

Criton 1TD-X to Veritas One Conversion Instructions

What You'll Need

At a minimum:

1. Electric Drill (1/2" & 7/64" bit)
2. Soldering Iron
3. Wire Cutters/Strippers
4. Crimping Tool
5. Hammer or Mallet

You might also find it beneficial:

1. Utility Knife (for trimming foam)
2. Pliers

Disassembly

1. Remove the screws securing the tweeter to the cabinet and carefully pull the tweeter out of the baffle. Disconnect the terminals from the tweeter. *(figure 1)*

2. Remove the screws securing the woofer to the cabinet and carefully pull the woofer out of the baffle. Disconnect the terminals from the woofer. *(figure 2)*

3. Remove the foam panels from inside the cabinet to gain access to the crossover board. *(figure 3)*

4. Disconnect the crimp terminals from the binding post connectors on the rear panel.

5. Remove the screws securing the crossover board to the bottom panel of the cabinet and carefully remove the board from the enclosure. *(figure 3)*



FIGURE 1



FIGURE 2

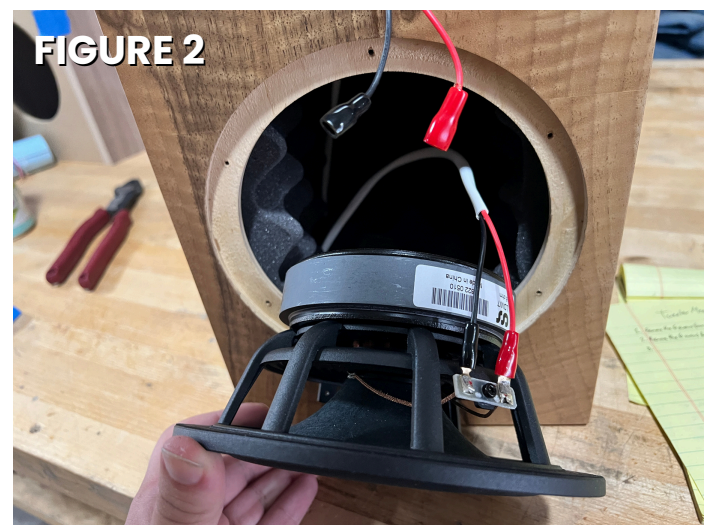
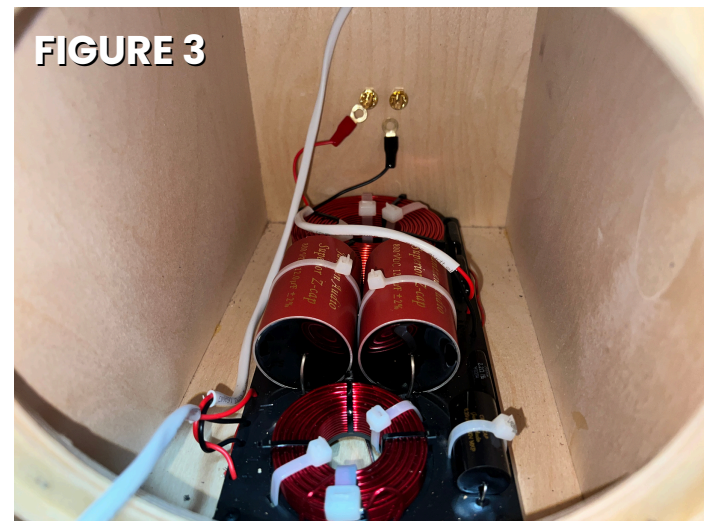


FIGURE 3



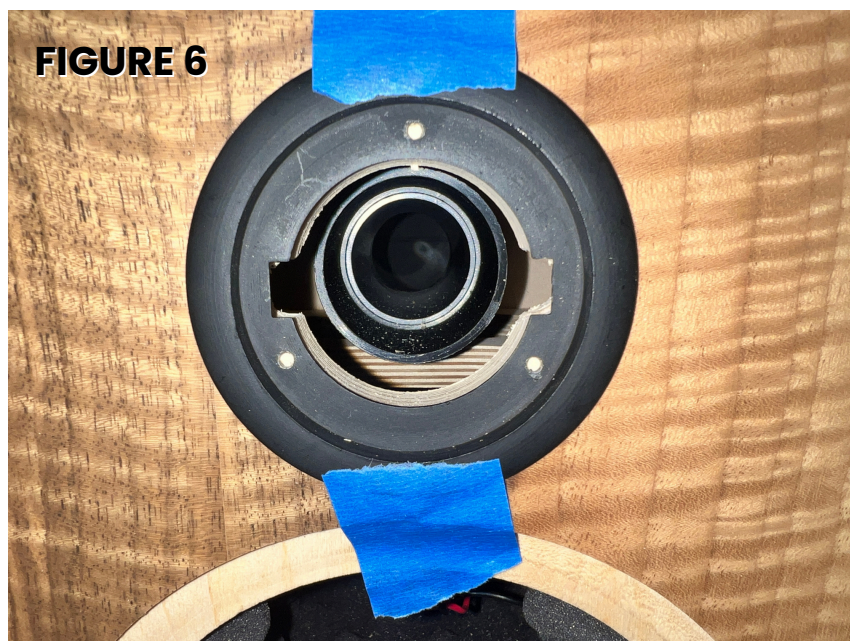
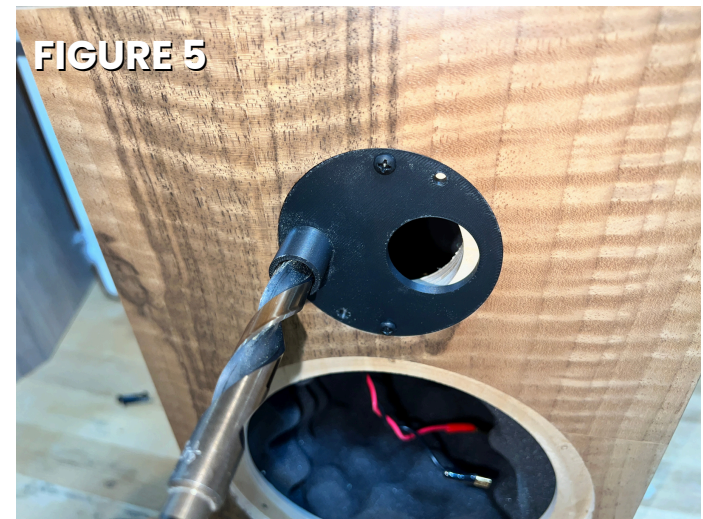
Tweeter Modification

1. Attach the tweeter template to the existing tweeter opening using two opposing mounting holes (commonly the 12:00 and 6:00 positions) to ensure proper alignment. (figure 4)

2. Drill out the first 1/2" hole for the tweeter wire notch using the template as a guide.

3. Rotate the template 180° and drill the second 1/2" hole for the opposite wire notch. (figure 5)

4. Using the tweeter spacer as a guide, align the notches with the top mounting position and drill the three 7/64" pilot holes for mounting. (figures 6 & 7)



Crossover Assembly

1. Verify all crossover components and boards are present (*figure 8*).

Woofer: (figures 9 & 10)

- 3mH Inductor (x2)
- 0.22 μ F Capacitor (x2)
- 6.2 μ F Capacitor (x2)
- 2 Ω Resistor (x2)

Tweeter: (figures 11 & 12)

- 0.2mH Inductor (x4)
- 6 Ω Resistor (x2)
- 8 Ω Resistor (x2)
- 10 Ω Resistor (x2)
- 5.6 μ F Capacitor (x2)
- 8.2 μ F Capacitor (x2)

2. Place each component in its designated location on the new crossover boards using the provided wiring diagram and board layout as a guide.

Orientation does not matter as long as component leads can reach their designated through-holes.

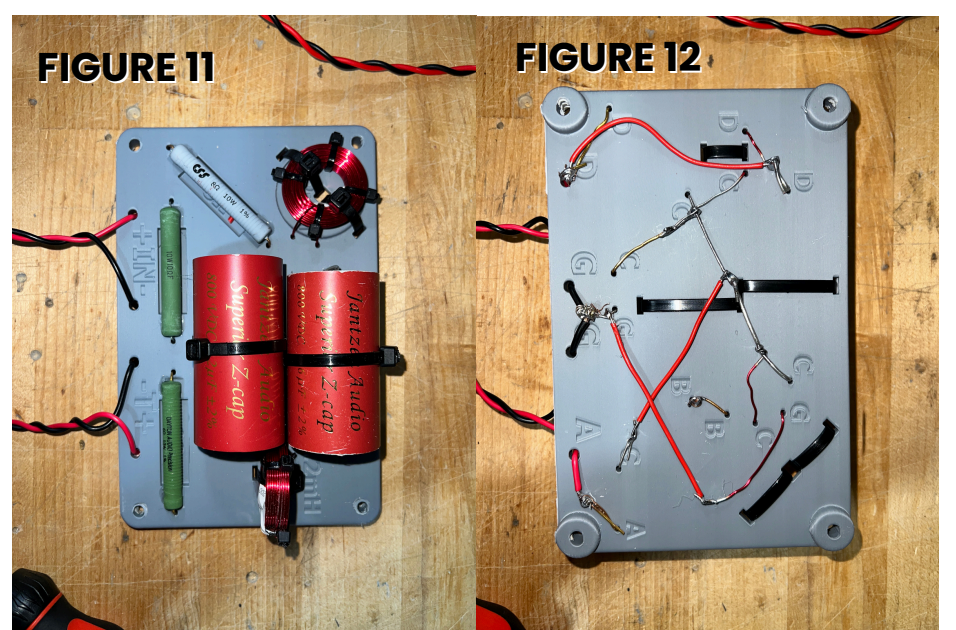
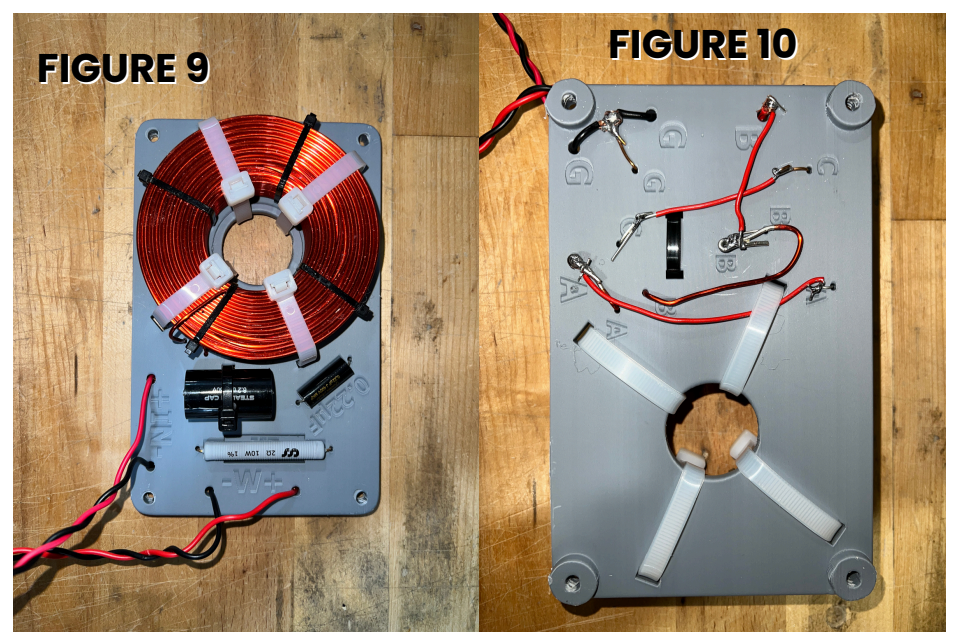
3. Insert all component leads through the board and secure components in place before soldering.

4. Connect the woofer and tweeter wires to their designated locations on the crossover boards.

5. Cut 3 lengths of the white wire, long enough to reach from:

1. The binding posts on the rear panel to the crossover board (15")
2. The woofer terminals to the crossover board (17")
3. The tweeter terminals to the crossover board (21")
4. Remove 4" of the outer white insulation from each end of each wire.

6. On the backside of each board, solder all component leads at their designated connection points. (e.g., A to A, or B to B to B).



Ensure that no bare wires or leads are contacting unintended connections.

NOTE: Inductors have an insulating coating. Do **NOT** attempt to solder to coated wire. Only solder to exposed/tinned leads to ensure proper connection. The coated (red) wire will not accept solder, while the exposed (silver) leads are intended for connection.

Input Wire Assembly

1. Route input wires to both crossover boards.
2. Combine the input wires from both crossover boards as follows: (*figure 13*)
 - Twist together both positive (IN+) wires
 - Twist together both negative (IN-) wires
3. Secure each twisted pair using appropriately sized crimp connectors.

NOTE: Your kit includes multiple sizes of quick-connect female terminals for driver and binding post connections. The black connections are for the negative terminals, and the red connections are for the positive terminals. Check all quick connects and match them to their appropriate locations before crimping to any wires. The larger terminal on the driver is positive. (*figure 14*)

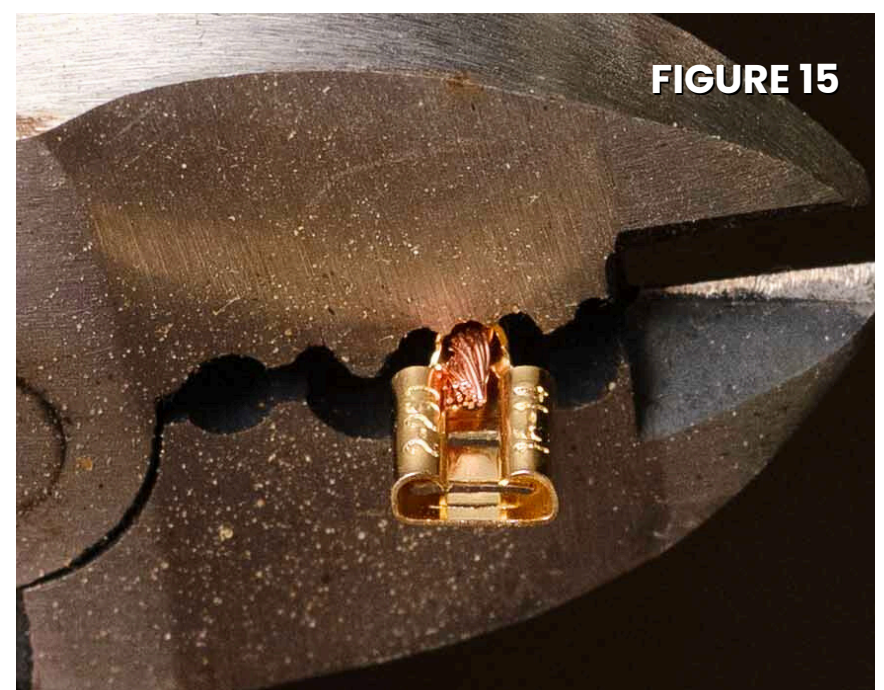
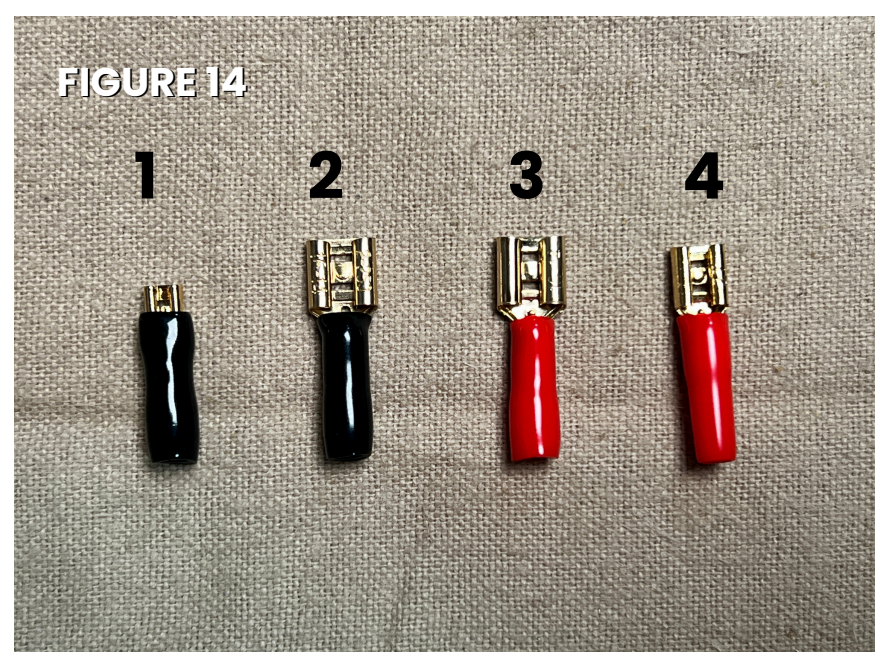
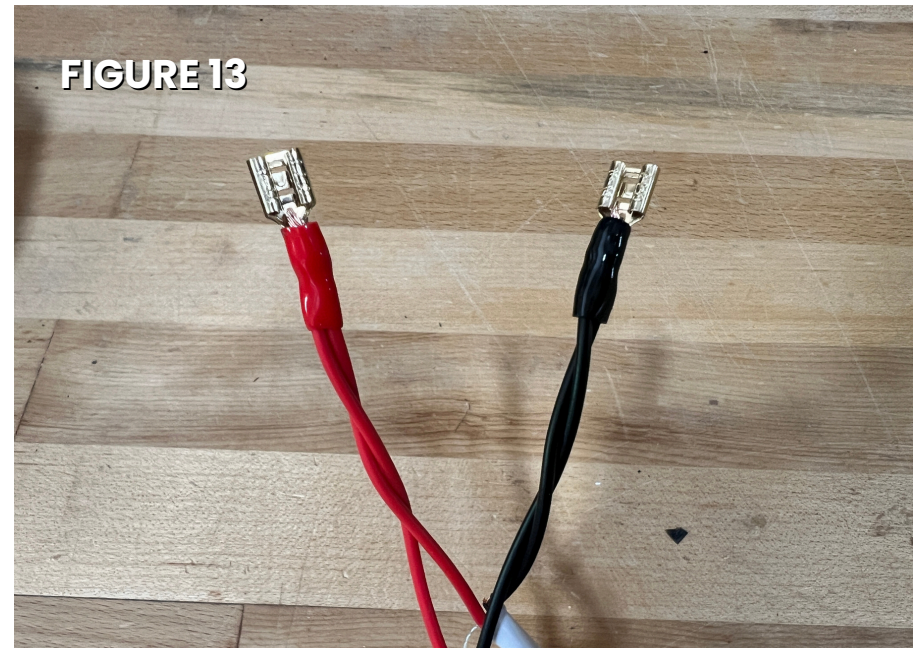
1. Black Small - Negative Woofer & Negative Tweeter
2. Black Large - Negative Binding Post
3. Red Large - Positive Tweeter & Positive Binding Post
4. Red Medium - Positive Woofer & Positive Tweeter

NOTE: Crimp connectors may need to be slightly opened to accommodate multiple wires. Ensure a tight mechanical connection before crimping. Soldering the connection is not required but it can straighten the connection. (*figure 15*)

4. Attach the binding post ring terminals to the combined input wire connections:
 - Red wires to the positive terminal
 - Black wires to the negative terminal

NOTE: Both crossover boards share the same input signal and are connected in parallel through the combined IN+ and IN- wiring.

5. Verify all connections are secure and that no bare wire is contacting unintended surfaces.



Pre-Installation Check

1. Inspect all solder joints to ensure solid mechanical and electrical connections. There should be no movement in the joint itself.
2. Confirm that all components are mounted securely and that no leads are loose or contacting adjacent connections.
3. Ensure all wiring maintains correct polarity (positive to positive, negative to negative).

Crossover Installation

NOTE: Refer to the updated crossover wiring diagrams for all connections.

1. Place the new crossover boards into the cabinet in the following order: (*figure 16*)
 - Woofer crossover board positioned toward the rear of the cabinet
 - Tweeter crossover board positioned toward the front of the cabinet
2. Ensure both boards are seated properly and fit snugly within the enclosure.
3. Secure the crossover boards to the bottom panel using appropriate screws. Drill pilot holes if necessary. Use caution not to drill through the cabinet.
4. Reconnect the terminal rings to the binding post connectors on the rear panel:
 - Positive to the left terminal
 - Negative to the right terminal

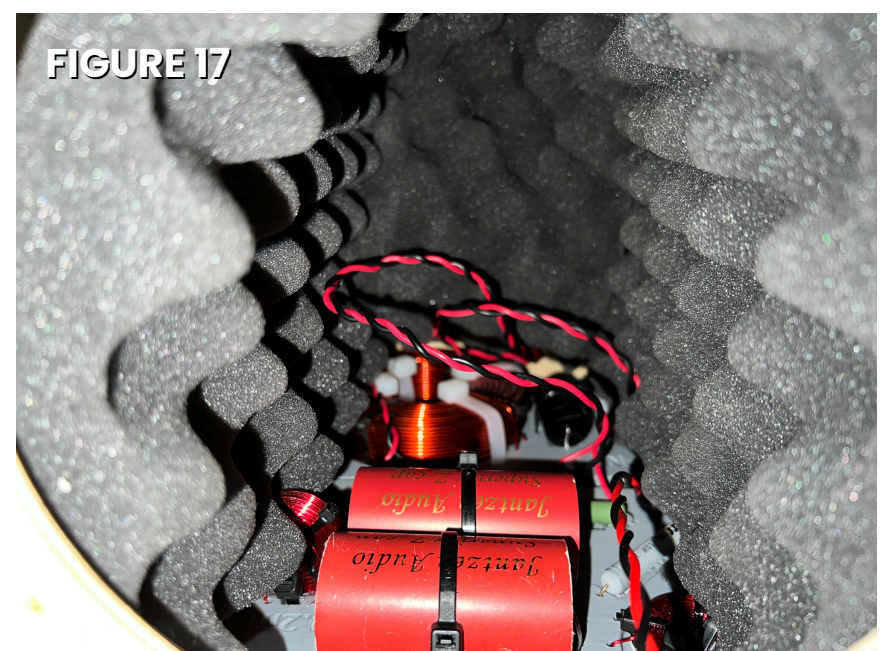
Ensure all connections are tight and that no bare wire is exposed or in contact with other terminals.

5. Route wiring to avoid contact with the port, drivers, or sharp edges inside the cabinet.

Foam Installation

1. Reinstall the foam panels inside the cabinet, positioning them around the crossover boards. (*figure 17*)
2. Foam may require slight trimming to accommodate the updated board layout.

Ensure foam does not obstruct airflow through the port.



Tweeter and Woofer Reinstallation

1. Connect the terminals to the new Veritas LD25B-6 tweeter, ensuring the polarity is correct. (figure 18)
2. Install the Veritas LD25B-6 tweeter into the cabinet and secure it using the appropriate screws.
3. Reconnect the terminals to the woofer, ensuring correct polarity. (figure 19)
4. Install the woofer into the cabinet and secure it using the original screws.



Final Check

CAUTION: It is recommended to test your speaker after final assembly by starting at a very low volume and listening to each driver by placing your ear close. You should hear highs coming from the tweeter and lows from the woofer. You should hear no crackling or static.

1. Verify all wiring connections are secure and properly routed.
2. Ensure no internal components are loose and that foam placement does not interfere with driver operation or airflow.
3. Confirm that no exposed conductors are contacting unintended surfaces before connecting to an amplifier.
4. If everything sounds normal, proceed to gradually increase the volume and enjoy.



Troubleshooting

1. No Sound From the Whole Speaker - No sound from one or both speakers typically means you have a problem on the amp input side of the crossover. Check that your input wires are properly connected to the crossover (including the ground wires returning to the negative connection) and to the binding post side. Ensure the input wires and binding posts are not shorted by stray wires or other metal, which could create a conductive path between the negative and positive.
2. No Sound From One Driver - No sound from a single driver most typically results from a bad connection in the crossover. Review all connections to make sure only similar letters are on the same connection points. Ensure inductors are properly connected to tinned/bare wire, not over the insulation. Ensure there are no loose connections anywhere.
3. Crackling Sound – Crackling sounds are usually the result of a loose connection. Check to make sure you have secure connections on all driver and binding post wiring. Ensure crossover wiring has a solid connection, and solder welds are tight. You should see no movement in the joint itself. Check crossover wiring for any bare wires that are inadvertently touching where they shouldn't. If the source cannot be identified, contact us.
4. Amp Shuts Down – An amp shutting down is likely caused by a straight short to ground, meaning your amp is seeing minimal or no resistive load. The most likely cause is wiring touching where it shouldn't be. Check crossover wiring for any bare wires that are inadvertently touching where they shouldn't. Ensure binding post terminals are not inadvertently touching. An amp shutting down is likely a straight short to ground, meaning it's seeing no resistive load. If the source cannot be identified, contact us.
5. Lack of Bass – There are a few things that can cause a lack of bass. Check to make sure all your connections have the same polarity on both the inside and the outside of the binding post. Inverting the polarity of one speaker will cause bass cancellation. Ensure there is free airflow around the port openings and that they are not blocked by stuffing material. Ensure the woofer is connected to the woofer W +/- section of the SmartNode board and not the tweeter T +/- section. Ensure the port is adjusted to the correct length. If the source cannot be identified, contact us.