

ai Installation Guide



a Installation Guide



Step 1 - Remove Baffle Assembly

- 1.1 Remove the #10-24 machine screws holding the baffle subassembly.
- 1.2 Disconnect the white wire connector and remove the baffle subassembly.
- 1.3 Reinsert the machines screws into the enclosure for safe keeping.
- 1.4 Store baffle assembly for safe keeping until home construction is complete.



Step 2 - Attach Brackets

- 2.1 Using the #10-24 x 1.25" screws already installed in the top of the enclosure, install four PHC mounting brackerts as shown.
- 2.2 The slots in the brackets allow you to adjust them for the correct spacing between studs usually 14.5". Adjust the brackets to slightly less than the desired dimension.
- 2.3 Repeat this procedure on the bottom surface of the loudspeaker.

NOTE: ai models have bracket mount screw locations on enclosure sides and front (the same screws that secure the speaker baffle) to facilitate mounting in orientations other than shown here.



Step 3 - Position Speaker

- 3.1 With help from others, and using temporary supporting members if necessary, carefully move the speaker enclosure into position between the wall studs. Use wood construction shims if necessary to center the speaker between the studs and to provide additional support during mounting.
- 3.2 Once the enclosure is in place, loosen the bracket mounting screws and adjust the brackets to fit flat against the stud surface, then tighten screws securely.

CAUTION: Failure to get a flat and tight fit between the bracket and stud surface will result in weak installation and possible bracket failure.



Step 4 - Anchor Brackets to Studs

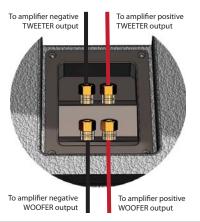
- 4.1 Using the #10 x 1.25'' lag screws provided, achor the speaker to the studs using the countersuck holes nearest the bracket end.
- 4.2 For additional support, #10 pan or truss head lag screws may also be installed in through the slots below the countersunk holes.

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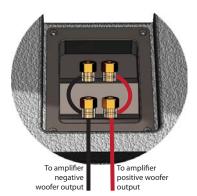
Step 5 - Connect Speaker Wires

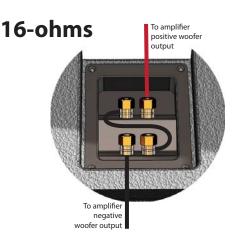
TWO-WAY ai MODELS:

All **ai** two-way loudspeakers require bi-amplification and therefore have four input terminals. Within the terminal cup, the upper set of binding posts are the inputs for the tweeter, and the lower set are the inputs for the woofer (when viewing the cup from the front of the speaker).

- 5.1 Connect the upper binding posts to the PHC amplifier channel configured for **high-pass** (tweeter) processing for the model being installed. Be sure to observe correct polarity and connect ONLY to amplifier with DSP programming for your ai model. Connection to an amplifier with incorrect DSP program could result in loudspeaker damage.
- 5.2 Connect the lower set of binding posts to the PHC amplifier channel configured for **low-pass (woofer) processing for the model being installed**. Again, observe correct polarity and double-check DSP programming.

4-ohms





SUBWOOFER ai MODELS:

The **ai** subwoofer model has four input terminals located on the woofer-end of the long enclosure. The subwoofer employs two woofers - each of which is connected to its own set of input posts, and each has a nominal impedance of 8-ohms. This allows flexibility of system design since by altering the wiring methodology one can acheive impedances of 4 and 16 ohms depending on need. Maximum power is transferred from PHC amplifiers when the load on any channel is 4-ohms. The 16-ohm configuration is useful when you want to run many woofer boxes on one amplifier channel: 4 **ai** woofer enclosures wired for 16 ohms may be paralleled for a final impedance of 4 ohms, for example, allowing a single amp channel to drive four subwoofer enclosures. Power to each enclosure is shared equally (ex: 1000W total/4 enclosures = 250W per enclosure).

5.1 Connect the subwoofer input terminals as shown in the diagrams to the left using the configuration that provides the final load impedance desired.

CAUTION: Never load any PHC amplifier model channel with nominal final total impedance of less than 4-ohms. Otherwise, amplifier damage may result.

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AFTER CONSTRUCTION IS COMPLETE

Step 6 - Reinstall Baffle Assembly

- 6.1 Remove the #10-24 machine screws installed in the enclosure front.
- 6.2 Reconnect the white wire harness connector.
- 6.3 Reinstall the baffle assembly and secure it using the $\#10\mbox{-}24$ machine screws.

Tighten screws uniformly to insure an air-tight seal between baffle and enclosure.

