

REVEL®

C363, C363DT, C583, C783,
C563DT, C383, C583, C783

**In-Ceiling Architectural
Loudspeaker
Instruction Manual**



**AVAILABLE AT
DIGITAL CINEMA**



Documentation of Use and/or Installation

This document contains general safety installation and operation instructions for the **FLUOR® C90, C95, C98, C99, C90, C95, C98, C99, C9000, C9500, C9800, C9900** in ceiling loudspeakers. It is important to read the document before attempting to use this product. For particular attention to:

WARNING: Calls attention to a procedure, practice, condition or the like that, if not correctly performed or followed to, could result in injury or death.

CAUTION: Calls attention to a procedure, practice, condition or the like that, if not correctly performed or followed to, could result in damage to an installation or part of the entire product.

Note: Calls attention to information that will be in the Installation or Operation of this product.

ABOUT FLUOR[®] IN-CEILING SPEAKERS

Since the first Fluor[®] speaker in 1980, Fluor products have earned the reputation of loudspeaker design and performance. Fluor's ceiling loudspeakers have earned the world's research, consumer advocacy and professional third-party loudspeaker industry loudspeakers. Fluor's ceiling loudspeakers provide unparalleled value and are known for their consistency, long-term reliability and their freedom from distortion over an exceptionally wide dynamic range.

IN-CEILING LOUDSPEAKER HIGHLIGHTS

- Long-term reliability with over 40 years available service provides high customer lifetime benefits.
- Line 1 (FLU) and Line 2 (FLU2) models, model design number with an integrated transformer provides optimal response between and off axis.
- High-order crossover network with precision quality components delivers extra-ordinary accuracy, reliable reproduction.
- Secondary compression cabinet (C90, C95) low pass, adjusts the speaker to maintain tonal accuracy when the speaker is placed near walls.
- Two-panel design (FLU) or one (C90/C95/FLU2/C98) for privacy with optimum response in a variety of architectural environments, or for using the speaker as a through-the-ceiling.

PRODUCT REGISTRATION

Please take a moment to register your product on our Web site at www.fluorloudspeakers.com. You'll receive a welcome kit, printed or on-line help and technical manuals and help with any questions or concerns and could probably find more than you need and save money.

BOX CONTENTS

Your Fluor in-ceiling loudspeaker(s) should contain the following items:

- In-Fluor mounting loudspeaker
- 4 screws/pills
- 4 spacers/pills
- 4 screws with washers for round pills
- 4 screws with washers for square pills (with optional foam pads)
- Mounting template
- Installation manual

UNPACKING THE SPEAKER

Carefully unbox the speaker. If you suspect damage to the speaker, report it immediately to your dealer and/or the factory directly. Keep the original carrier and packing materials for future use.

INSTALLATION CONSIDERATIONS

Your new Fluor in-ceiling speaker(s) has been engineered to provide extremely accurate and dynamic tonal fidelity. Any speaker's ultimate performance will be affected by the speaker's placement in the listening room and the acoustics of the room. For all listening angles and environments the standard form of these new loudspeakers, careful attention to the placement of your Fluor in-ceiling loudspeakers will have a significant impact on the general performance of the loudspeakers.



SPEAKER PLACEMENT FOR DISTRIBUTED SOUND

- One channel sound is spread evenly throughout the room, place the loudspeakers as widely as possible to cover sound coverage throughout the area.
- Place the left and right loudspeakers roughly the same distance from the primary listening area.
- Use a "Toe-in" when the sound is critical, place two more loudspeakers without stereo delay or time delay.

SPEAKER PLACEMENT FOR TWO CHANNEL STEREO

Place the left and right loudspeakers the same distance from the primary listening area (as close to the same distance as possible). The distance from the speakers to the listener seat should also be the same as the same distance possible.



Make the distance between the left and right loudspeakers slightly less than that distance from the primary listening area.

SPEAKER PLACEMENT FOR HOME THEATER

- The front left, center and front right loudspeakers should be symmetrical to the side display.
- The front left, center and front right loudspeakers should be closer to the side display than the main listening area. For example, if the side display is 8 ft from the main listening area, the loudspeakers should be 5-6 ft from the main listening area.
- The front left and front right loudspeakers should be relatively close to the sides of the side display. For example, front left and front right loudspeakers can be either 50 and 50 inches display width, placed generally to increase the field of the display.
- The center loudspeaker should be aligned with the center of the side display.
- The rear center loudspeaker should be at the same distance from the main listening area as possible as rear 2 feet 6 inches from side and rear walls.

3.0 Channel Speaker Placement

- In all channel systems, the correct left and rear center loudspeakers should be located to the side of, and approximately 18 degrees behind, the main listening area.



5.0 Channel Speaker Placement

- In all channel systems, the correct left and rear center loudspeakers should be located to the side of, and approximately 18 degrees behind, the main listening area.
- In all channel systems, the correct front left and rear right loudspeakers should be as close to the primary listening area as possible as far from the main listening area (2-1/2 ft) from the side and rear walls.



COOLSPHERES™ PLACEMENT FOR DUAL TWENTY STEREO MODELS

Because single tweeter tweeters are a cooling speaker technology, they are designed for compatibility. It will allow maximum performance from a wide variety of tweeter locations where control of these speakers would be important, including balcony, balcony and more.

INSTALLATION INSTRUCTIONS

CAUTION: Do not use the speaker mounting tabs or plastic to secure, clamp or position the speaker. Doing so may damage the tabs. Such damage is not covered by the speaker's warranty.



Read and follow speaker's manual carefully to install. Please read your air conditioner manual and follow the instructions to help ensure clean installation, as if you are one of our customers ready to use the speaker properly, please contact your dealer to assist you.

WARNING: KEANAN International is not responsible for improper installation of loudspeakers or for any personal injuries or product damages resulting from improper installation or a failure to follow instructions.

CONNECTING TO THE AMPLIFIER

CAUTION: Mount Points

Do not connect the speaker wires to the amplifier if fully installed. To prevent the cables, speakers and components from damage or injury through accidental electrical shorting and/or power being installation, set all amplifier system power OFF before beginning the speaker installation.

Speaker Wire

Use high quality speaker wire to reduce the impedance from your Dual 20-ohm speaker.

- For wire length of less than 100 ft (30m), use at least 16-gauge speaker wire.
- For wire length between 100 ft and 1000 ft (30m - 300m), use at least 14-gauge speaker wire.
- For wire length of greater than 1000 ft (300m), use at least 12-gauge speaker wire.

Note: All speaker wires must comply with all local building and safety codes for use in its wiring applications.

Wiring Connections

Connect each channel's positive (+) terminal on the back of the amplifier or receiver to the positive (+) terminal on the corresponding speaker system with speaker's supplied (included) or the back of the amplifier or receiver to the negative (-) terminal on the corresponding speaker. Do not misconnect (that is, do not connect + to + or - to -) interconnecting connections. Doing so will cause poor imaging, diminished bass response.



Place your ear on the top of the terminal to ensure the hole is not too far out of the terminal. The hole and terminal are notched to secure the wire.

CAUTION: To avoid short circuits, always use two-speaker equipment. Be certain that positive and negative wires connect to correct each other and do not touch metal parts such as the speaker frame.



INSTALLING THE SPEAKERS

For New Installation

If you intend to install a speaker in a hole for the speaker before the drywall is installed, use care to ensure you will locate and purchase the necessary dry wall patch for your loudspeaker model from your contractor. Most manufacturers have mounting instructions and supplied with the range in size. After the drywall is installed, follow the installation instructions in the Wiring Connections below.

For Existing Installation

Note: The installation procedures in this manual for all models intended by this manual.

1. Insure that the drywall, sheetrock or other ceiling material is 1/2" - 5/8" (13mm - 16mm) thick and capable of supporting the weight of the speaker being installed.

Make sure to allow at least 1/2" (13mm) between the edge of the supplied installation template and any ceiling or other obstruction (such as wood) so the speaker's holding mechanism will have room to engage fully. Perform an alternative safety check to ensure that there are no hidden objects, pipes, wiring, electrical conduits or the ceiling cavity that will interfere with the speaker.



2. Determine the correct speaker location and use the template included with the speaker to mark the ceiling material.



3. Cut the ceiling drywall along the mark you made in Step 2 to create the mounting opening.



4. Connect the speaker to the amplifier as explained in Connecting the Amplifier output.



5. Attach the speaker's screws into a support bar, as per the ceiling supports.



6. Make sure all four speaker straps are in their "ready to mount" position.



3 Insert the speaker magnet into the mounting opening. Tighten the speaker clamp screws on the front of the speaker grille. The speaker clamps will automatically locate the speaker and help compensate for speaker misalignment.

• When you reattach screws on the screen the speaker has been changed permanently.

IMPORTANT: Always use low temper settings. **NEVER** use higher than a long screen.



4 Insert the supplied screen opening grille. Press the magnets in the speaker frame will snugly hold the grille in place.



Finishing the Grille

Real architectural woodgrain finishes are best painted to match any color if you wish to change the grille color. Do water base wall finishes in a separate room. For the best results follow this procedure:

1 Gently remove the entire stain from the back side of the grille before painting.

2 Use vinyl quality spray primer and apply a thin coat of white primer. Let the primer finish before you paint. Use a brush (filling the ribs) with natural bristles or the sprayer must spray. If any primer is on the plug, use compressed air to blow the paint out of the perforations.

Note: If you find any grille perforations that are plugger/hold paint after the primer has dried, carefully use a straight pin or sewing needle to remove the paint.

3 Remove ink and mark and remove the replacement color. After the paint has dried, apply a light coat of water adhesive to the woodgrain perforation/grille color with a flat wood stain. **WARRANTY:** Do not spray adhesive on the ribs. The spray color will fill the gap, and the paint will finish to give the grille the staining appearance.

USING YOUR SPEAKERS

ALIGNMENTS

Adjustable Angle Tweeter (CNC/CH/CH/CH/CH/CH/CH)

When tweeter using speaker models allow you to adjust the angle of the tweeter. To change the angle, press on the tweeter's outer ring as shown in the illustration below. Do not use a metal tweeter's tweeter tweeter or compressor.



Boundary Compensation Control (BCC/CH)

The Boundary Compensation control adjusts the speaker's low output level to compensate for the power reflection of the boundary when the speaker is placed near a wall.

When possible, and if necessary, the speaker without BCC should be used if your placement is close to a wall. Use the Boundary Compensation control to the "0" position.



High-Frequency Loud Caster (20W/2000Hz)

The High-Frequency Loud Caster lets you hear the speaker's high-frequency output to compare it for various acoustic environments.

The control has three settings:

• **Maximum High-Frequency output:** For the loudest music position if the user frequently listens to the highest high-frequency sound energy, such as rock recording, stages and live-clubbed functions.

• **Normal High-Frequency output:** For the sweetest or "flat" position for most music.

• **Minimum High-Frequency output:** For the softest or "flat" position if the user frequently listens to the lowest high-frequency sound energy, such as large orchestral ensembles, live the live settings, square of live sets, or live systems or orchestral ensembles.

EXHAUSTION OUTPUT (EXHAUST)

The Exhaust Loud Speaker is a new custom designed transducer and high-quality network components featuring high-efficiency with steep slope, thereby increasing the potential of damage to individual speaker drivers and help the loudspeaker maintain their performance over longer sound-reproduction periods. However, all loudspeakers have limits, and excessive listening to continuous programs, excessive time, and/or playback at excessive levels that result in distortion or physical wear.

SEE USER'S MANUAL

To check service centers or authorized dealers, follow the limited warranty below for more information.

DISCLAIMERS

	Mounting Spacing/Dimension	Mounting Depth	Special Mounting (optional)
10000	0.50" (12.7mm)	5.00" (127mm) deep	Mounting Spacing: 0.50" (12.7mm) deep
10000	0.50" (12.7mm)	5.00" (127mm) deep	Mounting Spacing: 0.50" (12.7mm) deep
10000	0.50" (12.7mm)	5.00" (127mm) deep	Mounting Spacing: 0.50" (12.7mm) deep
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10000	0.50" (12.7mm)	5.00" (127mm) deep	Mounting Spacing: 0.50" (12.7mm) deep

Dimensions are subject to change without notice.

For complete performance specifications, please go to the Bose/Bose the website www.bose.com.

LIMITED WARRANTY

Warrantee serial number is subject to warranty coverage. This Bose warranty protects the original retail purchase for a period of two (2) years (parts included) from any failure or normal or expected manufacturing tolerance (up to 2).

- The Bose product is covered under the full limited warranty in territories in Canada.
- The dealer from whom the Bose product was purchased was authorized to sell such products at the time of the original purchase.
- The original, dated Bill of Sale is presented whenever service is requested during the warranty period.

The failure of this warranty is transferable only if the user product is purchased from an authorized reseller. The warranty is only valid for service within the United States, its territories and Canada; please contact an authorized Bose dealer for warranty and service information.

Any Bose product not purchased authoritatively may be covered for the lifetime of the manufacturer. Before authoritatively purchasing, please contact your dealer or writing Customer Service, please contacting the product. The customer is responsible for shipping charges in the

United States; only the cost for the product is not subject to shipping charges. There are other exceptions that may apply to shipping charges.

There is no other express warranty on this product for the life of the warranty nor any other warranty against or implied (including implied warranties of merchantability, fitness, and/or a certain period of warranty period). No responsibility is assumed for any incident or consequential damages, or that the above conditions or limitations may change.

The warranty applies specifically to rights. Other users may provide additional warranties. The warranty is applicable in the United States, its territories and Canada. Details of the United States, its territories and Canada, please contact an authorized Bose dealer for warranty and service information.

The information this document contains is subject to change without notice. For the most current information, please contact the warranty and the provisions of any amendments, modifications, printed materials or packaging contents. The terms of this warranty will prevail.



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of our products, call us at 1-800-833-8333 or 1-800-833-8333.

For technical support, submit your technical inquiry at:
support@vsp.com

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