

Before installation begins...

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

Tools and Equipment

- Small flathead screwdriver
- Philips screwdriver
- Marker or pencil
- Drywall saw

Speaker Components

- (4) DRQ speakers
- (4) Tile bridges
- (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 8.5-12 feet. The location of the speakers is critical for even sound distribution.

- Identify and quarter the listening area (see figure 1)
- Select a ceiling tile the is centered in each quadrant
- Remove the selected ceiling tiles for speaker installation

Step 2: Installing the Speakers into the Ceiling Tile

Before beginning the speaker tile work choose a flat work surface.

- Lay the tile bridge across the backside of the ceiling tile as shown in Figure 2. Using a marker or pencil, trace out the cut-out circle as a template.
- Using a drywall saw or jigsaw, cut out a circular hole as neatly as possible. NOTE: to ensure the hole is large enough, cut slightly outside of the mark.
- Remove the speaker grille by turning and pushing one of the arms upward (see figure 3). Or use the included grille removal tool, insert the end into one of the holes near the edge and pull the grille off.
- Turn the tile on its side and insert the speaker into the front side of the tile. Place the tile bridge around the backside of the speaker, oriented horizontally across the tile.
- Use a screwdriver (or drill) to tighten the four mounting screws (see figure 4). Note: the first quarter turn pulls the mounting tabs away from the speaker enclosure, then begins tightening.
- Repeat steps B, C, D, and E for each speaker and tile.

Step 3: Connecting and Routing Speaker Wire

Locate the plenum rated wire included with the speaker components.
NOTE: It is advised to prep and connect each speaker connection at ground level.

- Distribute the coils of wire to each speaker (see Figure 5).
- Connect the length of wire to speaker #1 and speaker #3 (see Figure 5).
- Press down the terminal on the speaker to reveal a hole. Insert the red and black wires into the corresponding terminals and release to

Figure 1: Speaker Placement

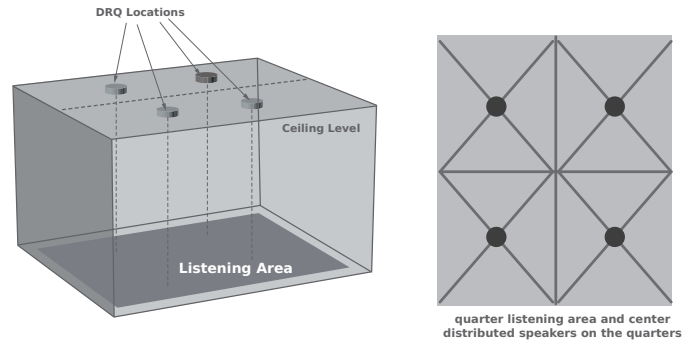


Figure 2: Cutting the Tile

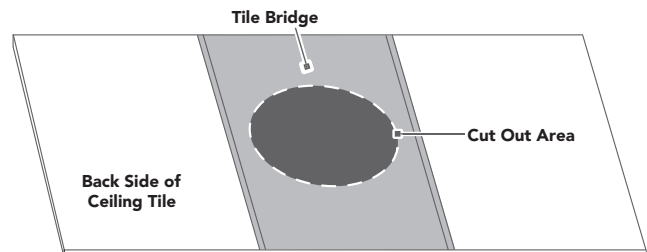


Figure 3: Removing the Grille

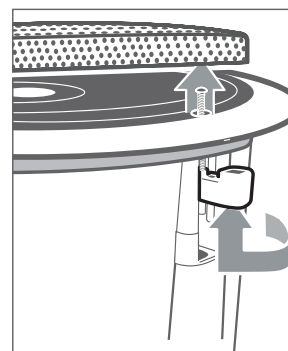
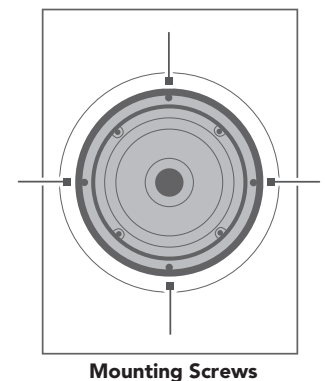


Figure 4: Mounting Speaker



Speaker Installation (Continued)

lock the wires into place.

- d. Route the wires up through the ceiling and back down to speakers #2 and #4 (see Figure 5).
- e. At speaker #2 and #4, take the other coil of wire and route one end up into the ceiling and over to the amplifier.
- f. There should now be two wires hanging down at both speaker #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. Now place all four ceiling tiles, with speakers installed, back into the openings in the ceiling. Make sure all excess wire is placed above the ceiling tile and secured to a support wire in accordance to local building codes.
- h. Use the eyebolt on the speaker to attach to a support wire as needed.

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 a 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 amplify 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 5: Return to the Set-up and Use section of the product User Manual to continue installation

Figure 5: Wiring Diagram

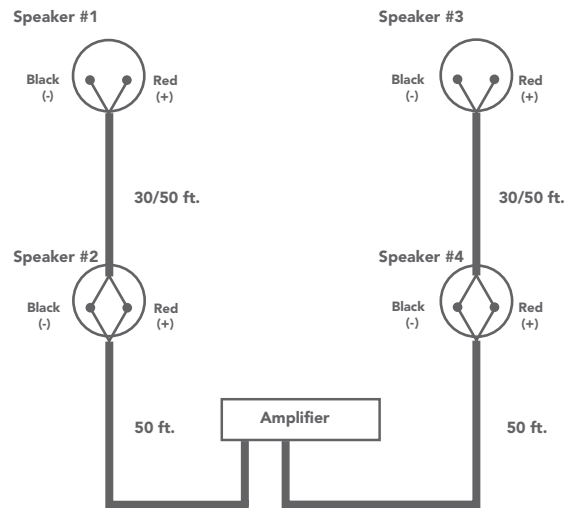


Figure 6: Connecting Speaker Wire to Back of Amplifier

