

15° Degree Model

Overall

Cut-Out (Round x Depth)

K-6LCRS

6-1/2" In-Ceiling 15° Model

10-3/4" round

9-1/4" x 5"

Congratulations! You have purchased a high quality stereo loudspeaker. When matched to comparable electronic equipment, expect years of quality high fidelity sound. We are constantly striving to provide the very best technology has to offer.

The following manual is designed to give you, the installer or owner, basic information as to the speaker's installation and operation. It is beyond the scope of this manual to go into all the details that must be taken into consideration in a sophisticated high fidelity system. When installing the wiring and speakers it is important to adhere to all local codes and regulations. Consulting a professional can help to maximize your system's performance.

If you have any questions regarding this speaker which are not answered by this manual, contact your local dealer for assistance. For the most current information please visit www.preference-audio.com.

MINIMUM TOOLS REQUIRED

2 Phillips Head Screw Driver / Drill Driver
Wire Cutter / Stripper

Other Possible Tools

Tape Measure, Pencil, Ladder, Drywall Saw, Stud-Finder, etc.

GENERAL DESCRIPTION

These two-way speakers have specially designed woofers with linear long throw butyl rubber surrounds for long life and superior damping. Dome tweeters are utilized for excellent high frequency dispersion throughout your entire listening environment.

SHIPPING DAMAGE

Each speaker is thoroughly tested before it leaves the factory. However, in shipment, accidents may occur. Please inspect your speakers carefully when you receive them to make sure there is no damage. If there is, please notify your dealer or supplier immediately for assistance. If you received your speakers by public transportation, report the damage at once to the shipping company.

AMPLIFIER OPERATION

These speakers will perform well with amplifiers from 5 to 125 Watts RMS. However, damage to the speakers can be done by amplifiers of nearly any power rating if the amplifier is overdriven into clipping. "Amplifier clipping" is a phrase used to describe a condition when, because of the volume demand, an amplifier is being asked for more power than it can give. Clipping causes distortion of the audio signal. If you should hear an unusual amount of distortion at high listening levels then consider reducing the volume. **DAMAGE DONE TO A SPEAKER BY CLIPPING IS NOT COVERED UNDER THE WARRANTY.**

SPEAKER PLACEMENT

Placement of in-ceiling and in-wall speakers should be carefully considered. Please contact a professional for assistance if you are uncomfortable with the planning or installation process. Ideally,



K-6LCRS

the speakers should be located where they will provide the best possible sound and ease of installation. It is beyond the scope of this publication to discuss all of the various aspects of speaker placement. However, here are a couple quick suggestions.

For the front channels of a home theater we recommend that the speakers be placed between 18 and 36 inches (0.45m to 0.9m) from an adjacent wall/surface, as measured to the center of the hole. Avoid placing the speakers less than 12 inches (0.3m) from an adjacent wall. When placing speakers near a corner, avoid locating them an equal distance from the two adjacent surfaces.

If the drywall has not yet been installed, rough-in-kits are available to reserve the speaker location. The hole is cut when the drywall is installed. The cable can be tied off on the rough-in-kit after securing it to a nearby joist.

WIRING

To achieve maximum performance from your new speakers we strongly suggest the use of good quality stereo cable. We recommend that the cable be at least 16 gauge or larger for runs of over 50 feet (15m) and that the cable be double insulated. This is often referred to as "jacketed" speaker cable and CL-2 or CL-3 rated. "Zip cord," which is single insulated and is often made with clear insulation, should be avoided as it is not as durable. Allow about 2½ feet (0.8m) of free cable at the speaker cut-out and sufficient length at the other end to reach the electronics. Having to add extra cable later can be tedious and time consuming.

Avoid bundling speaker cables parallel to electrical cables for extended lengths. Though the impedance is low and the likelihood of interference low, this may help reduce hum and RF interference. When securing the cable, use care not to staple or nail through the electrical conductors. Doing so could result in a short that might damage the electronics.

When connecting your speakers, make sure proper polarity (phasing) is maintained. Simply put, this means being sure the

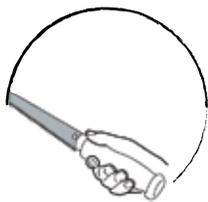
same wire which is hooked to the positive terminal of the amplifier has its other end hooked to the positive terminal of the speaker. It is important to check this on all speakers. If the connections on one of the speakers are reversed, (out of phase) the quality of your bass will be seriously impaired.

INSTALLATION

If the speaker locations have not yet been established then do so now. If possible, assess the area behind the ceiling for possible concealed obstructions such as wiring, heating ducts, cross-bracing etc. Absence of a crawl space will require greater study of observable clues and may also require the use of inspection holes and inspection tools (camera, mirror, flashlight, etc.). Use an "electronic stud finder" to locate the positions of the joists or studs. We recommend that the edge of the speaker holes be at least 3/4" (19mm) away from joists or studs whenever possible to allow clearance for the toggle clamps.

Once the speaker locations are established use the cardboard template or the plastic compass provided with your speaker to draw the speaker cut-out. The hole diameters for the various speakers are marked on the compass. The cardboard templates may also be used as a visual aid for placement of the speakers. To do this, temporarily hold the templates in place with a push tack or tape.

Using the proper tool cut the appropriate sized hole in the ceiling. On drywall, clean cuts can be made with a drywall saw.



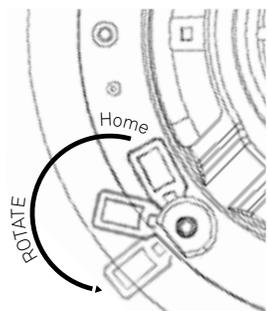
If the cable has not yet been run, do so now that you have better access to the ceiling. Once the speaker cable has been run, pull the end of the cable out of the speaker cut-out, strip back a section of the jacket as needed, and then expose 1/2" (13mm) of each conductor.

To aid in speaker performance, a fibrous material, such as fiberglass or polyester fiber, may be placed behind the speaker. This may also help to reduce unwanted sound from being transmitted into adjoining rooms. If the ceiling space has blown or loose insulation, it is important to prevent the insulation from entering the back of the speaker.

This can be accomplished by placing a batt of fiberglass insulation, fabric barrier, or bag over the back of the speaker. Alternatively you may use an **Insu-Flate ISF-147**, which is an acoustically transparent fabric cover specifically designed for this application. Placing a rigid enclosure behind the speakers can be done but the enclosure should be large enough not to degrade the performance of the speaker. Rigid enclosures of less than 0.75 cuft (21 liters) should be stuffed with acoustic insulation such as fiberglass.



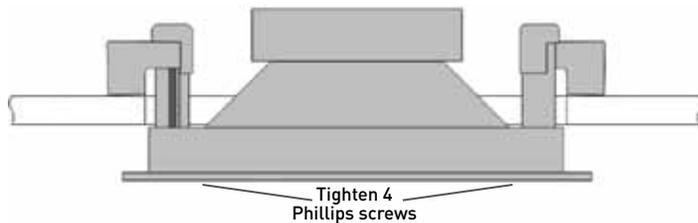
As the drawing shows, the speakers utilize Toggle Clamps which, after tightening, hold the speakers in place. Ensure that the toggle clamps are rotated into their "Home" position prior to installation. This way, they will clear the edge of the cut-out.



Verify that the speaker fits properly into the cut-out. If the hole should have been cut a little too large the flange on the speaker should cover this. Remove the speaker from the hole.

Connect the wire conductors to the terminals on the back of the speaker by depressing each spring terminal, inserting the wire into the hole, and releasing the terminal. Use care to observe the proper polarity (+ & -). Speakers wired out of phase will exhibit an apparent loss of bass response.

Insert the speaker into the hole and first rotate the screws counter-clockwise 1 turn to unseat the toggles. Then turn all four toggle screws the other direction (clockwise). As you start to turn each screw clockwise the toggle clamps will rotate outward to engage the ceiling material as shown. Before tightening all the screws, orient the speaker toward the listening area. Tighten all the screws. CAUTION: DO NOT OVER-TIGHTEN THE CLAMPS. Too much torque may damage the toggle, causing the speaker not to seat securely and it may also make it difficult to install the grille. A snug fit is all that is necessary to assure proper performance.



The frame and grille can be painted using multiple light coats of paint. Certain paints will require thinning to avoid clogging the grille's perforations. The frame and grille should be painted separately. Avoid getting paint on the speakers by masking them prior to painting the frame. The inner portion of the cardboard speaker template may be used as a paint mask.

Adjust the pivoting tweeter by aiming it toward the listening area. This will raise the amplitude of the highest frequencies (>12kHz), adding brilliance.

USE CARE TO AVOID DAMAGING THE DOME OF THE TWEETER WHEN AIMING!

The mid and high frequency levels can also be adjusted as desired using the mid frequency (MF) and high frequency (HF) switches. The MF switch is on the left and the HF switch is on the right, when looking at the foam surface when the speaker is installed in the ceiling. Moving the switches to the left decreases the level and to the right increases the level. See diagram.



Attach the grille to the frame by carefully pressing it into place. Should you wish to remove the grille from the speaker, pull at the grilles' edge using the supplied grille-removal tool or a sturdy pointed instrument.

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