

C-Note Bookshelf Speaker Kit

Thank you for purchasing the C-Note center channel speaker kit. This speaker kit was precision cut using CNC machinery for the best possible fit and finish. With a little time and patience, your finished product will provide years of enjoyment. Please follow the following instructions for the best possible results.

Suggested tools and consumables:

Drill
5/64" drill bit (to pre-drill screw holes)
Wood clamps (you can never have too many of these)
Sanding block and/or electric finishing sander
Wood glue
Speaker or hook-up wire
0.11" female disconnect terminal
0.205" female disconnect terminal

Rag or paper towels
Solder
Soldering iron
Hot glue gun
Binding post/terminal cup
Polyurethane glue (Gorilla Glue)
Cyanoacrylate Adhesive (super glue)
#6 x 3/4" Pan head wood screws

Package contents:

First, empty the contents of the package and review parts to ensure everything has been included and is in good condition.

Note: Crossover components may be substituted with parts of equal or higher quality depending on stock.

Components:



A



B



C

A) 2 x 1-3/8" ID adjustable port tube

B) Dayton Audio ND25FW-4 1" Soft Dome Neodymium Tweeter with Waveguide

C) 2 x Dayton Audio DSA135-8 5" Designer Series Aluminum Cone Woofer



D



E



F



G



H



I

- D)** 2 x 15 μF capacitor
- E)** 0.22 μF capacitor
- F)** 3.0 μF capacitor
- G)** 2.7 μF capacitor
- H)** 20 Ω resistor
- I)** 3 Ω resistor



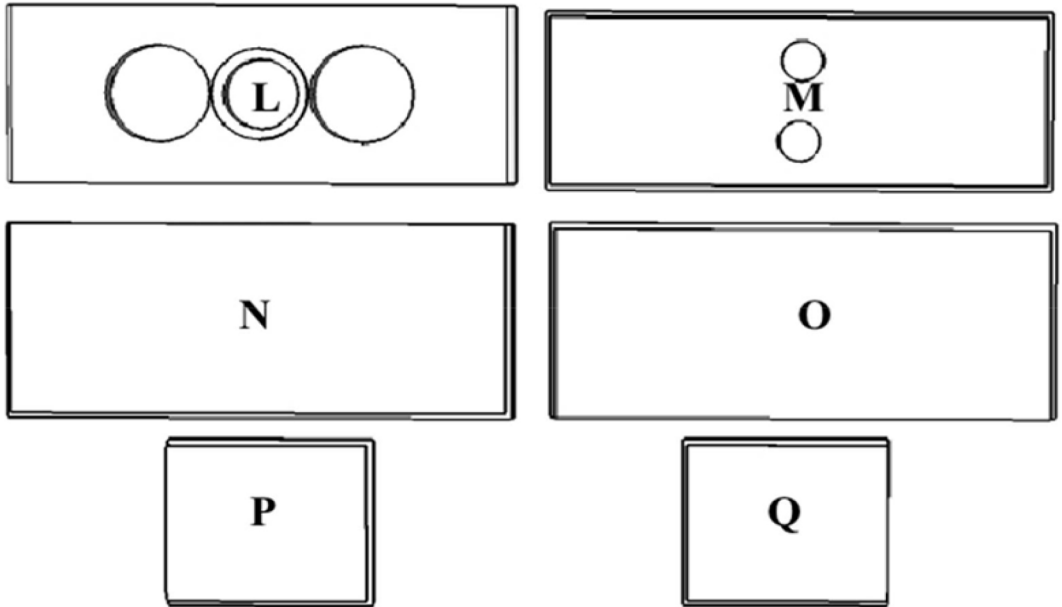
J



K

- J)** 1.2 mH air core inductor
- K)** 0.1 mH air core inductor

Enclosure:

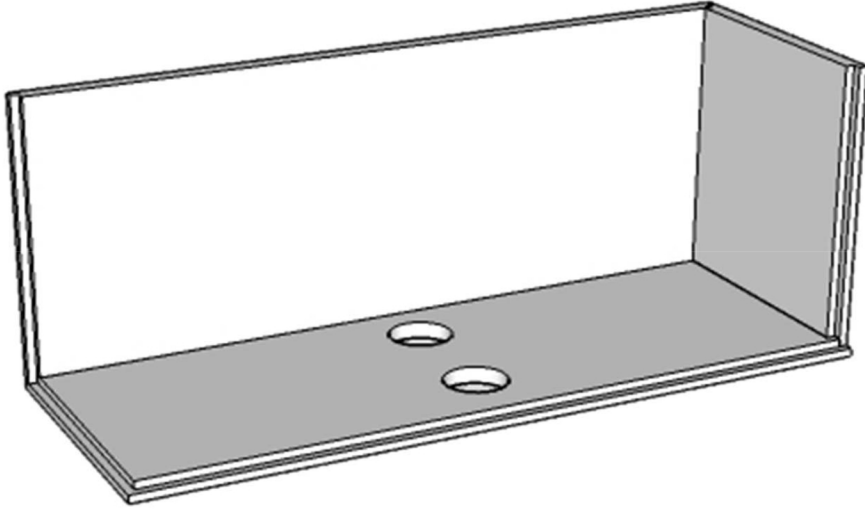


- L)** Front
- M)** Back
- N)** Top
- O)** Bottom
- P)** Side
- Q)** Side

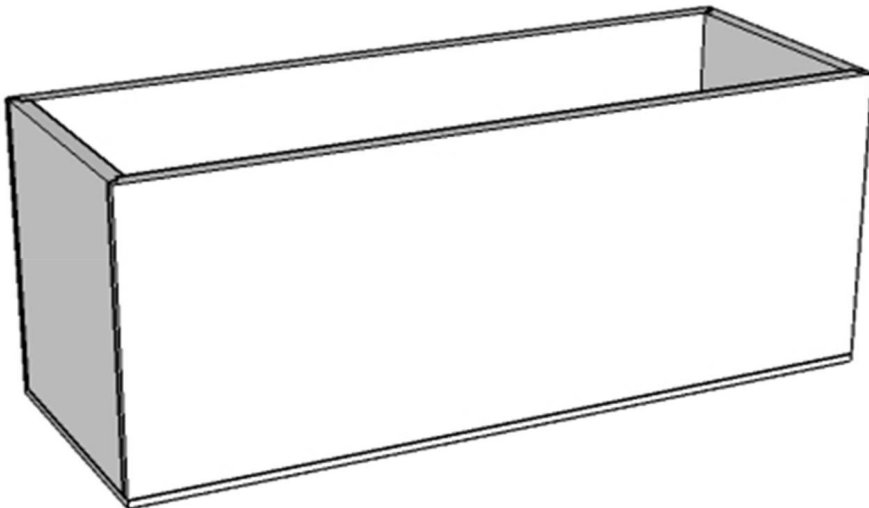
Enclosure Assembly:

- 1) First, take the back panel and cut or drill holes required for the speaker termination of your choice (binding posts, terminal cup, Speakon, etc...).
- 2) Next, set the enclosure parts out on a flat level surface and ensure that all pieces are free of dust and debris.

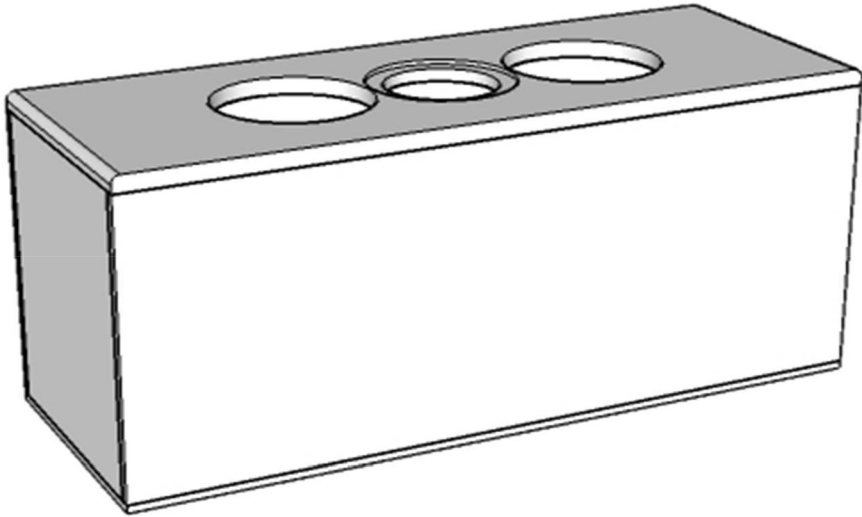
- 3) With the back panel lying flat, glue all mating surfaces of the bottom panel and one side panel and secure them to the back panel with clamps so that even pressure is applied to all glued surfaces. Using a damp rag or paper towel wipe away any glue squeeze-out on the outside of the enclosure and inside the rabbeted edge (excess glue on the inside is fine). Allow to dry according to the glue manufacturer's recommendations and remove clamps.



- 4) Next, glue all mating surfaces of the top panel and the other side panel and secure them in place with clamps so that even pressure is applied to all glued surfaces. Using a damp rag or paper towel wipe away any glue squeeze-out on the outside of the enclosure (excess glue on the inside is fine). Allow to dry according to the glue manufacturer's recommendations and remove clamps.

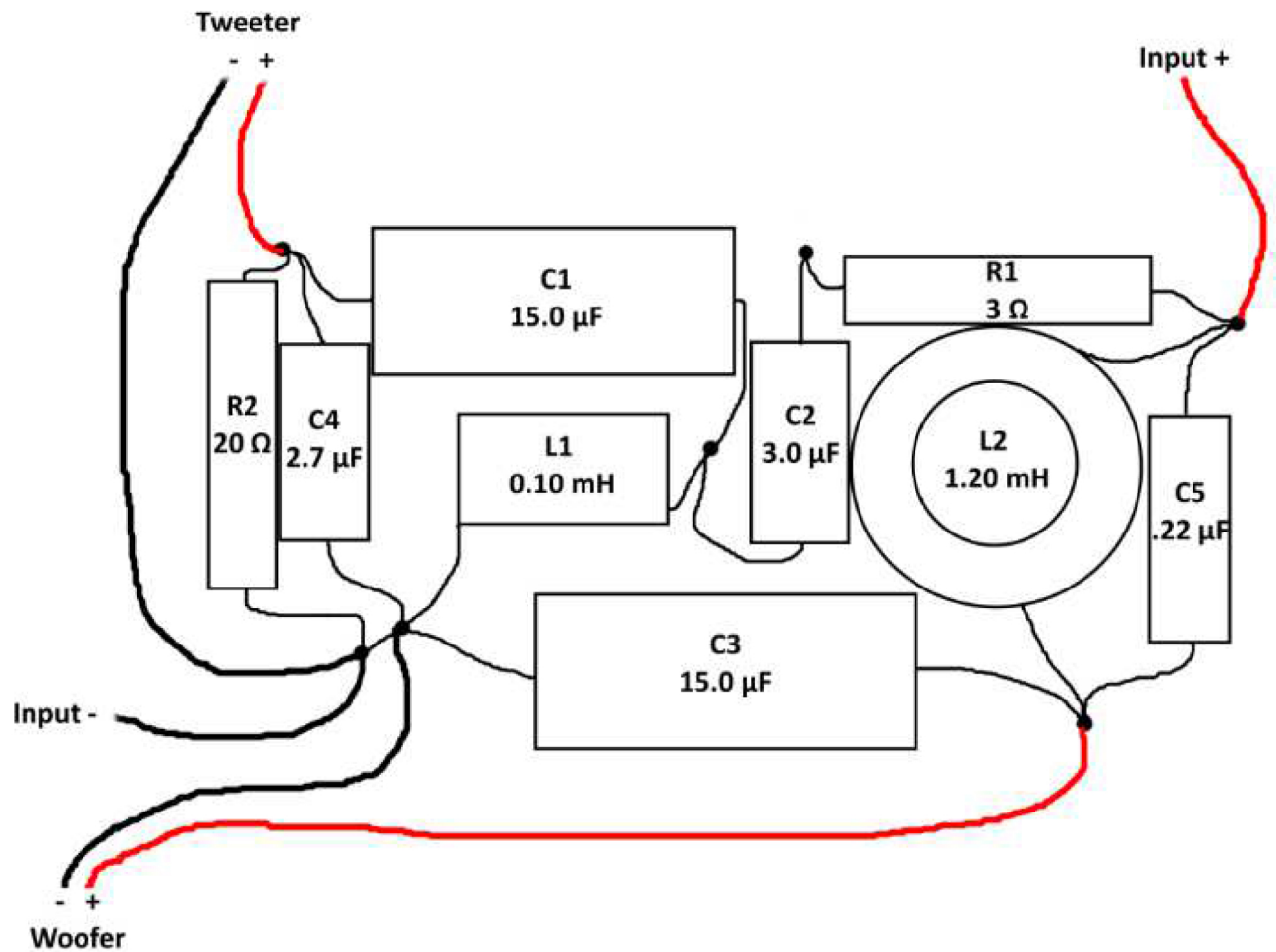


- 5) Finally, apply a thin layer of glue to the front edge of the enclosure. Set the front baffle in place on the glued edge. While ensuring all edges are even and square, position clamps to apply even pressure to all glued surfaces. Wipe away any glue squeeze-out on the outside of the enclosure. At this time double check that all edges are even and square (this cannot be adjusted once the glue is dry). Allow to dry according to the glue manufacturer's recommendations and remove clamps.



- 6) Sand and finish enclosure to your liking.

Crossover assembly:



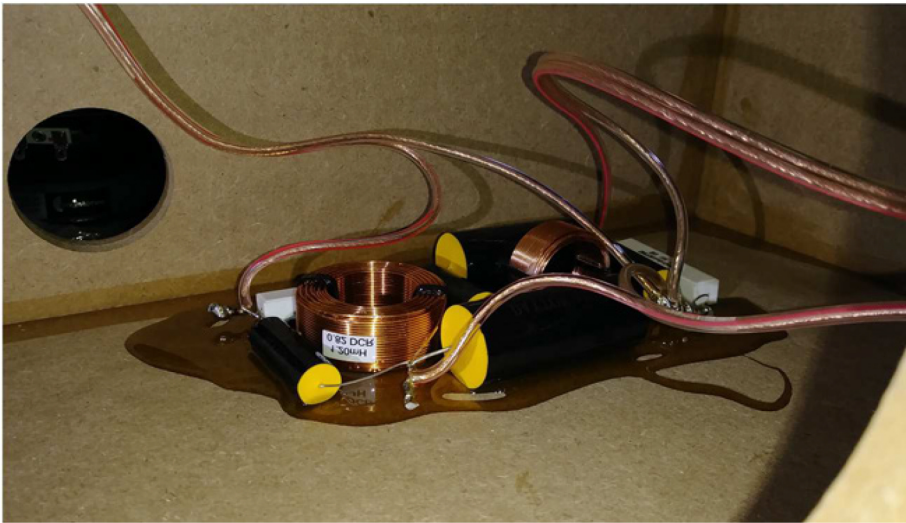
Point-to-point wiring diagram

- 7) Arrange the components as illustrated in the point-to-point wiring diagram above so the leads can be connected together as shown. Take careful note of the component type and the value of the component. (The crossover schematic is provided at the end of this assembly guide.) If you would like, the crossover can be mounted to a 4" x 6" board to make handling it a little easier.
- 8) Connect the leads of the components as shown in the diagram by twisting them together or creating interlocking "hooks" with the leads. Double check your layout to ensure all components are in the proper location and connections are correct.
- 9) With a hot soldering iron, apply solder to the connections between components. Heat the junction evenly and verify that the solder flows into the connection rather than forming a "blob" on the surface (cold joint).

- 10) Cut two lengths of 2-conductor speaker wire approximately 10"-16" in length, then solder them at the outputs of the crossover network as shown in the schematic so that the marked polarity of the wire matches the driver polarity shown in the schematic. Label each wire "woofer" or "tweeter" corresponding to the schematic.
- 11) Finally, cut one length of 2-conductor speaker wire approximately 10"-12" in length, and label the length of wire "Input".

Final Assembly:

- 12) Insert crossover through woofer hole and glue crossover to the bottom of the enclosure (polyurethane glue, high temperature hot glue gun, or epoxy is recommended). Ensure all crossover components are securely held in place to prevent rattles.



- 13) Port installation is simple. For the recommended tuning, just use the 4-1/2" section of the ports. Insert the ports into the enclosure and screw into place. Note: tuning can be adjusted to your preference.

- 14) Install your preferred speaker termination (binding posts, terminal cup, Speakon, etc...), and connect the input wires from the crossover while observing polarity (positive = red, negative = black)



- 15) Connect tweeter wires to tweeter terminals while observing polarity (positive = wide terminal, negative = narrow terminal) and set tweeter in place. Using a screwdriver, secure woofer with screws just until tight being careful not to strip out the holes (a power drill is not recommended).



- 16) Connect woofer wires to 1st woofer terminals while observing polarity. Run a second set of wires from the 1st woofer's positive and negative terminals to the 2nd woofer's positive and negative terminals (parallel wiring, running two sets of woofer wires from the crossover is also an option). Set both woofers in place. Using a screwdriver, secure woofer with screws just until tight being careful not to strip out the holes (a power drill is not recommended).



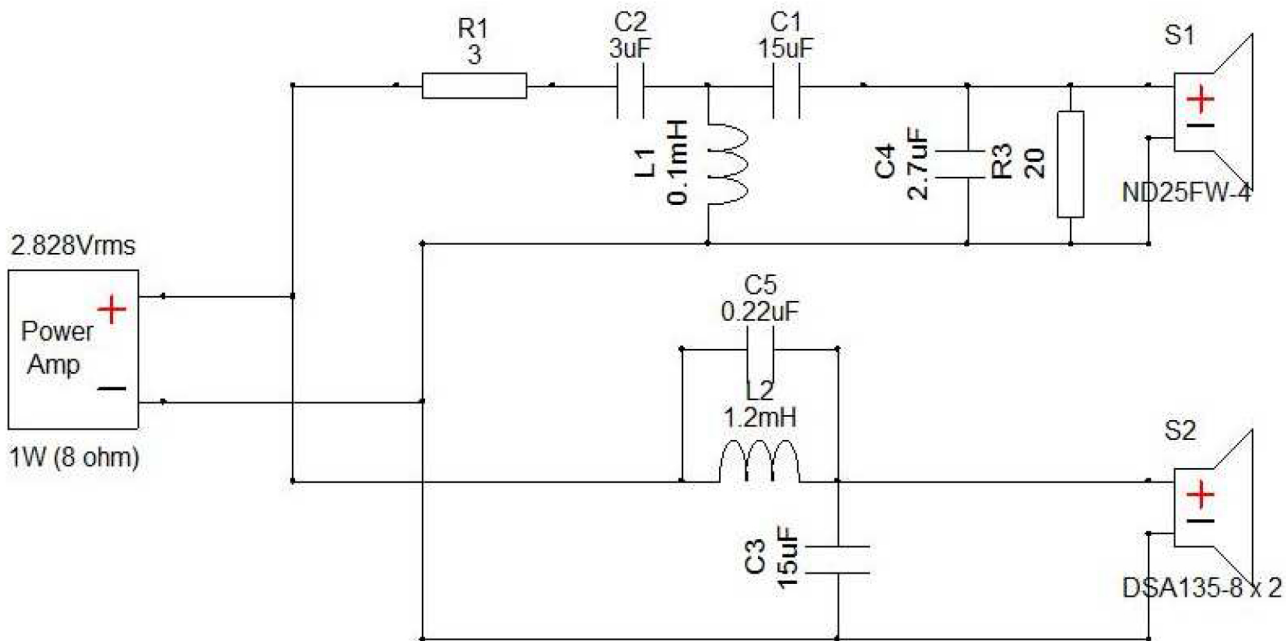
- 17) You are now ready to enjoy your finished C-Note center channel speaker.



Additional parts used:

Dayton Audio BPA-38G HD Binding Post Pair Gold
3.3 mm x 19.1 mm Deep Thread Pan Head Screws Black
0.205" (16-14 gauge) Female Disconnect 50 Pcs
0.110" (16-14 gauge) Female Disconnect 50 Pcs

C-Note Crossover Schematic:



Measured Frequency Response and Impedance:

