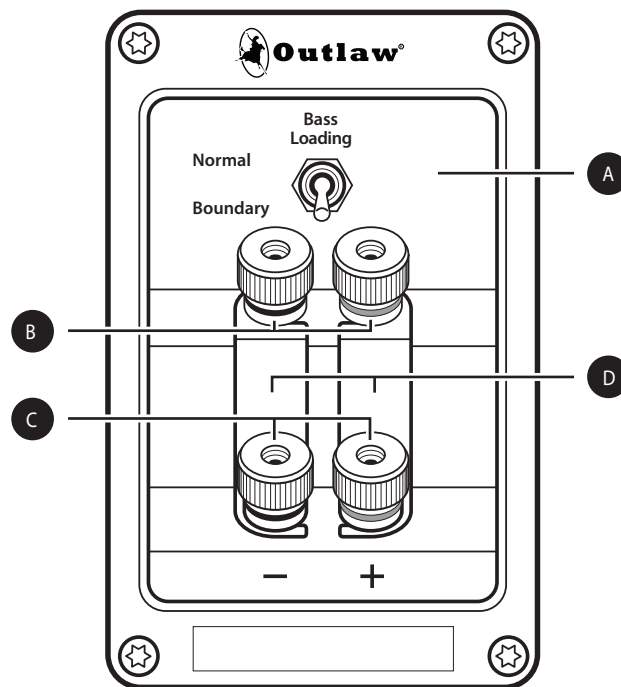
These connect the two pairs of binding posts and should remain installed unless using a bi-wire or bi-amplify connection scheme.

Setup Guide

Connecting To Your System

To get the maximum performance from your new Outlaw LCR system it must be correctly connected, positioned properly within the room and configured to match your listening environment. There are three primary connection styles compatible with your Outlaw LCRs. These include the standard one wire (per) speaker connection, bi-wiring which uses either a pair of speaker wires or a custom bi-wire cable and a single amplifier channel per speaker, or bi-amplifying which uses two speaker wires and two power amplifiers per speaker.

Loudspeaker Rear Panel



Preparing the Speaker Wire for Installation

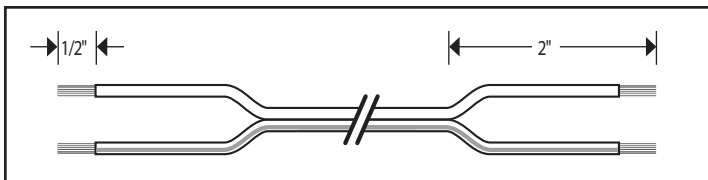
High quality speaker wires are essential for optimal performance. We recommend the use of a heavy gauge (16 or heavier) oxygen-free, multi-stranded copper wire. For lengths over 25 feet, a heavier gauge of wire should be used; as with other gauge based conductors, the lower the number the heavier the gauge.

When purchasing wire, look for cabling that clearly marks polarity on one conductor. Often speaker wire manufacturers will use a single solid line or their logo on one side for this purpose. This will make connections easier later on. Most installers consider the marked conductor their "positive" lead.

Since your Outlaw LCR offer true five-way binding posts, you can use speaker wires that have terminated ends such as banana plugs, spades, or pins. When using spades, they must be compatible with the larger 5/16" posts.

To prepare your non-terminated wire for installation, you will need to perform the following tasks:

1. Split each end of the speaker wire in half leaving approximately two inches of "separate conductors" as shown below.
2. Remove a 1/2" of insulation from each conductor, also shown below.
3. Separately twist each stranded wire together ensuring that all four leads are kept apart.



Speaker Connection Precautions

When using one of the following options to wire your Outlaw LCR Loudspeakers to your amplifier/receiver, please be sure that you take the following precautions before and after making the connections.

POWER OFF

To prevent damage to your amplifier or speakers and avoid the risk of electrical shock always disconnect the power to your receiver or amplifier when making any system connections.

MAINTAIN POLARITY

Remember that polarity must be maintained between speaker and amplifier, ie. positive terminal (red post) on speaker to positive terminal on power amplifier.

PREVENT SHORTS

Check terminal posts on both connections (speaker and amplifier) to ensure that loose copper strands have not been allowed to "short" the binding post pairs. Any loose strands that touch both the positive and negative terminal posts must be removed before powering up the amplifier. Failure to do so may result in damage to the amplifier or speaker.

Option 1:

Connecting to a system with a standard single speaker wire.

This is the most common way to connect an individual speaker to a power amplifier or receiver. A standard 16-gauge speaker wire is used to join the amp and speaker together.

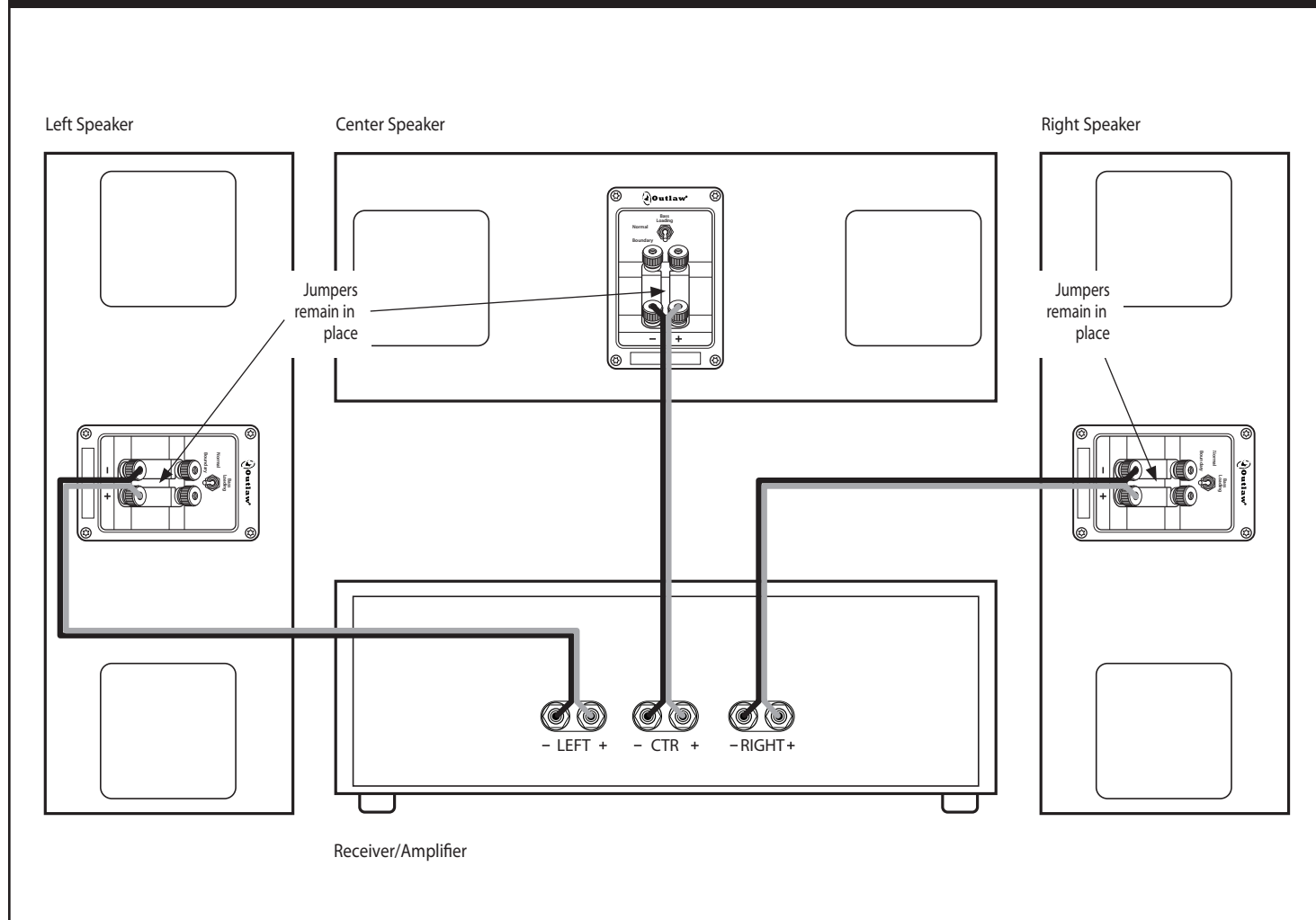
To connect an individual speaker with a single speaker wire, carefully follow the steps below:

1. Turn off all system components and unplug the receiver or amplifier.
2. Loosen one set of the Outlaw LCR binding posts.

NOTE: Be sure that the binding posts jumpers remain installed.

3. Insert the appropriate polarity wire through the postholes on the binding post.
4. Carefully tighten the binding post until snug. Over tightening will strip the binding post and prevent a solid connection.
5. Repeat steps 2-4 at the amplifier binding post with the opposite end of the speaker wire.

Option 1: Standard Connection



Option 2: Connecting to a system in a bi-wire scheme.

Some audiophiles prefer to use a bi-wire scheme when connecting their speakers and amplifiers.

To connect your speakers using the bi-wiring option, carefully follow the steps below:

1. Turn off all system components and unplug the receiver or amplifier.
2. Connect both pairs of speaker wire on one end by twisting the positive (marked) copper ends together as shown below.
3. Repeat step 2 for the negative (unmarked) copper leads on the same end of the speaker wire, also shown below.

NOTE: Some speaker wire manufacturers offer a speaker wire specifically designed for bi-wire applications. With these wires, Steps 2 and 3 are unnecessary.

4. Loosen your receiver or amplifier's corresponding binding posts.

5. Insert the appropriate polarity wire through the postholes on the amplifier's binding post.

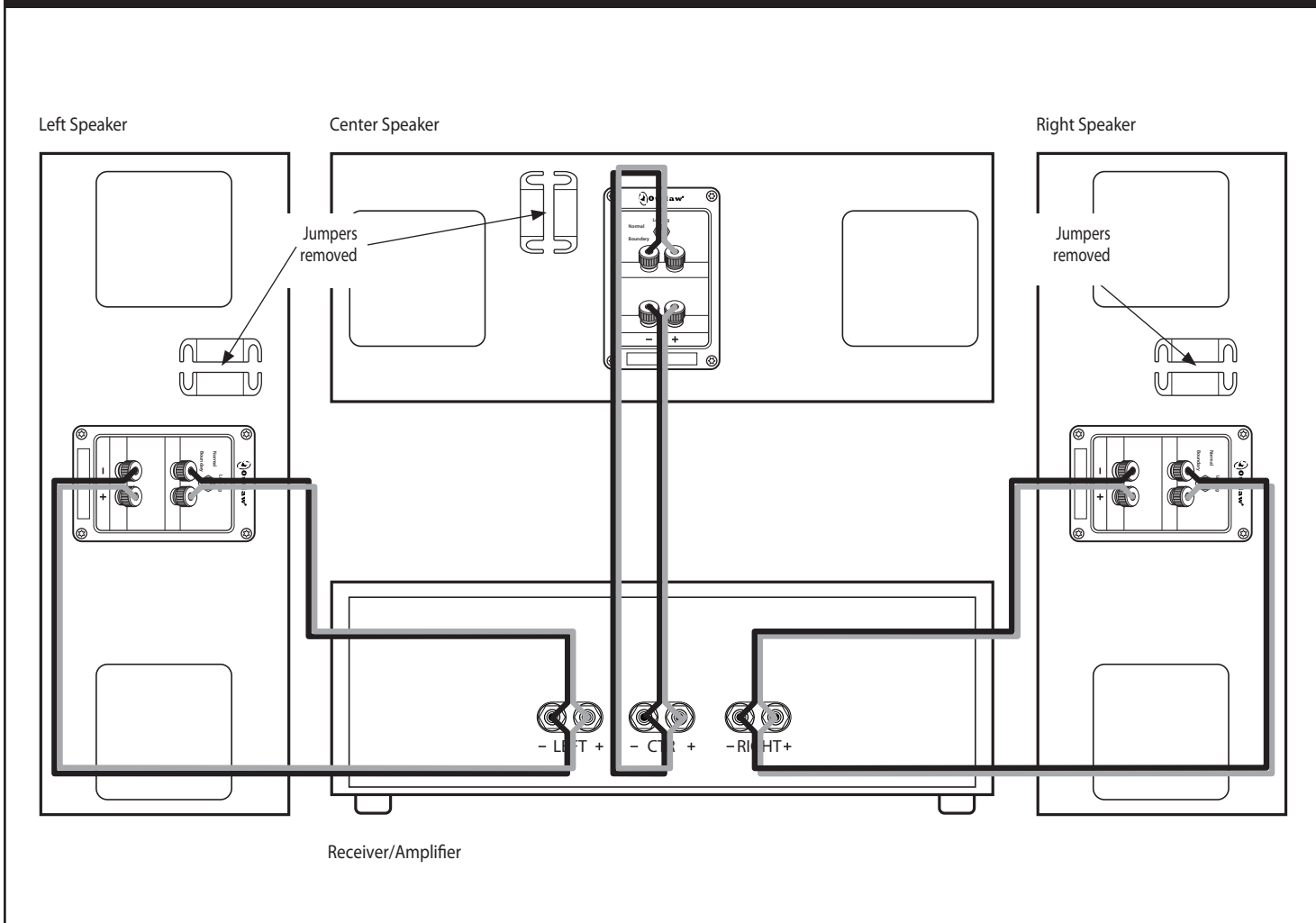
Be sure to use the "double speaker wire" connection you have just created. The opposite end of this wire will have four leads, a pair for each set of speaker binding posts.

6. Carefully tighten the binding post until snug. Over tightening will strip the binding post and prevent a solid connection.
7. Loosen both sets of the Outlaw LCR's binding posts.
8. Remove both binding posts jumpers.

CAUTION: Failure to remove these jumpers using this connection scheme will result in damage to your power amplifier and or speakers.

9. Select one speaker wire lead to connect to the high frequency binding posts.
10. Insert the appropriate polarity wire through the postholes on the binding post.
11. Carefully tighten the binding post until snug. Over tightening will strip the binding post and prevent a solid connection.
12. Repeat steps 9-11 for the low frequency binding posts.

Option 2: Bi-Wired Connection



Option 3: Connecting to a system in a bi-amplify scheme.

In a bi-amplified wiring scheme, the user provides separate amplification for both sections (high frequencies and low frequencies) of the speaker.

Some audiophiles tend to prefer this method of connectivity as it ensures that the more “power hungry” woofers are not limited by the additional power demands of the high frequency portion of the speaker while still maintaining the EMF benefits of a bi-wire scheme.

NOTE: In a bi-amplify scheme, it is necessary to use matching amplifiers for both high frequency and low frequency connections, otherwise an imbalance will occur between each portion of the speaker. This imbalance will negatively impact performance. Also, using the “A + B” terminals on a receiver does not offer an improved connection over using a single speaker wire from the “A” terminals. Separate amplifier channels are required to receive the benefits of bi-amplification.

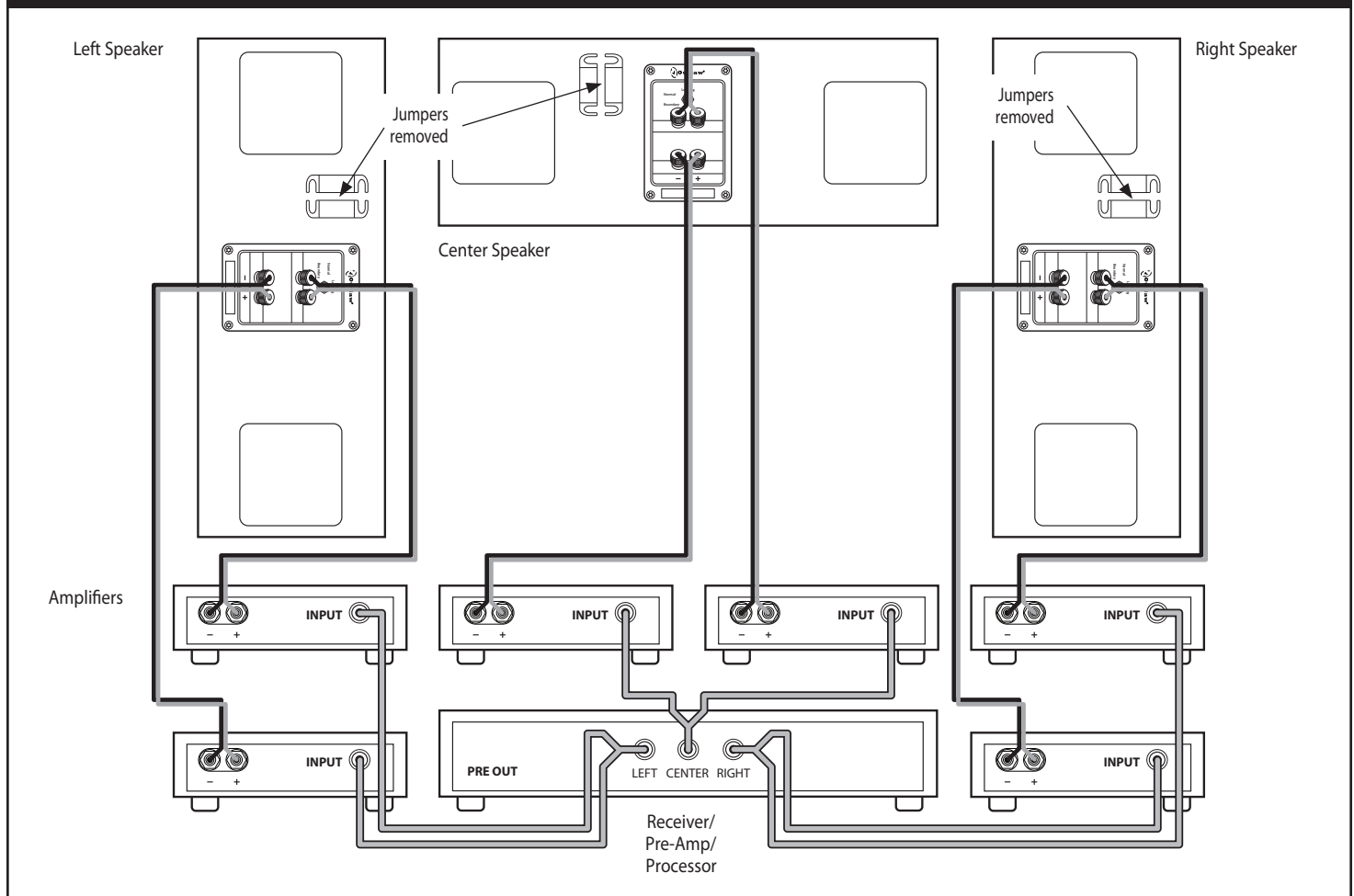
1. Turn off all system components and unplug the receiver/pre-amp and amplifiers.
2. Connect a Y-adapter to the corresponding pre-amp output on your processor.

3. Connect the two amplifier channels you intend to use, one to each of the two outputs the Y-adapter has created.
4. Loosen the corresponding binding posts on the power amplifier you plan to use for the high frequency portion of your Outlaw LCR.
5. Insert the appropriate polarity wire through the postholes on the amplifier's binding post.
6. Carefully tighten the binding post until snug. Over tightening will strip the binding post and prevent a solid connection.
7. Repeat steps 3-6 for the power amplifier you intend to use to drive the low frequency portion of your Outlaw LCR.
8. Loosen both sets of the LCR's binding posts.
9. Remove both binding post jumpers.

CAUTION: Failure to remove these jumpers using this connection scheme will result in damage to your power amplifier and or speakers.

10. Connect your “high frequency” amplifier to the high frequency binding posts on your Outlaw LCR by inserting the appropriate polarity wires through the postholes on the binding post.
11. Carefully tighten the binding posts until snug. Over tightening will strip the binding post and prevent a solid connection.
12. Repeat steps 10-11 for the low frequency portion of your Outlaw LCR.

Option 3: Bi-Amplified Connection



Notes on Speaker Placement

The following suggestions should be adhered to as closely as possible. While each listening room imparts its own sonic compromises, these guidelines will help you achieve the greatest performance from your Outlaw LCR system. The decisions you make regarding the placement of the speakers will impact the orientation and control settings of the LCRs as well. Also, if wall mounting your LCRs, optional mounting brackets are available from Outlaw Audio.

Placement

- Placing your speakers at equal distances from the listening position, thus creating an “equilateral” triangle, will help create an optimal stereo imaging environment. See diagram below.

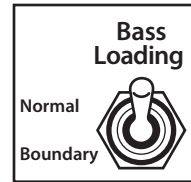
- Soundstage is directly affected by “toe-in”. Pointing the Outlaw LCR directly at the “sweet spot” creates the most accurate soundstage. See diagram below.

However, room anomalies may require that a speaker be toed further in or out. Toeing a speaker out (adjusting the angle of the speaker outward including straight forward) will widen your soundstage. The opposite will occur when toeing a speaker in.

- Proximity to walls and corners will increase lower frequency output. When placed too close this additional lower frequency output may sound unnatural or bloated. Whenever possible place your speakers no closer than two feet to the nearest wall.

Setting the Outlaw LCR's Controls

Boundary Compensation Switch



Depending on the proximity of your Outlaw LCR to a wall or corner, you may find that certain upper bass frequencies sound “boomy”. At these critical frequencies, this added energy manifests itself as “chestiness” particularly in male voices. To compensate for these compromised, but often-necessary speaker placements,

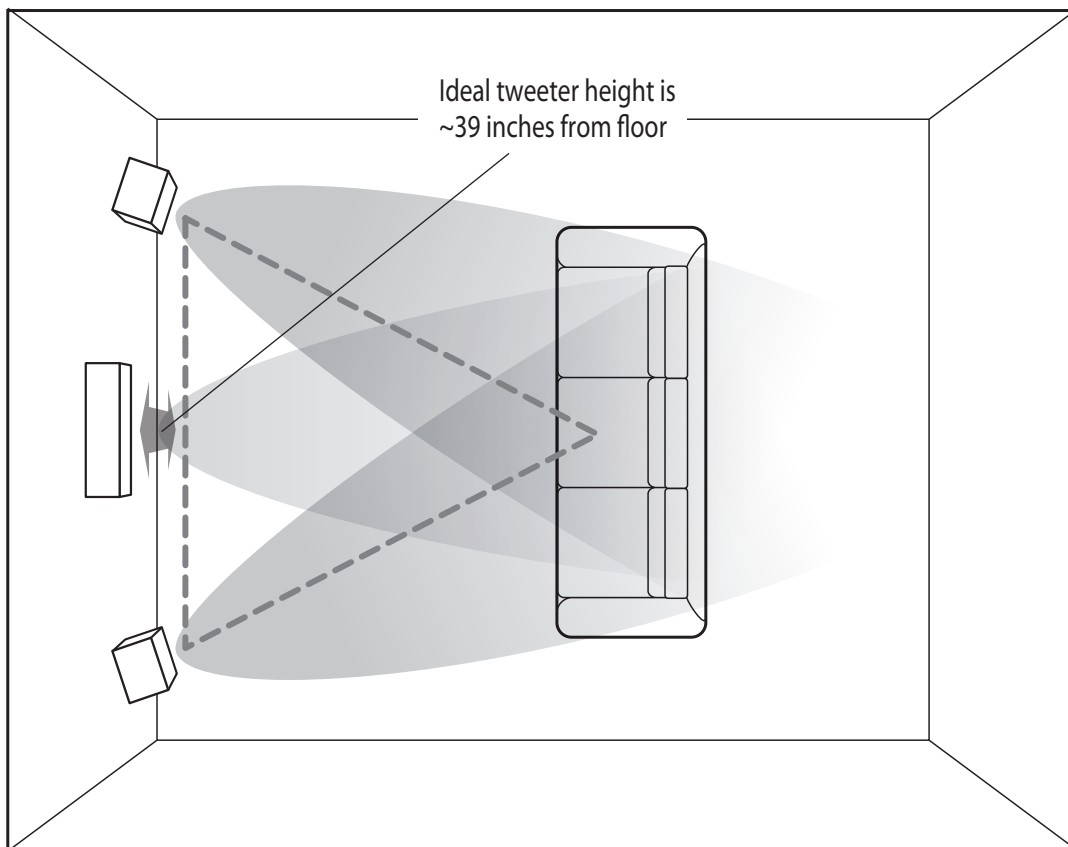
the Outlaw LCR provides a custom Boundary Compensation Circuit.

After carefully calculating the effects of wall proximity and corner loading on the Outlaw LCR, we have integrated a Boundary Compensation circuit for:

- Open air placement
The speaker is more than 24 inches away from all walls.
- Single wall/Corner placement
The speaker is within 24 inches of a boundary.

The available settings allow you to tailor the behavior of your Outlaw LCR for optimal performance under most listening room conditions. Using the following guidelines, adjust each speaker according to its individual environment. Keep in mind that this setting can and should vary by speaker when necessary.

When the Outlaw LCR is no closer than 24 inches to any wall; the Boundary switch should be set to “Normal”. If the Outlaw LCR is within 24” of a boundary, set the Boundary switch to “Boundary”.



External System Adjustments

Crossovers for Use with Powered Subwoofers

As a standalone speaker, the LCRv2 will provide a neutral, "true-to-source" reproduction of your audiophile grade recordings.

For those seeking that last 2 octaves of low end audibility you may to consider the addition of a powered subwoofer. Proper integration of sub and speaker begins with the careful selection of the crossover.

Some receivers and processors supply a series of crossover options to integrate your subwoofer. If you are using an Outlaw processor or receiver the optimal setting is 80Hz.

For other systems, you will need to consider the Outlaw LCR's +/-3dB down point of 70 HZ. Based upon the prevailing use of symmetrical fourth order networks in receivers and processors we suggest choosing the closest crossover point provided by your system that is equal to or greater than 80Hz.

Volume Level

When available, match the levels of all of your speakers, including the Outlaw LCR, as described in your receiver or processor owner's manual. We recommend using an SPL meter. When using test tones, measure from the listening position and set the meter to 75dB "C" weighted, slow.

Surround Sound Considerations

A great speaker has many characteristics. Most importantly, it should have a linear response, with a large soundstage and precision imaging while at the same time be capable of reproducing considerable dynamics without sounding strained. If these design goals are accomplished, the speaker will be at home both in music-only and full in-home theater systems.

With the above in mind, we offer the following advice when integrating your Outlaw LCRs in a 5.1, 6.1 or 7.1 surround sound system.

- Tweeter height should remain as close to even as possible between your front left, center and right channel speakers. This helps maintain "timbre" which is the characteristic of a sound that separates itself from other sounds of the same volume level and pitch.

When a sound effect pans from one speaker to the next, you'll want your speakers' timbre to match as closely as possible. This will ensure that whatever instrument or sound effect you are hearing sounds the same, regardless of which speaker in your system it is emanating from.

- When using "direct radiating" speakers like the Outlaw LCRs in the surround position they should be placed just behind the listening position. While timbre remains very important, these speakers should be placed approximately 1-2 feet above the listener's ears to create a more diffused sound field.
- Surround back channels, more commonly used in DD-EX™ and DTS-ES™ soundtracks should be placed at the same height as the surround channels. If you are using a pair of speakers in the surround back position they should each be placed approximately 30 degrees off of the center axis. If only a single surround back speaker is used, it should be placed on center axis.

- Today's blockbuster movie soundtracks take advantage of a dedicated subwoofer channel called the LFE (Low Frequency Effects). For this reason, we advocate the use of a powered subwoofer like our LFM series subs. Placement of the subwoofer will depend on room acoustics, so you'll want to consult with your subwoofer manufacturer for tips on getting the most from your sub. The Outlaw series subwoofer manuals, which are available as a free download at www.outlawaudio.com, all share an excellent primer on subwoofer placement. We invite you to use that information to maximize your system's performance.

Care of Your Speakers

Exceptional efforts were taken during the design and manufacture of the Outlaw LCRs so that they could provide you with a lifetime's worth of music and movie reproduction. Proper care along the way will ensure that they always look as great as they sound.

We recommend using a lint-free cloth to clean your speaker's cabinets. If necessary you may moisten that cloth with plain water. Special care should be taken to avoid getting water on the dome tweeter or woofer. Do not use any other solvents or chemicals as damage may occur.

Troubleshooting

PROBLEM :

No output from the speakers

SOLUTIONS :

- Check to ensure that your amplifier is powered on.
- Check to make sure your source (CD, DVD etc.) is actively outputting a signal.
- Check to ensure speaker wires are properly connected.

PROBLEM :

Amplifier shuts down at power up or during high volume playback

SOLUTIONS :

- Check for a shorted speaker wire connection. This is observed as speaker wire that touches both the positive and negative (red and black) binding posts at the same time. This can occur at the amplifier or the speaker's binding posts.
- Check to make sure your speaker wires are connected properly.

PROBLEM :

Woofer or tweeter sounds "distorted"

SOLUTIONS :

- Check bass and treble controls and return them to flat.
- Reduce volume of playback as amplifier may be "clipping"

Specifications

SENSITI VITY		87.5dB
RATED AMPLIFIER POWER		50-300watts
IMPEDANCE		4 Ohms
FREQUENCY RESPONSE		70Hz-22kHz
DRI VERS	Tweeter	1" Custom Silk Dome designed and manufactured with precision parts
	Woofer	2 x 5-1/4" Drivers
LINEAR COIL TRAVEL		10mm p-p
BOUNDARY COMPENSATION SWITCH		0dB, -3dB starting at 400Hz where it plateaus at 250Hz and remains flat to resonance
DIMENSIONS (HxDxW)		19" x 8-7/8" (w/ grille) x 7-1/4"
WEIGHT		20 lbs

The Outlaw Audio 30-Day Satisfaction Guarantee

This product is guaranteed to satisfy all your needs for a high performance loudspeaker system. If for any reason, you are not completely satisfied with it, please contact us at 866-OUTLAWA (688-5292) within 30 days of receipt of the unit and you will receive a return authorization.

Please save all of your packing material in that the speakers can get damaged in shipping without proper protection. We recommend that you keep

the packing (even after 30 days) so that if you ever move, the speakers will be adequately protected. Original box and packing is required to return the product for a credit.

If you decide to return the speakers, your only cost will be the original shipping charge. When your loudspeakers arrive, we will inspect them to insure that they were shipped back to us in original condition. Upon satisfactory inspection, we will issue a full credit for your original purchase price.

Outlaw Audio Limited Warranty

This warranty protects the owner of the Outlaw LCRv2 speaker (the PRODUCT) for five (5) years from the date of purchase.

This warranty covers all defects in material and workmanship with the following specific exceptions. These are:

- Damage caused by improper installation or adjustment
- Damage caused by accident, unreasonable use or neglect
- Damage from failure to follow instructions contained in this Owner's Manual
- Damage from the performance of repairs by someone not authorized by Outlaw Audio
- Any unit on which the serial number has been defaced, modified, or removed
- Damage occurring during shipment
- Units which have been altered or modified in design, appearance or construction

This warranty covers only the actual defects within the PRODUCT itself. IT DOES NOT cover costs of installation in (or removal from) a fixed installation, or normal set-up, claims based on any misrepresentation by the seller, or performance variations resulting from installation related circumstances such as signal quality, AC power or incompatibilities with speakers and/or other system components.

During the warranty period, Outlaw Audio will, at its option, either repair the defect, or replace the defective product, or the defective parts, or components thereof at no charge to the owner for parts and labor covered by this warranty. If necessary repairs are not covered by this warranty, or if a unit is examined which is not in need of repair, you will be charged for the repairs and/or the examination. If non-warranted repairs are needed, we will notify you of the estimated cost and ask for your authorization to perform said repairs.

You must pay shipping charges incurred in getting your Product to the factory. We will pay the return shipping charges if the repairs are covered by the warranty. Please save the original shipping cartons as the unit MUST be returned in the original carton and packing.

(Replacement cartons are available at a modest charge.)

If your product needs service, please call Outlaw Audio Inc. at 866-OUTLAWS (688-5297).

You will need to present the original bill of sale to establish the date of purchase. In the event that the proof of purchase cannot be established with the original receipt, the warranty period shall be determined by the earliest date of manufacture shown on the unit, provided that the serial number label has not been altered in any manner, or by our records relating to that serial number.

In the event that you wish to return your Outlaw speaker back to us, for any reason, please call to arrange for a Return Authorization Number. This will insure that your problem is discussed with a service technician who will determine if there is a quick solution to your problem.

Outlaw Audio shall not be liable for, in any way responsible for, any incidental or consequential damages of any kind. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion of incidental or consequential damages, therefore, the limitations and exclusions stated herein 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.

THERE ARE NO WARRANTIES GIVEN BY OUTLAW AUDIO WHICH EXTEND BEYOND THE DESCRIPTION GIVEN HEREIN. ANY IMPLIED WARRANTIES OF FITNESS FOR PURPOSE SOLD, MERCHANTABILITY, DESCRIPTION, QUALITY OR ANY OTHER MATTERS ARE LIMITED TO THE TERMS OF THE EXPRESSED LIMITED WARRANTY STATED HEREIN.

Products are sold on the basis of specifications applicable at the time of sales. Outlaw Audio shall have no obligation to modify products once they have been sold.

This warranty is applicable only in the United States.

For applicability in other countries, please call Outlaw Audio.



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