



AMPCS60

PREMIUM CEILING SPEAKER INSTALLATION AND OPERATION MANUAL

AUSTRALIA AND NEW ZEALAND

www.australianmonitor.com.au

SYDNEY

(NSW & ACT SALES)

149 Beaconsfield
Street Silverwater
NSW 2128

Private Bag 149
Silverwater NSW 1811

Phone: (02) 9647 1411

Fax: (02) 9648 3698

Email:

nsw@audiotelex.com.au

MELBOURNE

(VIC & TAS SALES)

22/277
Middleborough Road
Box Hill VIC 3128

PO Box 151 Blackburn
South VIC 3130

Phone: (03) 9890 7477

Fax: (03) 9890 7977

Email:

vic@audiotelex.com.au

BRISBANE

(QLD SALES)

42 Commercial Road
Fortitude Valley
QLD 4006

PO Box 871 Fortitude
Valley QLD 4006

Phone: (07) 3852 1312

Fax: (07) 3252 1237

Email:

qld@audiotelex.com.au

ADELAIDE

(SA & NT SALES)

31 Walsh Street
Thebarton
SA 5031

PO Box 157
Hindmarsh SA 5007

Phone: (08) 8352 4444

Fax: (08) 8352 4488

Email:

sa@audiotelex.com.au

PERTH

(WA SALES)

299 Fitzgerald Street
West Perth WA 6005
PO Box 404

North Perth
WA 6906

Phone: (08) 9228 4222

Fax: (08) 9228 4233

Email:

wa@audiotelex.com.au

AUCKLAND

(NZ SALES)

Unit B, 11 Piermark
Drive Albany 1331
New Zealand

PO Box 512
Albany 1331

Phone: (09) 415 9426

Fax: (09) 415 9864

Email:

audiotx@nznet.gen.nz

EUROPE/ASIA/MIDDLE EAST

www.australianmonitor.com.au

INTERNATIONAL SALES

149 Beaconsfield Street Silverwater NSW 2128 Australia

Private Bag 149 Silverwater NSW 1811

Phone: 61 2 9647 1411

Fax: 61 2 9648 3698

Email: international@audiotelex.com.au





IMPORTANT SAFETY INFORMATION



1. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
2. Read all documentation before operating your equipment. Retain all documentation for future reference.
3. Follow all instructions printed on unit chassis for proper operation.
4. Do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
5. Make sure power outlets conform to the power requirements listed on the back of the unit.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
8. Mains voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
9. Have gain controls on amplifiers turned down during power-up to prevent speaker damage if there are high signal levels at the inputs.
10. Power down & disconnect units from mains voltage before making connections.
11. Never hold a power switch in the "ON" position if it won't stay there itself!
12. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, weathersheet, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign matter.
14. Do not remove the cover. Removing the cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
15. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
16. Do not connect the inputs / outputs of amplifiers or consoles to any other voltage source, such as a battery, mains source, or power supply, regardless of whether the amplifier or console is turned on or off.
17. Do not run the output of any amplifier channel back into another channel's input. Do not parallel- or series-connect an amplifier output with any other amplifier output.

Australian Monitor Inc is not responsible for damage to loudspeakers for any reason.
18. Do not ground any red ("hot") terminal. Never connect a "hot" (red) output to ground or to another "hot" (red) output!
19. Non-use periods. The power cord of equipment should be unplugged from the outlet when left unused for a long period of time.
20. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment
 - C. The equipment has been exposed to rain
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
 - E. The equipment has been dropped, or the enclosure damaged.

THIS SAFETY INFORMATION IS OF A GENERAL NATURE AND MAY BE SUPERSEDED BY INSTRUCTIONS CONTAINED WITHIN THIS MANUAL

INTRODUCTION AND CONTENTS

Thank you for choosing the Australian Monitor AMPCS60 premium ceiling speaker.

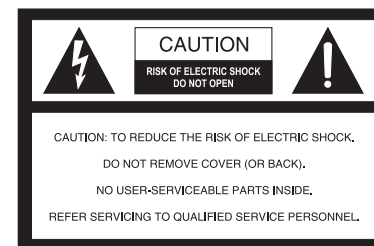
The AMPCS60 has been developed using innovative design and materials to meet the demanding constraints of high quality foreground/background sound reproduction from a ceiling-mounted speaker. Featuring a sealed metal back box, the 6.5" woofer gives superior bass response to a conventional ceiling speaker. The 3/4" titanium tweeter is horn-loaded to maximize high-frequency coverage.

Rated at 60 watts, with 70/100V tapings at 7.5, 15, 30 and 60 watts, the AMPCS60 also features a 16 ohm transformer bypass setting.

Included mounting hardware give ease of installation combined with safety.

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Rev A: 7 Nov 2005



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



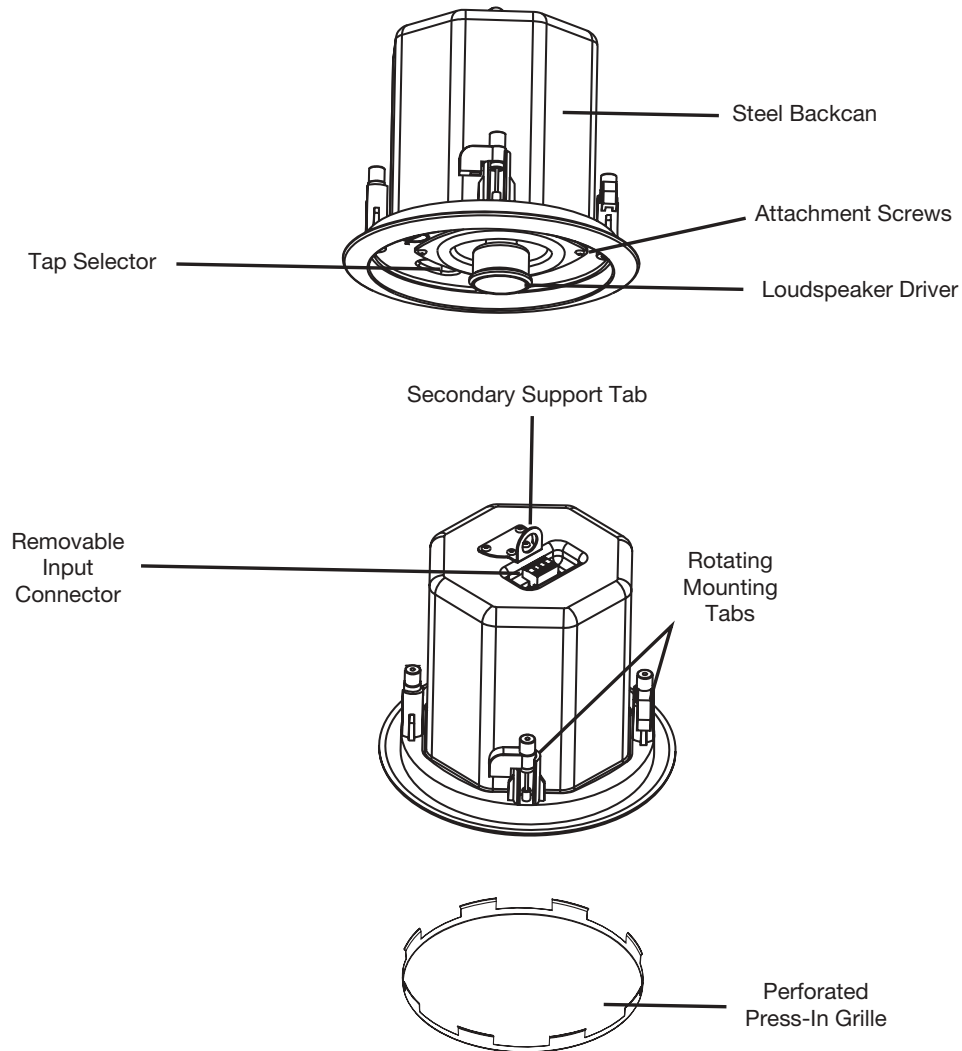
This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarised) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure. To prevent electric shock, match wide blade of plug to wide slot, fully insert.

WARNING !

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

Diagram 1



The AMPCS60 and supplied mounting hardware has been designed for easy installation while maintaining a high standard of safety. The whole installation process can be completed from below the ceiling, if necessary, although working from both sides of a ceiling tile is faster. To ensure a reliable installation, please follow these steps carefully.

1. Preparation

Determine the correct mounting hardware for your particular ceiling construction (see diagram 2).

The C-Bracket spreads the clamping force of the mounting tabs, and strengthens the edge of the hole. The C-Bracket may be used without the tile rails.

The Tile Rails spread the weight of the speaker across the ceiling. If the ceiling tile should fall out or break, the Tile Rails will catch onto the ceiling grid and prevent the speaker from falling.

NOTE: Due to the wide response of the AMPCS60, the low frequency vibrations generated may cause buzzing or rattling in some ceilings. Damping material under the Tile Rails or the edges of the ceiling tiles may be required.

2. Cut hole

Determine the speaker position, taking into account any obstructions in the ceiling space. Note that clearance of 185mm above the lower face of the ceiling is required.

Cutout diameter is 223mm. The C-Bracket can be used as a template.

INSTALLATION

3. Position mounting hardware

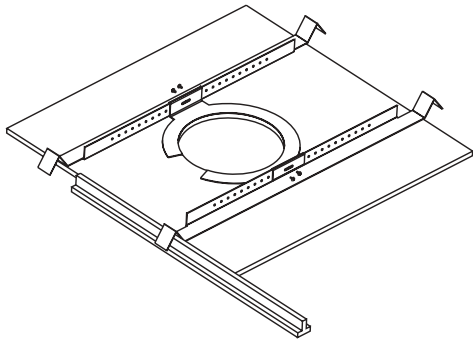
If working from below ceiling, mounting hardware can be disassembled, passed through the hole, and then reassembled.

Tile Rails should be positioned over the ceiling grid, C-Bracket slides engaged, and then locating screws tightened. See diagram 2.



CAUTION: Always use all supplied mounting hardware with ceiling tiles.

Diagram 2



INSTALLATION

4. Wiring

Remove the supplied 4-pole connector from the speaker, and terminate to speaker cable (see diagram 3).

Loop-through terminals are provided (see diagram 4). When this wiring method is used, you should be aware that when a speaker is not plugged in there is no path to subsequent speakers.

An alternative is to wire incoming and outgoing cables in parallel. Pin 2 is +ve and pin 3 is -ve.

Diagram 3

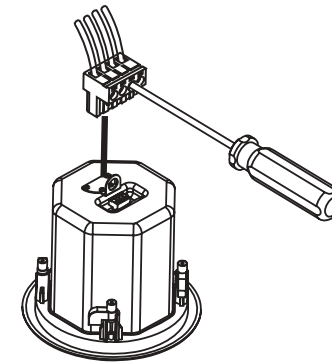
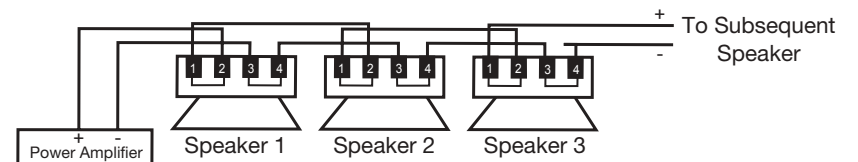


Diagram 4



INSTALLATION

5. Install speaker

Insert pre-wired connector, ensuring correct polarity.
Attach secondary support to the tab, if required by local building regulations.
Lift speaker into hole and tighten the 4 mounting tabs using a screwdriver (see diagram 5,6).
Do not over-tighten.

Diagram 5

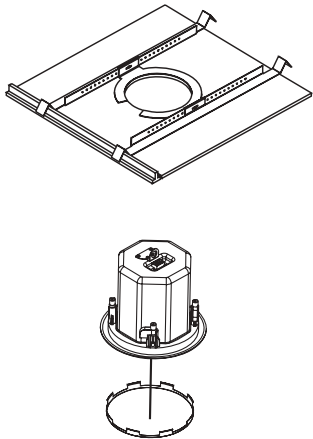
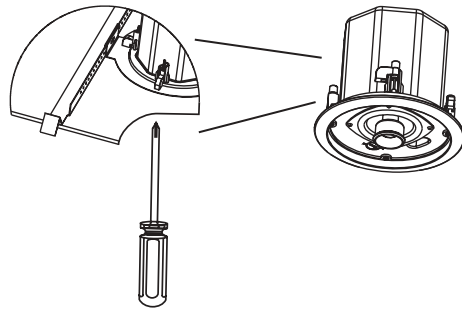


Diagram 6



INSTALLATION

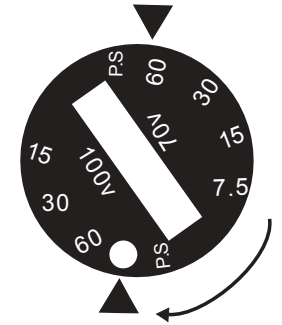
6. Select power

Using a flat-bladed screwdriver, rotate the Tap Selector so the correct power setting is adjacent to the arrow. Note that there are separate 70V and 100V scales, depending on the amplifier being used (see diagram 7).

The transformer may also be bypassed by selecting the PS position.

It may be desirable to leave the grilles off until commissioning is completed if adjustments are likely to be needed.

Diagram 7



CAUTION: To avoid distortion or equipment damage, carefully consider the power ratings of both amplifiers and speakers. Only 2 speakers at 60W will fully load a 120W amplifier, but note that each will be producing more than 106dB direct Sound Pressure Level at the listener when installed in a 3m ceiling! Dropping to the 15W tap allows 8 speakers to be driven by the same amplifier, each producing 100dB SPL.

If 60W @ 70V is selected, but 100V line amplifier is connected, the speaker will draw up to 120W and damage is likely.

7. Fit grille

Carefully insert the perforated grille into the speaker body and press in firmly.

To prevent the grille from vibrating loose, ensure that it is fully pressed in.

SPECIFICATIONS

Model	AMPCS60		
Low-frequency driver	160mm diameter woofer		
High-frequency driver	19mm diameter horn loaded tweeter		
Power tappings/Impedance	W (100V)	W (70V)	ohms
	-	60	84
	60	30	167
	30	15	333
	15	7.5	667
	bypass		16
Frequency response	100Hz - 20kHz		
Driver power	30Wrms	60Wpeak	
Sensitivity	92dB (1W/1m)		
Weight	3.3kg		
Cutout hole diameter	223mm		