



PURERESONANCEAUDIO[®]

C3 3" MICRO CEILING MOUNT SPEAKER

INSTALLATION AND OPERATION MANUAL



Caution: Please read this manual carefully before operating.
Damage caused by misuse is not covered by the warranty.

INTRODUCTION

DESCRIPTION

The Pure Resonance Audio C3 3” micro ceiling loudspeaker's stylish design is compact and lightweight. Featuring a 70-volt and 8-ohm transformer, the C3 ceiling speaker is perfect for background music in offices, retail stores, restaurants, hotels, foyers, and commercial spaces. The small enclosure contains a full-range 3” paper cone driver with a rubber surround that delivers an impressive 120Hz - 20kHz frequency response and 85dB sensitivity. The C3 is quick and easy to install with the included screw-on Easy-Mounting threaded mounting ring.

FEATURES

- Compact and lightweight
- Smallest possible footprint while maintaining powerful quality sound
- Intelligent, recessed design that seamlessly blends into the ceiling
- Power tap transformer switch for selectable 8 ohm or 70V/100V operation
- 85dB sensitivity provides quality sound
- Quick and easy installation with the Easy-Mounting threaded mounting ring
- Optional C3-DM drywall mount and a C3-PK pendant mounting kit are available

SPECIFICATIONS

Frequency Response	120Hz - 20kHz
Low Frequency (-10dB)	180Hz - 20kHz
Impedance	8 Ohms with 70 Volt transformer (Built-in)
Maximum Input Voltage	17dBV (7.1V, 6W into 8Ω)
Power Taps	70V: 1.5W/3W/5W 100V: 3W/6W/10W
Transducer	Full-range 3” driver
Speaker Cone Material	Paper driver with butyl rubber surround
Nominal Coverage Angle	130° Conical Coverage
180° Coverage Angle	-1dB @ 1.25kHz -5dB @ 2.5kHz
140° Coverage Angle	-10dB @ 10kHz
Sensitivity SPL	85dB @ 1W/1m
Maximum SPL	89.6dB referenced @ 1m
Cutout Size	4.25” (107.95 mm)
Easy-Mounting Ring (Dia)	5.125” (130.18 mm)
Bezel (Dia)	4.88” (123.95 mm)
Mounting Depth (Dia x D)	3.16” (80.26 mm) without connector 3.88” (98.55 mm) with connector
Overall Dimensions (Dia x D)	4.125” (104.78 mm) x 4” (101.6 mm) without connector 4.125” (104.78 mm) x 4.69” (119.13 mm) with connector
Weight	1.6 lbs (0.73 kg)

SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use. The included conventions of safety symbols and messages are regarded as very important precautions.
- We recommend you keep this instruction manual handy for future reference.

SAFETY SYMBOL AND MESSAGE CONVENTIONS

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating this product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety risks.



Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



IMPORTANT SAFETY INSTRUCTIONS

*****THIS PRODUCT MUST BE INSTALLED BY A QUALIFIED TECHNICIAN.
THE PROVIDED INSTALLATION HARDWARE MUST BE USED TO INSTALL THIS PRODUCT.
SPEAKER UNIT MUST BE ATTACHED BY A SAFETY CABLE!*****

Pro Acoustics is not responsible for the structural integrity of the installation. Please make sure a qualified technician installs this product and the building's engineer or architect has approved the equipment and installation.

1. DO NOT block any ventilation openings. Install in accordance with all safety standards and regulations.
2. DO NOT allow any water exposure to speakers.
3. Ensure that no damage to speaker wire is present when installing. Frayed or unterminated wires can lead to electrical or fire danger. When preparing wires, make sure your amplifier is turned off & unplugged.
4. AVOID instability in the installation or set up of speakers, to avoid personal injury or property damage.
5. Confirm area where speaker will be installed is structurally sound without signs of damage or structural issues.
6. DO NOT plug in speaker while hands are wet. May lead to electric shock.
7. MAKE SURE to pull plugs, rather than pull wires. The use of strained or damaged speaker wire may cause fire or electric shock.
8. When connecting/disconnecting speakers, take care to remove the speaker connector without pulling out the wires. Contact with bare wires when energized can lead to electrical shock.
9. AVOID installing speakers in humidity or dust, direct contact with the sun, near electric, smoke or steam. May cause fire or electric shock.

***WARNING:** To prevent injury, this apparatus must be securely attached in accordance with the installation instructions. No naked flame sources, such as candles, should be placed close to the product.

***CAUTION:** Changes or modifications not expressly approved by the manufacturer could void the user's warranty.

INSTALLATION & OPERATION GUIDE

SPEAKER PLACEMENT

- If you desire music over a wide area, it is best to have a larger number of speakers playing at low volume, rather than a few speakers playing at high volume. Keep this in mind when designing your system.
- Ideally, you should place the speakers as close to the primary listening area as possible. The perceived volume of the speaker decreases rapidly as it is moved further from the listener.

CONNECTING THE SPEAKER TO YOUR SYSTEM

1. The 4-pin Euroblock plug allows for speaker wire input as well as speaker wire output to easily daisy chain speakers in 70V applications.
2. Determine the locations for the speakers and estimate the length of the additional wire you will need for each speaker.
3. Connect the speaker wires from your amplifier to the ceiling speakers.

IMPORTANT: Be sure not to let any stray “+” and “-” strands touch each other. Touching strands can cause a short circuit that could damage the amplifier.

PLEASE NOTE:

Confirm that you have connected the speaker “+” to the amplifier “+” and the speaker “-” to the amplifier “-”.

4. Turn your amplifier on and test the system with your favorite music.

IN-CEILING MOUNTING

PLEASE NOTE:

Before beginning installation, be sure to take precise measurements.

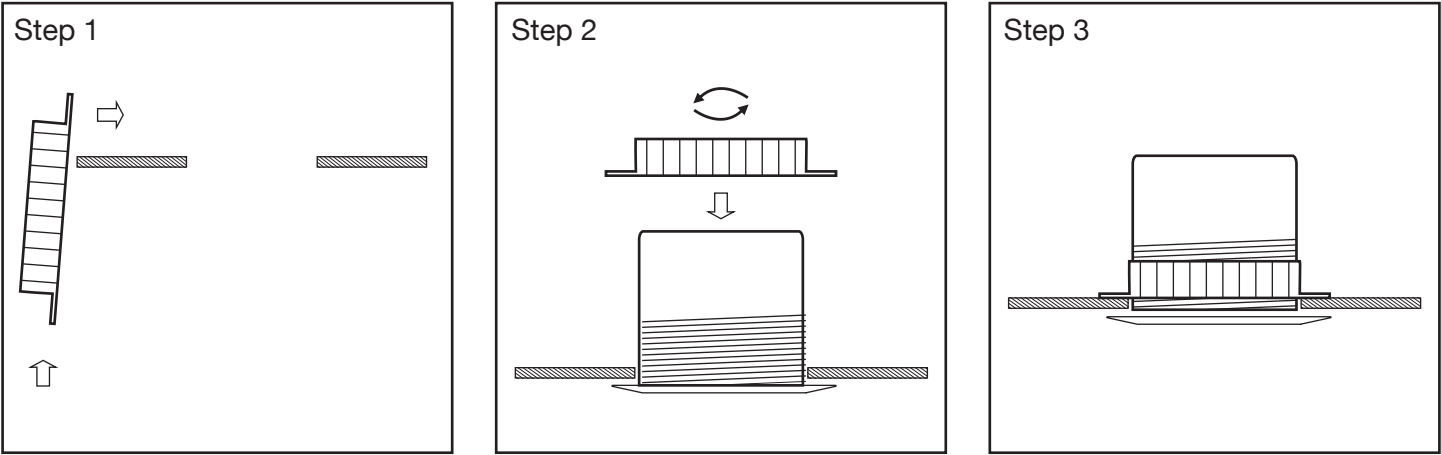
1. Select speaker location.
2. Run the speaker wire to the desired position.
3. Use the provided cut-out template to measure 4 1/4” diameter carefully and cut your hole in the ceiling in the desired position. If mounting into an acoustic tile ceiling, remove ceiling tile when attaching the speaker.
4. Unpack the speaker unit and remove the mounting ring.
5. Insert the speaker into the hole in the ceiling. Place the threaded mounting ring on the back of the speaker.
6. Rotate the mounting ring onto the ceiling speaker until it is tight.

PLEASE NOTE:

It is also recommended to attach the speaker unit using a safety cable. Check local safety code requirements. Cable and hardware not provided.

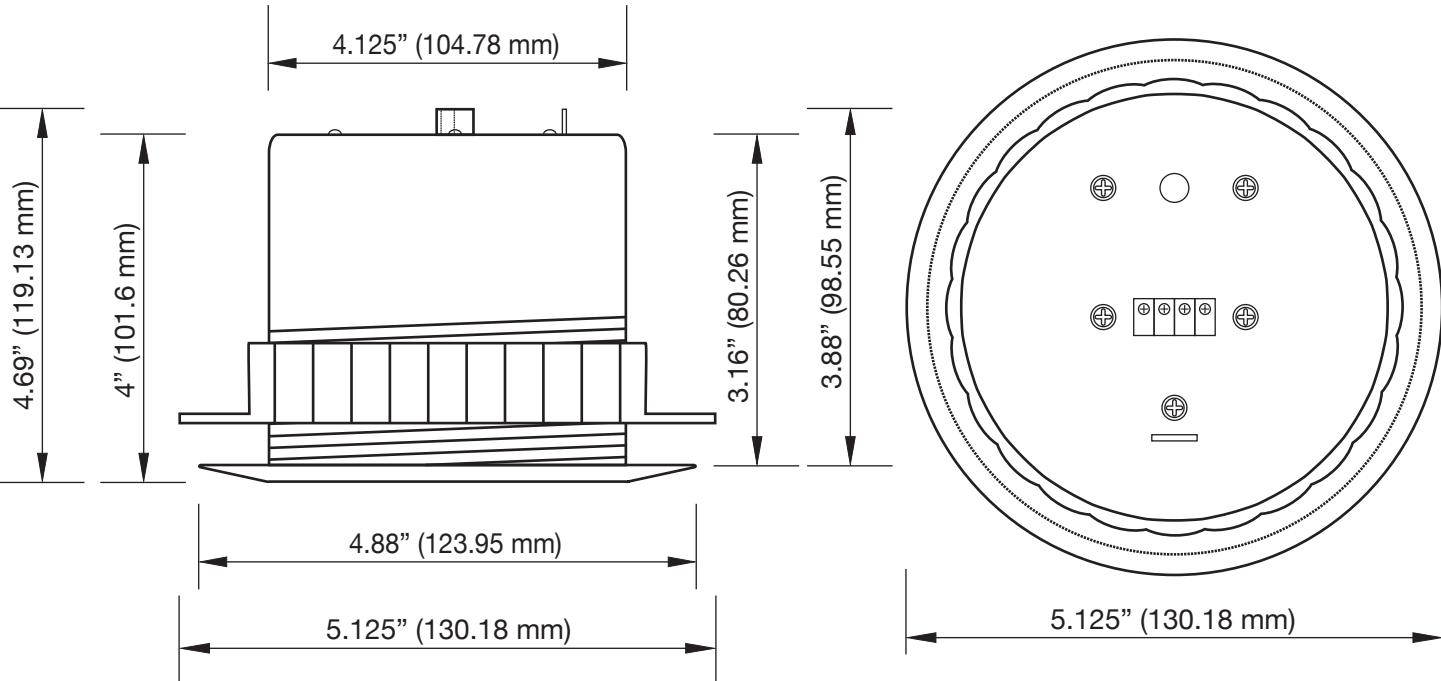
7. Run the speaker wire.
8. Connect the speaker wire to (+) and (-) inputs. Use the extra (+) and (-) for daisy-chaining.
9. Select the desired tap setting.
10. Your speaker should now be securely installed.

SPEAKER INSTALLATION

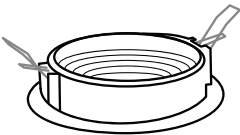


- Step 1:** Put the mounting ring over the hole in the ceiling tile.
- Step 2:** Rotate the ceiling speaker into the ring until it is tight.
- Step 3:** Finish installation.

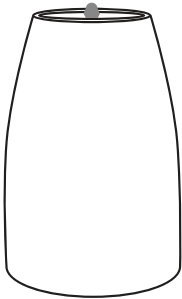
DIMENSIONS



OPTIONAL ACCESSORIES



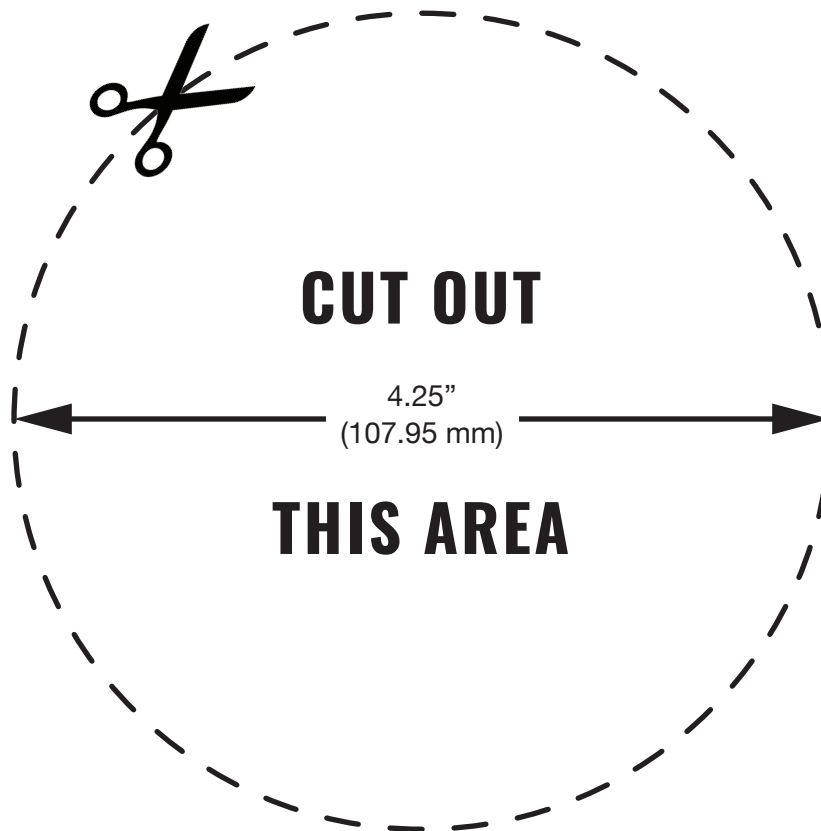
C3-DM Drywall Mounting Ring



C3-PK Pendant Speaker Cover with Wire and Safety Cable

CUT OUT TEMPLATE

NOTE: This is an 8.5" x 11" standard letter size document. This speaker hole template is shown at 100% scale and should be printed out at actual size for mounting accuracy.



BASIC SPEAKER INSTALLATION - 70 VOLT SYSTEMS AND APPLICATIONS

Figure 1.

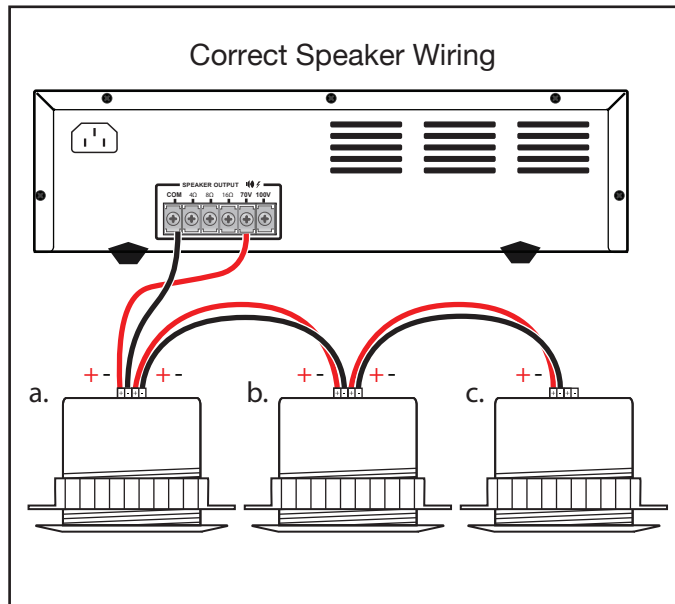
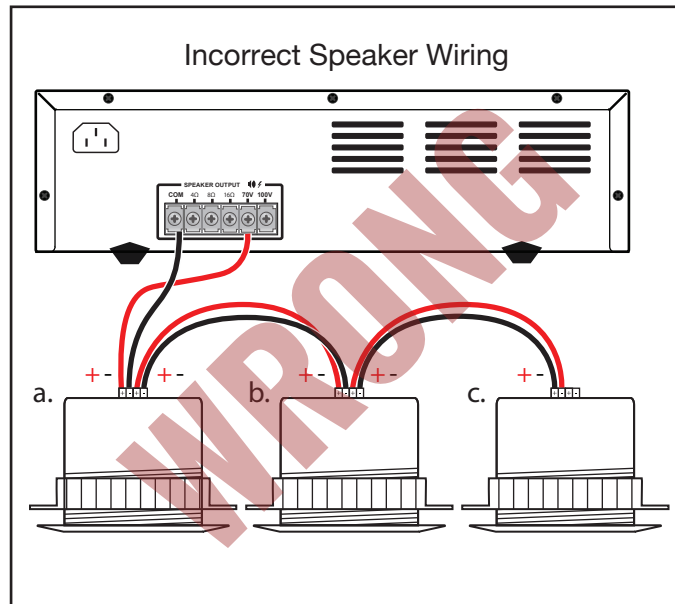


Figure 2.



Be careful not to cross wires when installing your speakers. Wiring should always be negative to negative and positive to positive (Figure 2. shows speaker c. incorrectly wired).

BASIC ATTENUATOR/VOLUME CONTROL INSTALLATION

Figure 3.

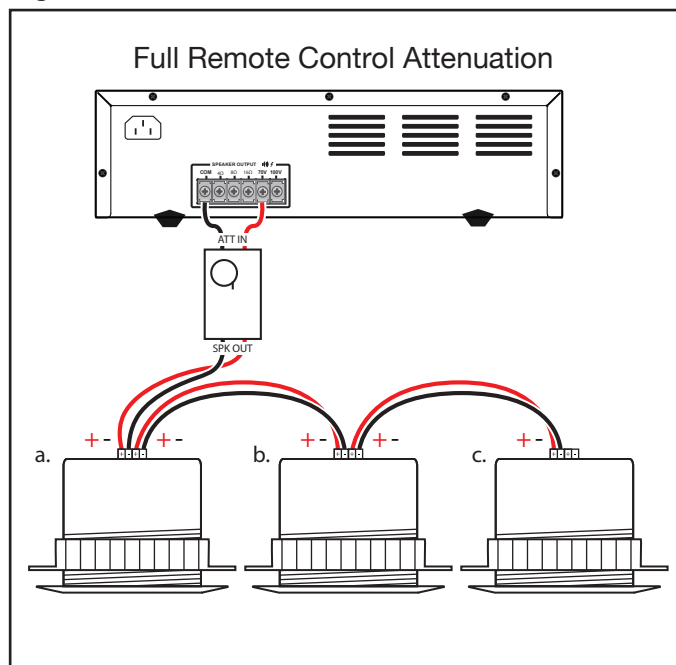
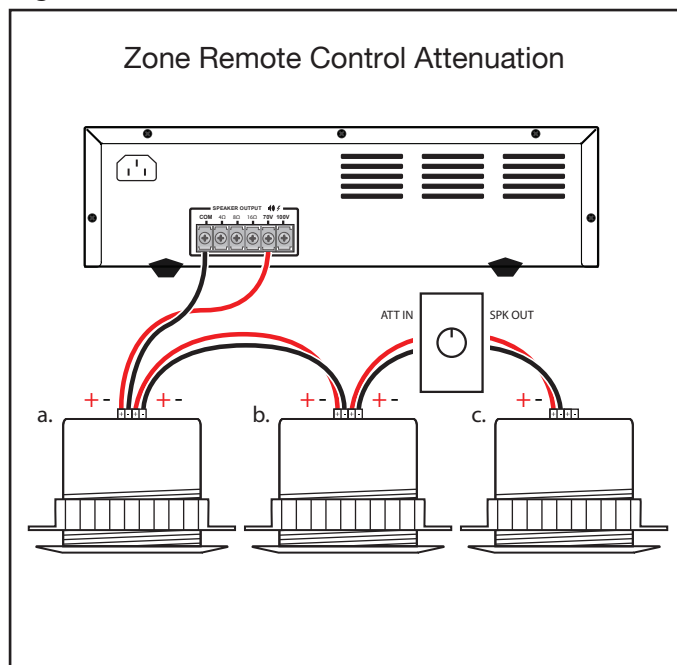


Figure 4.



SERVICE

In the event of a malfunction, ensure the problem is not related to operator error or system devices external to this unit. Once it is certain that the problem is related to the product, contact your warranty provider as described in the warranty section of this manual.

LIMITED WARRANTY

PRO ACOUSTICS, LLC. ("PRO ACOUSTICS") warrants this product to the original purchaser to be free from defects in materials and workmanship (subject to the terms set forth below), for the following periods from the date of purchase.

THIS WARRANTY COVERS THE LISTED PRODUCTS AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR THE FOLLOWING PERIOD

Warranty Terms	
Speakers	2 Years
Amplifiers & Electronics	1 Year
Microphones	1 Year
Accessories	1 Year

PRO ACOUSTICS will repair or replace (at PRO ACOUSTICS's option) this product or any defective parts (excluding electronics and amplifiers) in this product.

Your authorized PRO ACOUSTICS dealer will inspect the product and, if your dealer is not equipped to perform the repair of your PRO ACOUSTICS product, they will replace your product or return it to PRO ACOUSTICS for repair, at their discretion. Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This warranty is invalid if the factory applied serial number has been altered or removed from this product. This warranty is invalid if this product was not purchased from a PRO ACOUSTICS authorized dealer. Cosmetic damage or damage due to accident, acts of God, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product are not covered in this warranty. This warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than PRO ACOUSTICS or a PRO ACOUSTICS dealer which is authorized to do PRO ACOUSTICS warranty work. Any unauthorized repairs will void this warranty.

This warranty does not cover products sold as is.

REPAIRS OR REPLACEMENTS AS PROVIDED UNDER THIS WARRANTY ARE THE EXCLUSIVE REMEDY OF THE CONSUMER/PURCHASER. PRO ACOUSTICS U.S.A. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY LAW, THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PRACTICAL PURPOSE.

This warranty gives you specific legal rights. You may have other rights which vary from state to state.

Specifications may change without notice.

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