

Before installation begins...

- Select the amplifier location
- Gather the proper tools and equipment
- Layout all speaker components

Tools and Equipment

- Small flathead screwdriver
- Drill with 3/16" or 1/4" drill bit
- Phillips head driver
- Marker or pencil

Speaker Components

- (4) WMQ speakers
- (4) Wall mount brackets
- (4) Sets of mounting hardware (screws and mollies)
- (4) Bundles of plenum-rated speaker wire

Step 1: Selecting Speaker Mounting Locations

A standard system includes 4 ceiling speakers for rooms up to 1600 square feet with a ceiling height of 8-12 feet. The location of the speakers is critical for even sound distribution.

- Refer to Figure 1 for speaker positioning recommendations.
- Ideally speakers should be staggered on all four walls (Optimum).
- When all four walls are not available, refer to the other diagrams for alternative positioning.
- Speakers should not be positioned directly opposite of one another.
- When speakers are mounted, they should be tilted down toward the specific listening area indicated on the diagrams.
- Depending on ceiling height speakers should be placed 7.5 feet to 12 feet high

Step 2: Mounting the Speakers

Locate the WMQ speaker brackets and mounting hardware provided in the box.

- Use the bracket as a template to mark the position for the screws. The bracket should be positioned horizontally on the wall with the screws positioned as shown in Figure 2.
- If the walls are drywall, drill pilot holes with a 3/16" or 1/4" or drill bit, then screw in the supplied mollies.
- Drill the mounting screw into the wall (or mollies), leaving a small gap to slip the bracket onto.
- Slide the bracket onto the screws and shift right to lock into place. Tighten the screws as necessary to secure the bracket.
- Place the WMQ speaker between the two bracket arms, aligning the mounting holes.
- Insert the large plastic mounting screw into the two sides of the speaker and tighten with your fingers.
- Direct the speaker at the appropriate angle to cover the desired area of the classroom (see Figure 1).

Step 3: Connecting and Routing Speaker Wire

Locate the plenum rated wire included with the speaker components.

- Distribute the coils of wire to each speaker (see Figure 3).
- Connect the length of wire to speaker #1 and speaker #3 (see

Figure 1: Speaker Placement

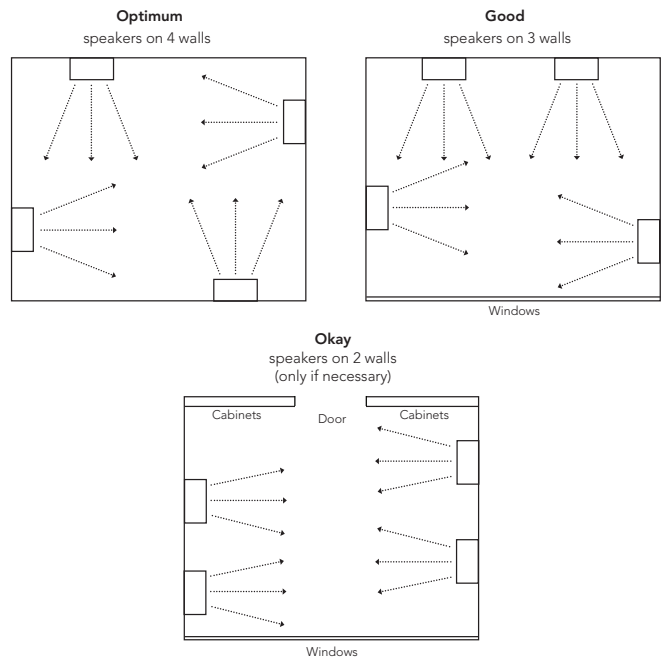
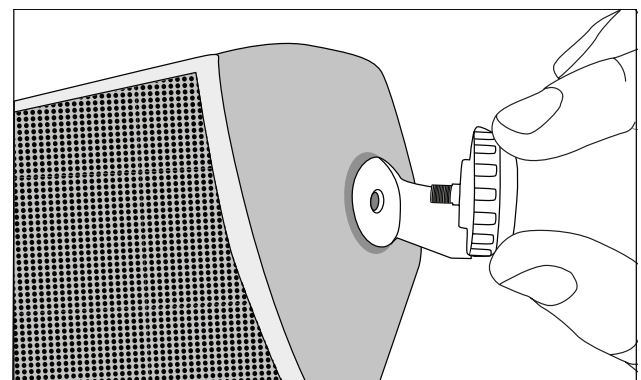
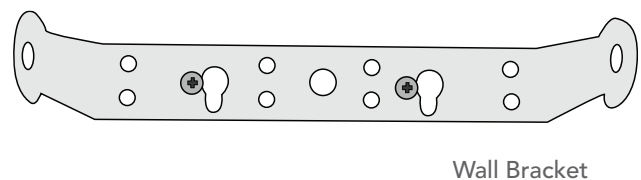


Figure 2: Mounting the Speaker



Speaker Installation (Continued)

Figure 3).

- c. Press down the speaker tabs on the back of the speaker and insert the red and black wires into the corresponding terminals. Release to lock the wires into place.
- d. Route the wires along the wall or across the ceiling to speakers #2 and #4 (see Figure 3).
- e. At speakers #2 and #4, take the other coil of wire and route one end across the wall or ceiling back to the amplifier.
- f. There should now be two wires at speakers #2 and #4. At each speaker location, twist the two black wires together and carefully insert them into the black terminal on the speaker. Repeat with the two red wires.
- g. Secure all speaker wire to the walls and ceiling using surface mounted raceway when required.

Step 4: Connecting Speaker Wire to Amplifier

Connect the wire coming from the speakers to the amplifier.

- a. Unplug the euro-block SPEAKER OUTPUT connector from the amplifier.
- b. Insert the two wires into the connector, paying close attention to polarity (+ - - +).
- c. Insert the red (+) wire and black (-) wire from speakers #1 and #2 into the left side of the connector (SPEAKER OUTPUT 1). Tighten the screw on top of the connector with small screwdriver to secure.
- d. Insert the black (-) wire and red (+) wire from speakers #3 and #4 into the right side of the connector (SPEAKER OUTPUT 2). Tighten the screw on top of the connector with small screwdriver to secure.
- e. Plug the euro-block connector back into the amplifier and secure using the two side screws.

If connecting to CAT 885:

- a. The corresponding speaker volume is preset in the maximum position. If adjustment necessary for balancing the room, it can be turned down.
- b. As an optional wiring method, each speaker can be connected directly to the amplifier (home runs) so they can be zoned individually.
- c. Up to 2 speakers can be connected to each output, allowing for a maximum of 12 speakers to be connected to the CAT 885.
- d. Stereo Speaker Output:
 - i. It is recommended that the system be left in mono to ensure all students in the classroom hear the entire message.
 - ii. However, if it is desired to amplifier multimedia sources in stereo, move the selection switch to the right of the speaker outputs.
 - iii. This impacts only speaker outputs 5 and 6, switching them to Left and Right.
 - iv. Voice will remain mono, only the devices connected to the audio inputs will be amplified in stereo.
 - v. Any speakers connected to output #5 will produce the Left signal, and those connected to #6 produce the Right signal coming from the multimedia devices.

Step 4: Return to the Set-up and Use section of the product User Manual to continue installation.

Figure 3: Wiring Diagram

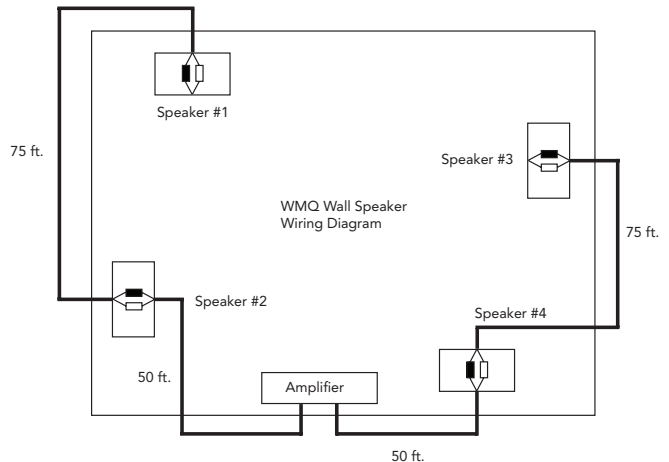


Figure 4: Connecting Speaker Wire to Back of Amplifier

