TB 4-Pack Quad 3" 3D-Printed Powered DIY Subwoofer Kit

Thank you for purchasing the TB 4-Pack quad 3" 3D-printed powered subwoofer kit. This kit is designed to be printed on most consumer-grade 3D printers and assembled with basic tools, making it suitable for both first-time builders and experienced DIYers. With careful printing and assembly, the finished subwoofer will provide reliable performance and long-term enjoyment. Follow the steps in this guide closely to achieve the best results.

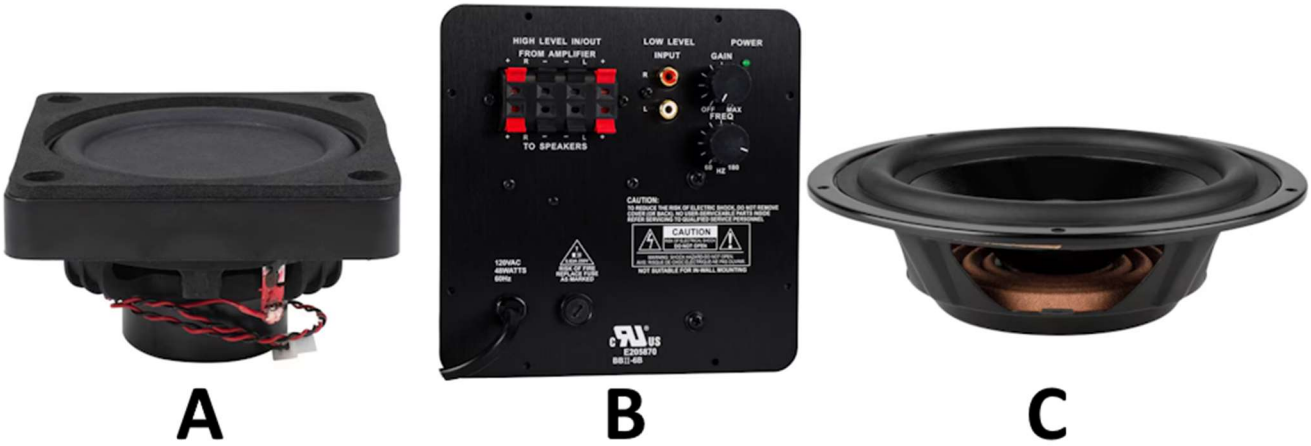
Suggested Tools and Consumables:

Phillips Screwdriver
4mm Hex Bit or Allen wrench
Wire Cutters/Strippers
Hot Glue Gun
Utility Knife
Soldering Iron
Solder
Electrical tape
Scissors
Cyanoacrylate (CA) adhesive

Package Contents:

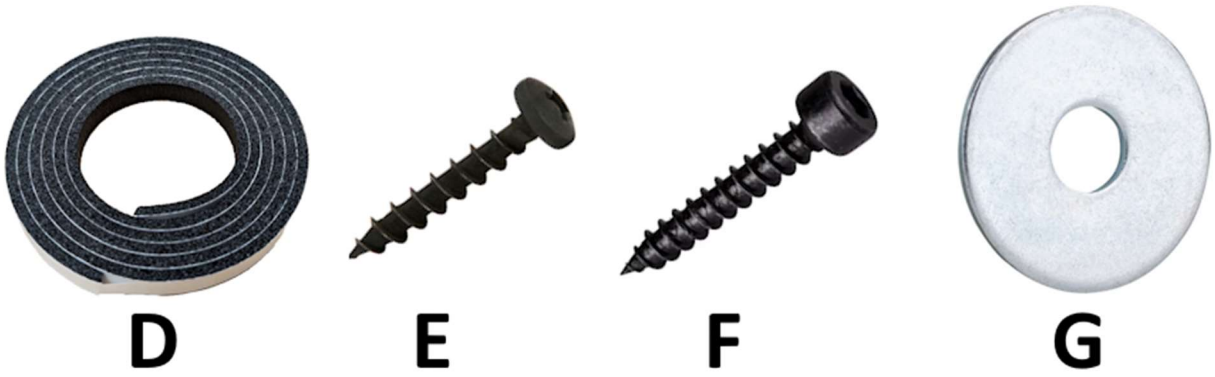
Begin by unpacking all components and verifying that every part is present and in good condition. If any items are missing or damaged, please contact our customer service department at 1-800-338-0531 before proceeding with assembly.

Main Components:



A) **4 x** Tang Band W3-2052SC 3" RBM Neodymium Subwoofer 4 Ohm
B) **1 x** Dayton Audio SA25 25W Subwoofer Plate Amplifier
C) **1 x** Dayton Audio DS175-PR 6-1/2" Designer Series Passive Radiator

Other Components:



D) **5 Ft.** Speaker Gasketing Tape 1/8" x 3/8"
E) **25 x** #6 x 3/4" Pan Head Deep Thread Black Screws
F) **20 x** M5 x 30mm Cap Head Wood Screws Black
G) **5 x** 1/4" x 1" Zinc Fender Washers

Enclosure Details and 3D Printer Setup:

The TB 4-Pack enclosure consists of 3 parts: Top, Bottom, and Amplifier Cover. To print these, you will need a printer with a build volume of at least 230mm wide x 230mm deep x 180mm high. If your 3D printer has a larger build volume, the enclosure can also be printed as a single piece (the files for both versions are included). Download the 3D files from the "Manuals & Resources" section of the product page, or follow this link: TB 4-Pack Enclosure Files.

Orient the enclosure parts with the flat rear surfaces facing down on the build plate, as shown.

Printer Setup and Tips:

Minimum build volume: 230mm wide × 230mm deep × 180mm high

Nozzle
- 0.4mm nozzle

Recommended materials
- PLA
- PLA+
- PETG
- ABS (with adequate ventilation)

Suggested print settings
- Layer height: 0.2mm
- Wall loops (perimeter count): 5
- Top and bottom layers: 5
- Infill: 30% minimum, gyroid or cubic
- Supports: Tree supports
- Brim: 5mm for improved bed adhesion

Print speed: Use moderate print speeds for all enclosure parts.

Filament condition: Use dry filament when printing enclosure parts. Moisture in PLA, PETG, or ABS can cause micro-gaps, weak layers, and air leaks.

Bed preparation: Level and clean the print bed before printing enclosure parts. A flat first layer is critical for keeping large panels straight and properly aligned.

Single Piece Enclosure Assembly:

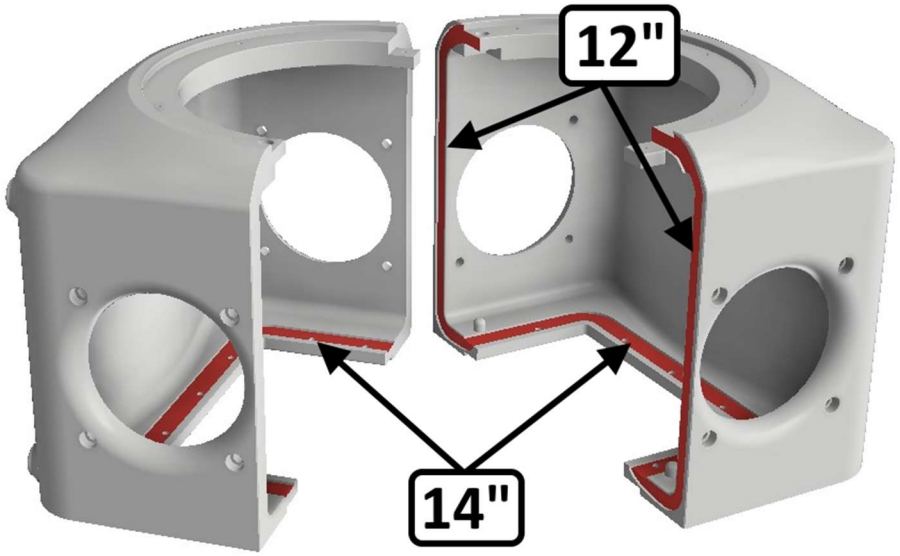
If you print the Single Piece Enclosure then there is no enclosure assembly required. You can skip directly to **Final Assembly** (step # **15**) to begin installing the components.

3-Piece Enclosure Assembly:

Before assembly: Dry-fit all printed parts to ensure a successful print and familiarize yourself with assembly. Reprint any panels that show warping, visible gaps, poor layer bonding, or misaligned screw holes. A tight, flat fit is required for proper sealing and acoustic performance.

1) Begin by cutting the **Speaker Gasketing Tape 1/8" x 3/8"** (**D**) into 2 x 14" pieces and 2 x 12" pieces.

2) The speaker gasketing tape will be applied to the red highlighted areas on the image below.



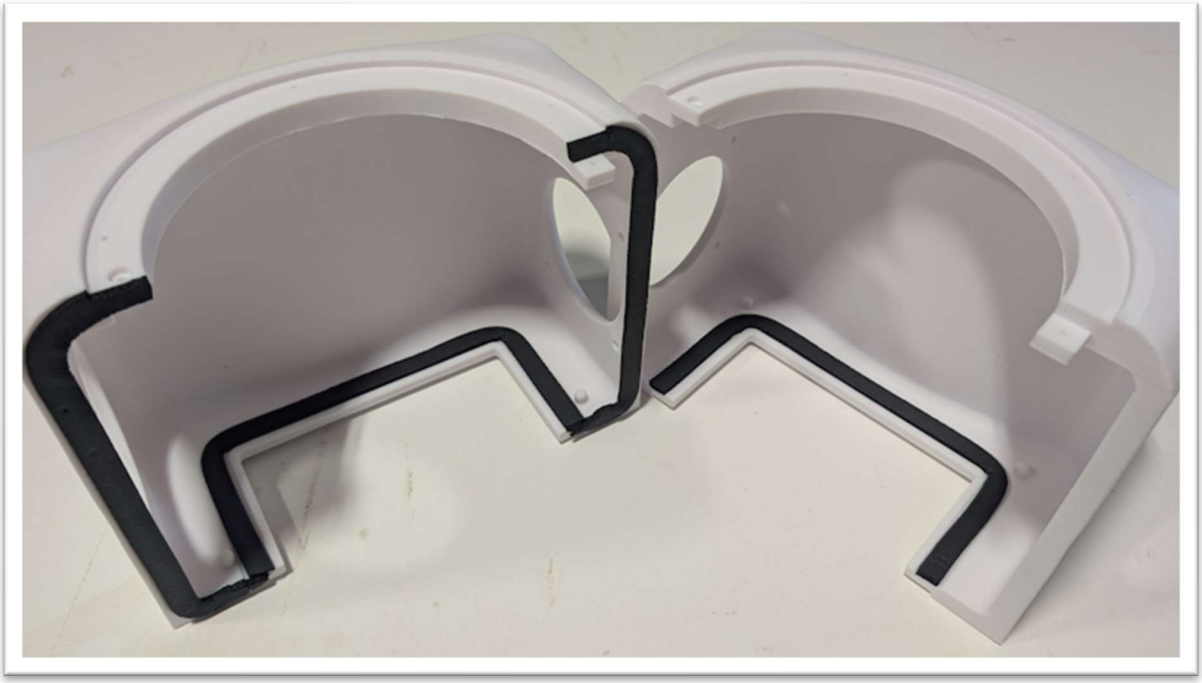
3) Apply the 12" pieces to the sides of the Top Piece in the grooves provided. Leave approximately 1" extra material on each end. Press hard to ensure the tape has adequate adhesion to the mating surface, especially around any curves. Also, do not stretch the gasket tape as you apply it to ensure proper adhesion.
Note: Approximately 1/16" of the gasket tape will hang into the inside of the enclosure, this is expected.

4) Use a sharp knife to cut the ends of the gasket tape flush with the edges of the enclosure as shown.

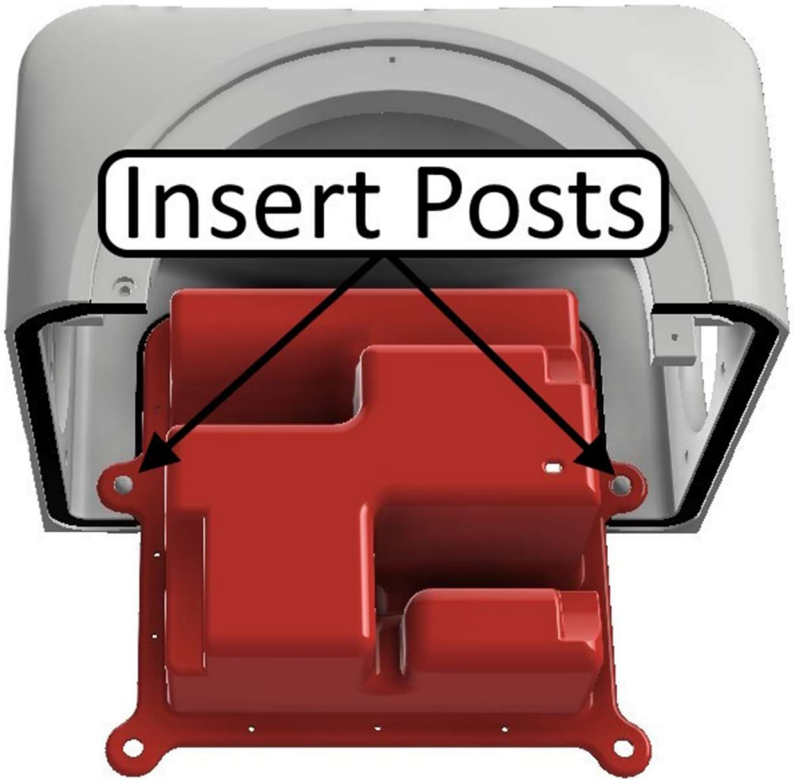
5) Apply the 14" pieces of gasket tape to the Amplifier Cover mounting surface (both Top and Bottom Pieces) in the grooves provided. Leave approximately 1" extra material on each end. Press hard to ensure the tape has adequate adhesion to the mating surface, especially around the curves. Also, do not stretch the gasket tape as you apply it to ensure proper adhesion.

6) Use a sharp knife to cut the ends of the gasket tape flush. For the Bottom Piece the tape should be flush with the edges of the enclosure. On the Top Piece, overlap the gasket you previously applied and trim it flush with the existing gasket.

With the gasket tape applied your enclosure should look like this:



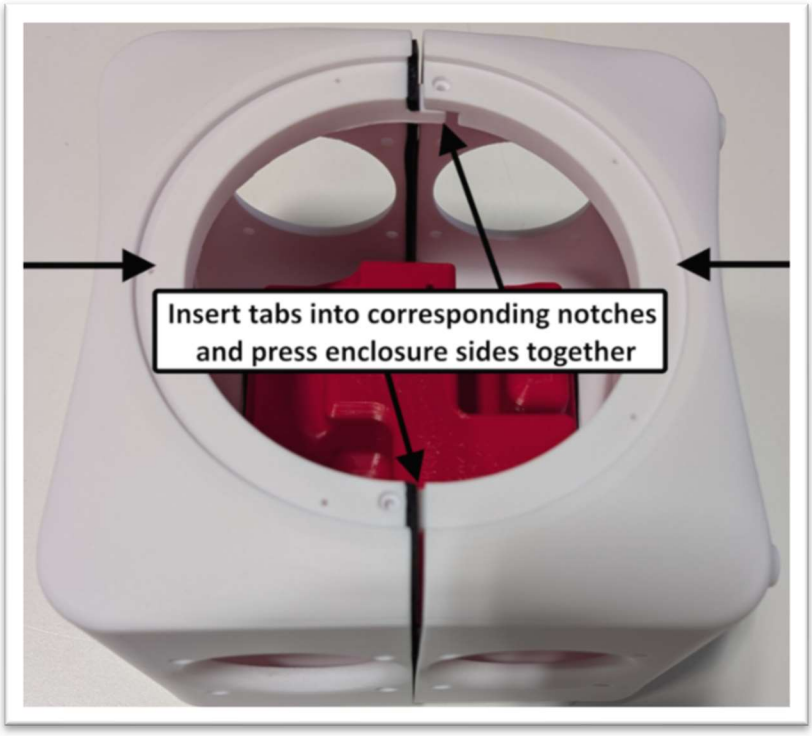
7) Insert the two posts on the inside of the Top Piece into the corresponding holes in the Amplifier Cover.



8) Insert 2 x **#6 x 3/4" Pan Head Deep Thread Black Screws** (**E**) into the holes shown below. Tighten the screws *just* until the Amplifier Cover compresses the gasket and is pulled flush with the top piece (do not overtighten the screws). The screws should be completely countersunk below the amplifier mounting surface.

9) Place the enclosure's Bottom Piece onto the Top Piece and insert the posts on the inside into the corresponding holes in the Amplifier Cover.
Note: The posts will temporarily hold the Bottom Piece in place to make the next steps easier.

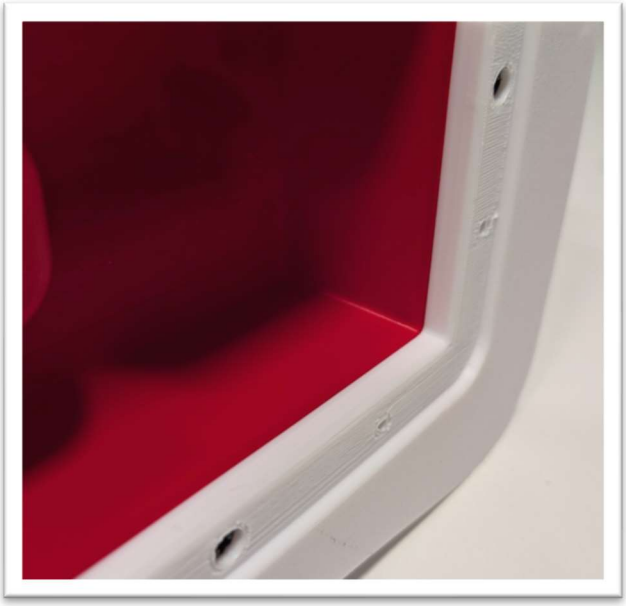
10) Compress the gasket by carefully pressing the front of the Top and Bottom Pieces together while ensuring that the tabs are inserted into their corresponding notches.
Note: Have 2 x **#6 x 3/4" Pan Head Deep Thread Black Screws** (**E**) and a Phillips head screwdriver ready for the next step.



11) Once the tabs are fully seated, insert 2 x **#6 x 3/4" Pan Head Deep Thread Black Screws** (**E**) into the holes shown below. Tighten these screws fully making sure the head of the screw is completely countersunk below the mounting surface of the passive radiator.

12) On the back of the enclosure, insert 2 x **#6 x 3/4" Pan Head Deep Thread Black Screws** (**E**) into the holes shown below. Tighten these screws fully and ensure the head of the screw is completely countersunk below the amplifier mounting surface.

13) Carefully tighten each screw to ensure they are fully seated. Also, make sure that the Amplifier Cover is pulled tightly to the Top and Bottom Pieces near each of the 4 screws (there may be some small gaps away from the screws, these will be sealed up when the amplifier is installed)



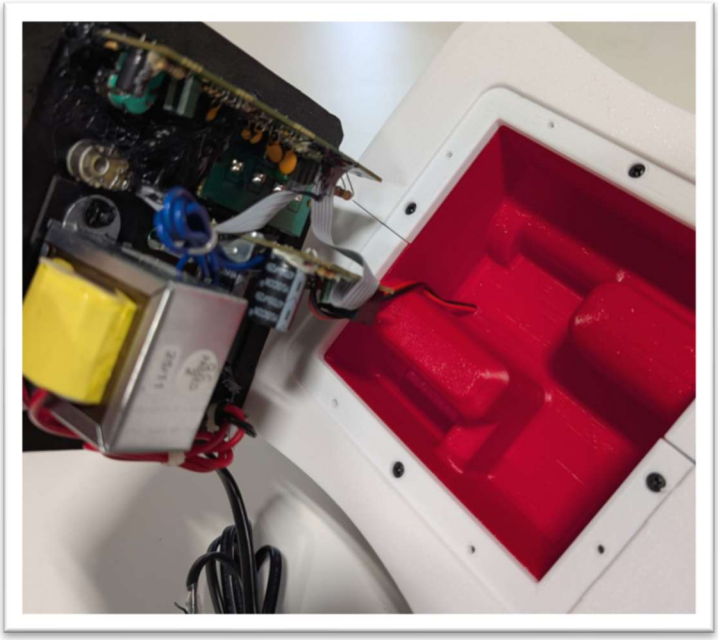
14) The enclosure is now complete!
Optional: A small amount of cyanoacrylate (CA) adhesive may be applied to the posts and tabs around the Amplifier Cover to further reduce the possibility of rattles or buzzes. This step is optional and typically not required if the enclosure is assembled correctly.

Final Assembly:

Safety Note: Ensure the amplifier is unplugged and disconnected from power before making any wiring connections or performing assembly.

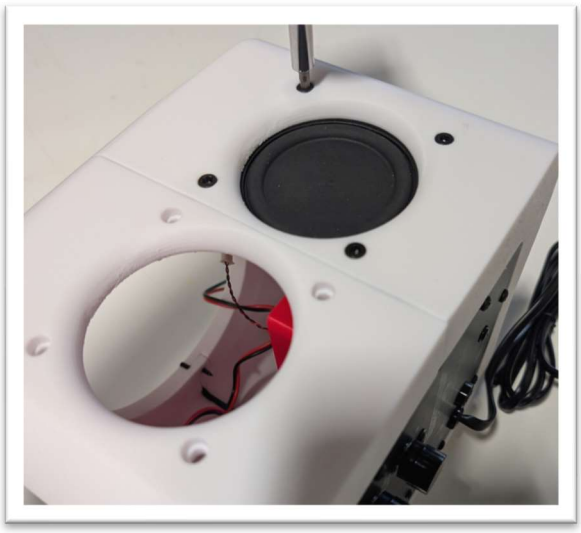
15) Prepare the **Dayton Audio SA25 25W Subwoofer Plate Amplifier** (**B**) for installation by cutting off the solderless connectors at the end of the output (red/black) wire.

16) Insert the output (red/black) wire from the SA25 Plate Amplifier through the oval shaped hole in the Amplifier Cover. Insert the SA25 Plate Amplifier into the opening in the back of the enclosure while pulling output (red/black) wire into the inside of the enclosure to remove the slack.
Note: The Amplifier Cover is a fairly tight fit to the electronics on the back of the SA25 Plate Amplifier. You may need to reposition the red wire near the transformer or the grey ribbon cables to get the SA25 Plate Amplifier to fit easily.



17) Secure the SA25 Plate Amplifier to the enclosure with 8 **x #6 x 3/4" Pan Head Deep Thread Black Screws** (**E**). Carefully tighten the screws to avoid stripping the screw holes. As you tighten these screws, they will pull the Amplifier Cover into place creating a tight seal to the enclosure.

18) Insert one of the **Tang Band W3-2052SC 3" RBM Neodymium Subwoofers** (**A**) inside the enclosure and align its screw holes with the corresponding holes in the enclosure. Using a 4mm hex (Allen) bit insert 4 x **M5 x 30mm Cap Head Wood Screws** (**F**) through the outside of the enclosure and into the drivers screw holes to secure the driver in place. Tighten these screws just until the screw is flush with the outside of the enclosure and the subwoofer's front gasket is compressed against the inside of the enclosure.
Note: Due to tight tolerances around the amplifier cover and the drivers' front gaskets, you may need to lightly force some of the drivers into place.

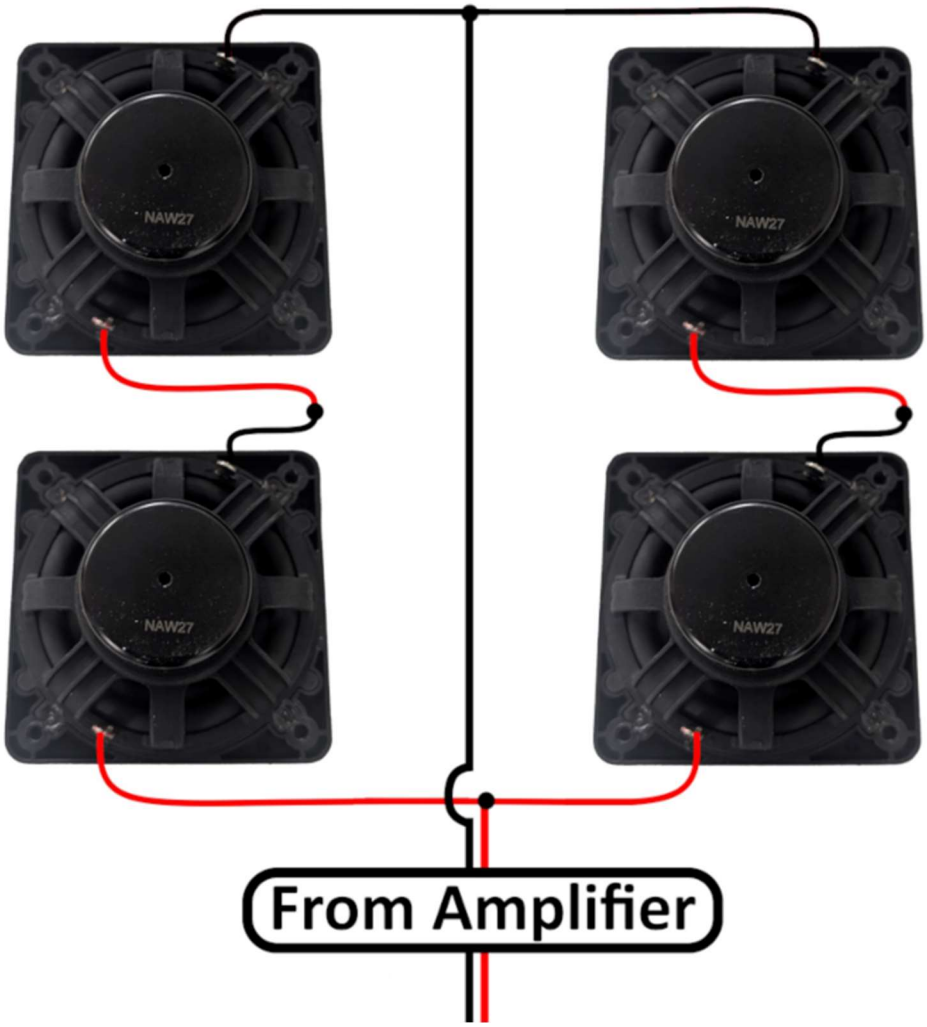


19) Repeat step 18 for the other 3 **Tang Band W3-2052SC 3" RBM Neodymium Subwoofers** (**A**).

20) Prepare the Tang Band W3-2052SC 3" RBM Neodymium Subwoofers for wiring by cutting off the included 2-pin plugs and then stripping about 0.75" of insulation off of each wire. Also, strip about 0.75" of insulation off the output (red/black) wires from the SA25 Plate Amplifier.

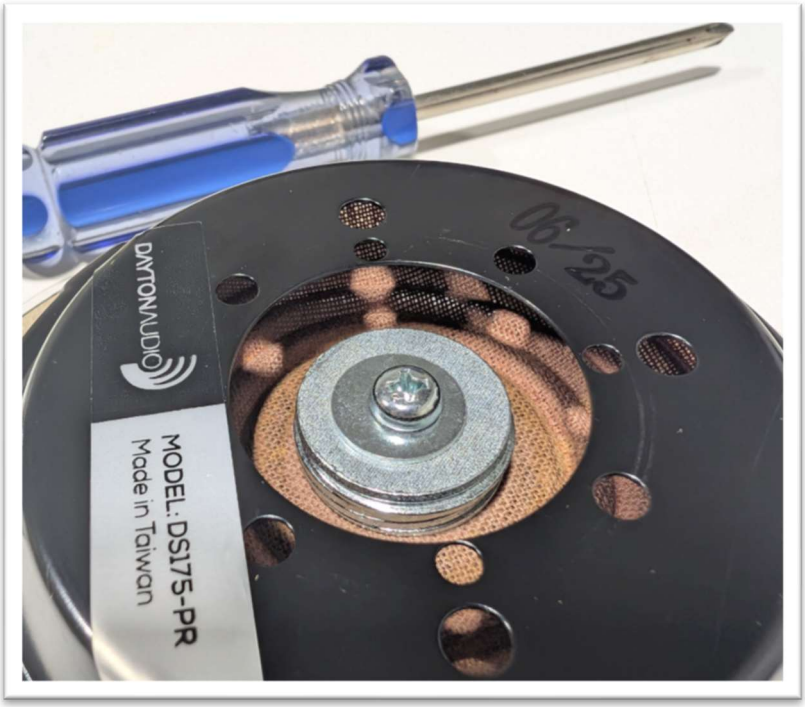
21) Push the output (red/black) wire from the SA25 Plate Amplifier back into the hole in the Amplifier Cover until only 6" - 8" remain inside the enclosure. Seal the hole and secure the wire using a little bit of hot glue (caulk, epoxy, museum putty, or even poster tack will work also).

22) Wire the drivers in a series parallel connection for a final load of 4 ohms to the amplifier. Follow the wiring diagram as shown below. We recommend soldering the connections together, however just securely twisting the wires will suffice. Insulate each wire connection by wrapping with electrical tape or covering with heat shrink.



23) Use strips of the remaining Speaker Gasketing Tape to secure the excess wire in order to avoid any unwanted buzzing or rattles. The wire can either be wrapped or adhered to the back side of the Amplifier Cover as shown below.

24) Prepare the **Dayton Audio DS175-PR 6-1/2" Designer Series Passive Radiator** (**C**) for installation by adding the five **1/4" x 1" Zinc Fender Washers** (**G**) to the back side of the passive radiator. Secure the fender washers with the screw and washer provided in the DS175-PR Passive Radiator package.



25) Take note of the location of the 5 screw holes in the front of the enclosure for the DS175-PR Passive Radiator. Set the gasket included with the passive radiator into the recess in the front of the enclosure. Set the passive radiator into the opening with the screw holes lined up with the corresponding holes in the enclosure. Use five #6 x 3/4" Pan Head Deep Thread Black Screws to secure the passive radiator into place. Tighten these screws just until the passive radiator is pulled flush with the front of the enclosure.

Your TB 4-Pack Subwoofer is Now Complete