



Model: CS2453 6.5" 2 Way Ceiling Speaker

Woofer.....	6.5" polymer cone
Tweeter.....	13mm silk dome
Tweeter Mounted.....	Swivel
Rated Power.....	40WRMS
Sensitivity.....	89dB
Frequency Rate.....	43Hz-20 kHz
Impedance.....	8 Ohms
Dimension	228mm diameter x 89mm depth
Net Weight.....	0.95kg/pc

Speaker Placement

Once installed, speakers are not easily moved or repositioned. Take a little extra time to carefully consider a good speaker location before you begin. Each room is unique, so decide what works best for you. Unlike traditional speakers these mount flush and cannot be angled or aimed back into the listening area from the corners of a room apart from the tweeters you can swivel to any position. As a general rule, in wall speakers the speakers should be mounted close to ear level for in walls at least one-third of the distance from the corner of the room to the center of the wall or ceiling in which you will mount them. Allow at least 30mm of clearance between the cut out and any studs or joists for the mounting hardware to work properly. A mounting depth of 110mm measured from the face of the wall is also required. The speaker location and associated mounting hardware should not conflict with any existing wires or pipes.

Hooking Up The Wires

The terminals will accommodate up to 14-gauge speaker wire, which should be used for longer connections (greater than 20m of wire). For shorter distances, 16 or 18 gauge speaker wire will be adequate. Leave about 1.5m of extra wire at the speaker end to make installation and positioning of the speaker easier. Do not use staples, nails or other metal objects to secure the speaker wire. A short circuit could affect your system's performance and could also damage components in your system, especially the amplifier. You will get the best sound quality and least amount of hum by keeping the speaker wires away from other electrical wires and cables. When connecting your in-wall, in ceiling speakers, it is very important to retain the correct polarity. Positive to positive and negative to negative.

Mounting the Speaker

Yes, you will be cutting a hole in the wall or the ceiling. With the right tools and a little extra care and preparation, installing the speaker can be both quick and easy. Carefully cut out the hole drawn on the paper template at the perforated edge labeled "CUT HERE FOR MOUNTING TEMPLATE". (Note: The inside ring on the template can be used to shield the woofer if you want to paint the frame.) Next, position the template (now a border) where you have chosen to mount the speaker, and trace along the inside edge. Make your cuts along this line. A utility knife will make the cleanest cuts in Gyprock. A keyhole saw, electric jigsaw or Gyprock saw may also be used. Try to keep the cuts neat, however the frame will overlap the hole to hide any rough edges. At this point, with the wall or ceiling open, run the speaker wires into position, and leave about 1m of extra wire at the opening.

Remove the grille from the frame by pressing the quick-turn mounting screws from the back of the speaker into the grille itself. Remove the thin piece of foam positioned under the grille, which is used to protect the speaker during transport. Position the swivel tweeter so that it points toward the place in which you will be listening to the speakers. Attach the speaker wires to the speaker. With the grille removed, insert the speaker into the mounting hole. Use a phillips head screwdriver to turn the screw slowly clockwise. The quick-turn mounting system and frame will sandwich or clamp around the wall to hold the speaker in place. Do not overtighten. If you are unsure, consult a professional contractor.

Installing The Grille

The metal grille, as well as the frame, may be painted to match any room. If you choose to paint them, do so before attaching the grille to the speaker. The grille is held in place by a friction fit and is difficult to remove once the speaker is installed. If the grille feels a little loose, or you are concerned about a grille falling from a ceiling installation, we have provided a small amount of putty, which you can apply (sparingly) to the inside rim of the speaker before you insert the grille. The putty acts as an additional adhesive between the grille and the frame.

Sit back and listen, make sure there are no vibrations. This can occur from not doing up the screws.