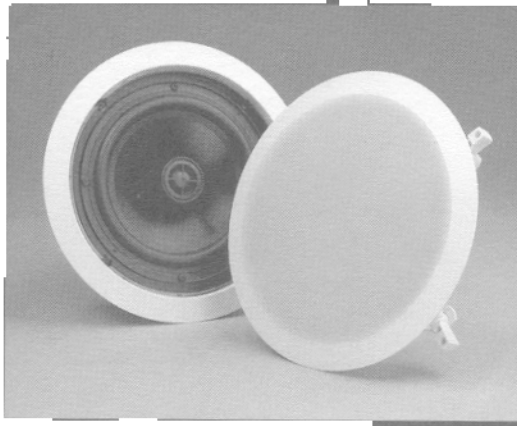


Ambiance[®] 50, Ambiance[®] 60
Two-Way In-Ceiling Speaker Systems



Ambiance 50, Ambiance 60 Two-Way In-Ceiling Speaker Systems

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Introduction

Thank you for purchasing an *Ambiance* in-ceiling speaker system. It will provide natural, balanced sound reproduction without taking up space in your listening room. Their superb acoustic performance makes them suitable for use as main speakers in a home theater or music system. *Ambiance* speaker systems are easily installed by anyone from a professional installer to a do-it-yourselfer, while their in-wall design provides nearly invisible background music. The white finish may be easily painted to match the surrounding surface (refer to page 4). Both models share similar performance throughout the critical mid- and high-frequency range. They differ primarily in bass extension and maximum output level. Both models use the same silk-dome tweeter for smooth high frequency reproduction. The tweeter is swivel-mounted so it can be directed towards the listening area. A self-resetting automatic protection circuit protects the tweeter from damage due to

overpowering or excessive distortion. The woofer drivers use an injection-molded polymer cone with butyl rubber surround. The assembly is both durable and sonically peerless.

About This Manual

Care in speaker placement and installation will pay dividends in optimum enjoyment. This booklet provides tips and instructions to help you get the most from your loudspeakers. Please read it through thoroughly before proceeding with the speaker system installation.

Installing *Ambiance* speaker systems is straightforward and may be performed by an experienced do-it-yourself homeowner. However, some familiarity with typical home construction is necessary.

This manual assumes the installer possesses skill in the proper use of hand and power tools, a knowledge of local fire and building codes, and a familiarity with the area above the surface of the ceiling where the speakers will be installed.

Note: Cambridge SoundWorks will not assume any responsibility for the integrity of the attachment of the speaker and its mounting brackets to a wall or ceiling. The quality of the installation is solely the responsibility of the installer.

Cambridge SoundWorks is not responsible for any damage resulting from the installation or installation process, or due to wiring or materials used in the installation.

If you are not comfortable with performing a speaker system installation, we recommend you rely on a qualified home entertainment installer. Contact your dealer or Cambridge SoundWorks for assistance in selecting a suitable installer.

Tools Required

1. Stud-finder.
2. Pencil.
3. Drill with 1/4" bit (for plaster ceilings).
4. Utility knife, jigsaw, drywall router, or other means of cutting a hole in the mounting surface.
5. Wire cutter and/or stripper for preparing speaker wires.
6. #1 Phillips screwdriver.

Placement

Unlike freestanding loudspeakers (which can be easily repositioned), an in-ceiling speaker system installation is permanent. The homeowner and installer should work together to determine the best locations. The ideal positions should provide an unobstructed sound path from the speakers to the listeners. In some instances, a compromise between ideal location and appearance may be necessary.

Because the new *Ambiance* speaker systems have wide-dispersion and adjustable-angle tweeters, there is a great deal of flexibility in placement. For the best stereo effect, separate the speakers by at least four to eight feet. The ideal separation is roughly equal to the distance of the speakers from the listening space. For good stereo imaging, try to place the left and right speakers at a similar distance from the primary listening position.

Try to keep the speakers at least 18" away from room corners or wall/ceiling borders. This avoids the detrimental effects of sidewall/ceiling echoes and the loss of precise stereo imaging.

Ambiance speaker systems are not magnetically shielded. The minimum acceptable distance either speaker can be placed from a TV monitor depends on the monitor's sensitivity to magnetic fields, but will typically be a foot or more. If relevant, make sure the magnetic field of the speaker will not distort a nearby television's picture before you decide on a permanent location.

These speaker systems have been designed to accommodate standard ceiling construction depths, but sufficient in-ceiling mounting depth should be verified. Before starting any drilling or cutting, refer to the chart on page 7 to verify that enough mounting depth is available for the speaker system purchased.

Wiring

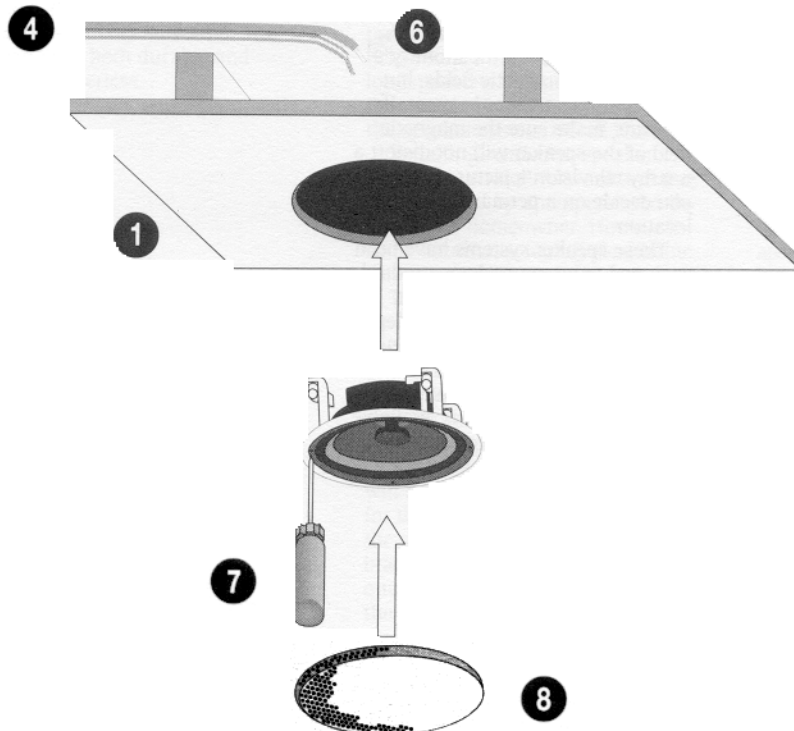
Pre-wiring new construction is strongly recommended if possible. Access to a basement, attic, or crawlspace can simplify the task of routing wires to the appropriate locations. If you are a do-it-yourself homeowner, you may wish to hire a professional to run the wires, even if you are planning on mounting the speakers yourself.

The wire connectors on the *Ambiance* speaker system will accept up to AWG #12 speaker cable. A minimum of AWG #16 should be used for runs up to 50 feet, with AWG #14 for runs from 50-100 feet. Runs longer than 100 feet should use AWG #12. Make sure the wire you choose is rated for in-wall use. Check with the local building inspector if you are unsure.

Installation

Conventional Plaster or Drywall Ceilings

1. Decide roughly where to place each speaker. Using a stud-finder (or other means), locate any joists near these locations. Adjust speaker placement so the ceiling cutout is not located directly below a joist. The cutout should be at least $\frac{3}{4}$ " away from any joist.
2. Some speaker adjustment is available within the cutout. Use the supplied template to outline the area to be cut.
3. When cutting into a ceiling, be careful not to damage wiring, conduit, or plumbing. A lath-and-plaster or plaster skim-coat construction ceiling is prone to spreading cracks. To reduce cracking in these ceilings, score the plaster surface along the marked cut line with a utility knife to a depth of at least $\frac{1}{8}$ ". Also, drill a $\frac{1}{8}$ " hole before cutting. Make the cutout using your preferred tool.



4. If you have not already done so, run the speaker wires to the source or local room volume control.
5. The ceiling may contain some form of insulation. Fiberglass batting should be left in place, as it is sonically desirable and will hold its shape. Remove blown in-type insulation from the air space behind the speaker. Replace it with a pad of fiberglass batting at least 50% larger than the cutout in each direction. Installing fiberglass batting in the space between the studs is also recommended, since it will improve sound quality. **Note:** Wear gloves when handling insulation.
6. Locate the speaker wires and strip $\frac{3}{8}$ " of insulation from the ends. The stripped ends can be directly inserted into the speaker wire connectors. **Note:** Speaker cable has various means of identifying the two conductors, either by color, a molded-in stripe, or markings on the jacket. Be consistent with all the connections within the system. On the *Ambiance* speaker system, use the

- red terminal for "+", and the black terminal for "-".
7. A smooth, flat ceiling surface will provide the best air seal and most secure installation. If you must install the speakers in a rough, uneven surface, use a strip of foam gasket tape or a bead of caulk along the back of the speaker's mounting flange. This provides a good air seal for maximum bass response. Position the speaker in the cutout. Using a #1 Phillips screwdriver, tighten the four Phillips screws along the edges of the speaker. The swing arms on the opposite ends of the screws will extend and grip the rear of the mounting surface. Only moderate force is necessary to secure the *Ambiance* speaker system to the mounting surface. Be careful to not over-tighten.
8. Install the speaker grille. **Note:** If desired, you may paint the grille and frame to match the room decor before installation. To paint the speaker, do not install the grille. Instead, place the paint shield (the center punch-out section of the template) in place of the grille to

protect the baffle surface and drivers. Paint the grille and frame separately, being careful not to fill in the small holes in the grille. A fan, or hair dryer on "cold" setting, can be used to blow paint out of the out holes in the grille while the paint is still wet. After the paint is completely dry, remove the paint shield. Replace the grille, being careful not to scratch the newly painted surfaces. Save the paint shield for future repainting.

Suspended Ceilings

1. Select the tile you wish to use to mount the speaker. Remove it from the grid. Examine the space above the tile to make sure there are no obstructions.
2. Use the supplied template to outline the area to be cut. Make the cutout using your preferred tool.
3. Install the speaker into position. Using a #1 Phillips screwdriver, tighten all four mounting screws. The swing arms will extend to hold the speaker firmly in position.

4. Install the speaker grille. **Note:** painting the speaker refer to 8, page 4.
5. If you have not already done so, run the speaker wires to the source or a local room volume control.
6. Locate the speaker wires and $\frac{3}{8}$ " of insulation from the ends. The stripped ends can be directly inserted into the speaker wire connectors. **Note:** Speaker cable has various means of identifying the two conductors, either by color, a molded-in stripe, or markings on the jacket. Be consistent with all the connections within the system. On the *Ambiance* speaker system, use the red terminal for "+", and the black terminal for "-".
7. Reinstall the ceiling tile into its supporting grid.

About Amplifier Power

The amount of power needed to drive loudspeakers varies significantly. It is effected by factors such as the size of the room, absence or presence of in-wall volume controls, the acoustics, the type of music, and how loud you play the speaker.

Even the smallest *Ambiance* speaker system can safely play music with the most powerful home amplifiers and receivers. Distortion caused by overdriving either the speaker or associated equipment can cause damage, even if the amplifier or receiver power is within the capabilities of the speaker.

If the sound becomes "grainy" or "gritty", you may be overdriving the amplifier or receiver. This type of distortion can damage tweeters, even from a low powered amplifier. Turn down the volume until the distortion disappears. If the new level is not loud enough for your needs, you may need a more powerful amplifier. Contact the retailer where you purchased your speakers, or a Cambridge SoundWorks Audio/Video Consultant for advice.

Keep the volume turned down when connecting or disconnecting components in order to prevent damage from strong, non-musical transients. This will help protect your ears as well as the speakers.

If the speaker is overdriven for an extended period, the high-frequency output will be reduced. This is a result of the automatic tweeter protection built into each speaker. If this occurs, simply reduce the volume and the circuit will automatically reset.

In Case Of Difficulty

If you suspect there is a problem with your *Ambiance* speaker system, contact the retailer where they were purchased or a Cambridge SoundWorks Audio/Video Consultant, who will help you track down the problem. If together you agree there is something wrong with your *Ambiance* speaker system, return it to the retailer that sold it to you. Mail-order and Internet retailers will generally require a Return Authorization number. Products purchased from a Cambridge SoundWorks store may be returned directly to the store. If you are no longer near a Cambridge SoundWorks store, you may call us for a factory Return Authorization. Do not return the *Ambiance* speaker system or any parts without first obtaining a Return Authorization.

10-Year Limited Warranty

To the original purchaser, Cambridge SoundWorks, Inc. warrants the *Ambiance 50* and *Ambiance 60* loudspeakers to be free from defects in material and workmanship for a period of ten (10) years from date of purchase. With respect to defects, Cambridge SoundWorks will, at its option, replace the product or repair the defect in the product with no charge to the original purchaser for parts or labor.

This warranty does not extend to any defect, malfunction or failure caused by misuse, abuse, accident, faulty hookup, defective associated equipment or use of the speaker with equipment for which it is not intended.

This warranty is valid only when the speaker is returned to an authorized store where it was purchased. Or, if you bought directly from Cambridge SoundWorks, call for a Return Authorization Number for the unit and return it to the accompanying address, freight prepaid, together with a copy of the original sales slip to establish warranty status. Please do not return the *Ambiance 50*, or *Ambiance 60*, or any of its parts, to the factory without prior authorization.

This is the sole and express warranty. This warranty is in lieu of all other warranties, expressed or implied, of merchantability, fitness for purpose or otherwise. In no event shall Cambridge SoundWorks be liable for incidental or consequential damages or have any liability with respect to defects other than the obligations set forth above.

To ensure warranty coverage it is incumbent upon the original purchaser to inform Cambridge SoundWorks or any of its Authorized Service Agencies of the defect within the warranty period. The only acceptable method of establishing warranty status is a copy of the original proof of purchase indicating customers name and purchase date.

For warranty information contact:

Cambridge SoundWorks, Inc.
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Newton, MA 02464
1-800-FOR-HIFI
(1-800-367-4434)
Outside US or Canada:
Tel: 617-332-5936
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Specifications

Ambiance 50

Speaker Type: 2-way, infinite baffle

Woofers: 5 1/4"

Tweeter: 3/4" silk dome

Frequency range: 45-20,000 Hz

Recommended Amplifier Power Range: 10 W-75 W RMS

Sensitivity (2.83V @ 1 meter): 86 dB

Nominal Impedance: 8 Ohms

Overall Dimensions (Dia x D): 8" x 3 1/8"

Mounting Hole Dimension: 6 1/2"

Mounting Depth: 2 3/4"

Ambiance 60

Speaker Type: 2-way, infinite baffle

Woofers: 6 1/2"

Tweeter: 3/4" silk dome

Frequency range: 35-20,000 Hz

Recommended Amplifier Power Range: 10 W-100 W RMS

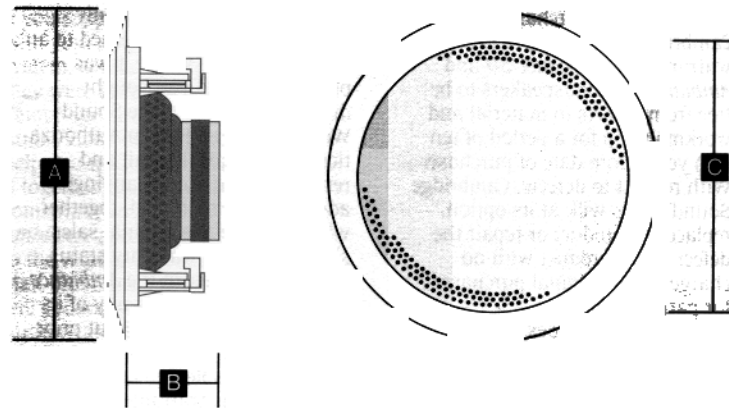
Sensitivity (2.83V @ 1 meter): 87 dB

Nominal Impedance: 8 Ohms

Overall Dimensions (Dia x D): 9" x 4"

Mounting Hole Dimensions: 7 1/2"

Mounting Depth: 3 1/2"



	Ambiance 50	Ambiance 60
A Overall Diameter	8"	9"
B Mounting Depth	2 3/4"	3 1/2"
C Cutout	6 1/2"	7 1/2"