2 Way 100V 8" 60W Ceiling Speaker

12305PI User Guide

Introduction

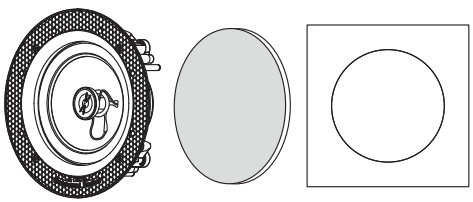
This quick fit 100V/8Ω 2 way ceiling speaker has an 8" driver for the low frequencies, and 0.5" tweeter mounted in the centre for high frequencies.
It is capable of producing up to 60W RMS.

The speaker is designed specifically for use in permanent audio installations with a 100V line mixer or power amplifier, where reliability and premium sound quality are a must. It features multiple 100V Line power tappings enabling you to balance each speaker to the area it's being installed into. For example, you may have an area that needs to be quieter than everywhere else .

The rugged construction and high efficiency design make this ceiling speaker perfect for speech and background music reproduction in restaurants, pubs, cafés, retail stores, offices and other commercial, educational and institutional environments.

- 100V Line tappings options for 10W, 20W & 40W
- Fitted with "dog-ear" mounts for fixing to ceiling tiles
- Spring loaded terminals for easy speaker cable connections
- Flush mounting grille attaches to speaker frame magnets.

Box Contents

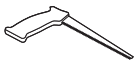


1x Ceiling Speaker | 1x Speaker Grille | 1x Cutout Template

1x User Guide

Preparation

We recommend you have available the equipment shown below for installation



Keyhole Saw/ Jig Saw

Wire Strippers

Phillips Screwdriver

Pencil

Tape Measure

Stud Detector

Safety Goggles

Step Ladder

⚠ Safety Advice and Warnings

Important safety information.
Please read these instructions carefully.

Before drilling or cutting into ceiling or walls it is recommended you use a suitable detector to check for hidden cables and pipes.

When the speakers are installed in ceilings, ensure that the ceiling structure is strong enough to support the weight of the speakers and that the speakers are firmly attached.

Do not disassemble or modify the speaker there are no user serviceable parts.

Do not mount the speakers close to any heat source.

Do not mount the speakers in the ceiling of a shower cubicle or above baths or wash basins.

Follow the connection and operating instructions supplied with the amplifier you are connecting the speakers to.

Switch off the amplifier before connecting speakers.

For safe good quality sound, use double insulated speaker cable designed for 100V Line audio systems and PA applications for connecting speakers to the amplifier. Make sure the cable rating is suitable for your amplifier output.

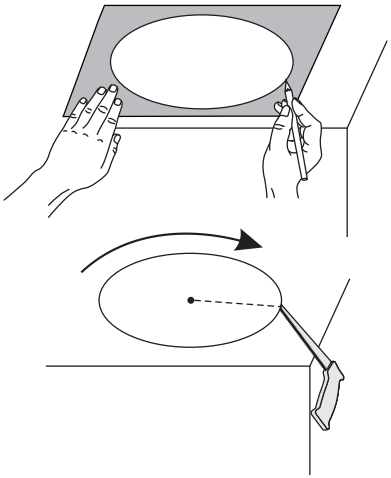
To prevent damage avoid touching the speaker membrane (cone).

Installation

1. Mark and Cut the Speaker Hole

Use a stud finder to locate an area that is free of obstructions or studs.
Position the cutout template where you want to install the speaker and use a pencil to mark your cutting line.*
Drill a pilot hole and cut all of the way around the circular outline with a keyhole or jig saw.

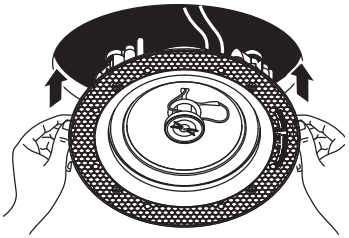
*If you are attaching the speaker to a tile you might find it easier to remove the tile from the ceiling to cut the hole and fit the speaker.



2. Wire the speaker

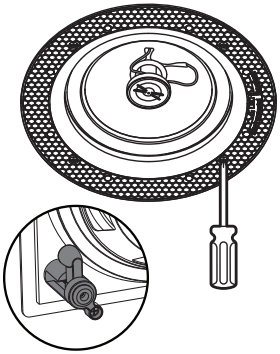
Run a suitable double insulated 2 core cable from your amplifier to the speaker position.

Pull the speaker cable out of the hole which you have cut and connect it to the speaker.
Making sure you connect the Black wire (common) to the Black speaker wire via the spring terminals and the Red wire to the 10W, 20W or 40W terminal depending on the maximum volume output required..



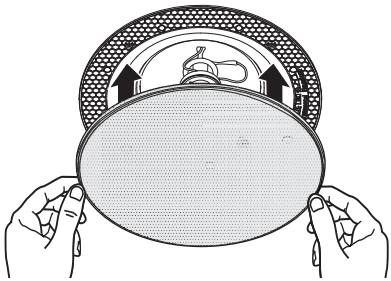
3. Install the Speaker

Position the speaker in the ceiling and tighten the four clamp screws with a Phillips screwdriver making sure they all clamp firmly onto the ceiling to hold the speaker firmly in place.



4. Attach the Grille

The grille is held in place by a ring of 12 circular magnets mounted in the speaker frame. Attach the grille to the rim of the speaker directly. Ensure that the grill is attached to the speaker securely to prevent it from falling.

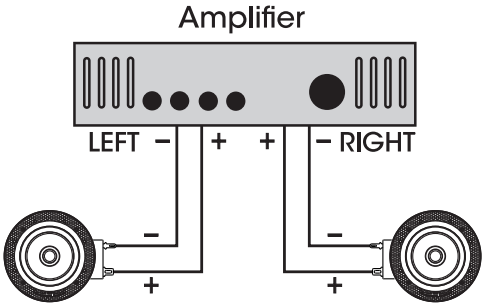


Connections

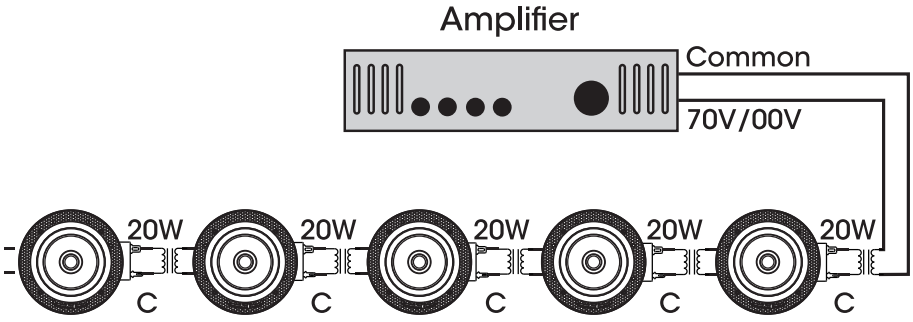
Ensure that the speaker is unplugged from the mains before making any connections.

1. Stereo Connection of L/R Speaker Pair

Connect the input terminals of the speakers to the speaker output terminals of the amplifier. Always check to ensure polarity is correct:
L (left) ➜ L
R (right) ➜ R
"+" ➜ "+"
"-" ➜ "-".



2. Parallel Connection of Multiple Speakers



For distributed line application, the built-in 70/100V multi-tap transformer offers the ability to daisy chain multiple speakers in parallel.

The total number of speakers multiplied by the tap value must not exceed the output power of the amplifier. For example, if you want to daisy chain 5 speakers in total using the 20W taps, you will need an amplifier with at least 5 x 20W= 100W.
A good rule of thumb is to select an amplifier with 20% greater power; in this case,an amplifier that delivers about 120W.

Note:
Anytime you note distortion, reduce the volume to a lower setting. Never allow your amplifier to be driven into "clipping". Otherwise the speakers may be damaged. Damage caused by operating the speakers at distorted volume levels is not covered by any warranty.

Care and Maintenance

- Turn off the power to the speaker if it is not being used for a long period of time.

- Ensure all equipment is turned off prior to cleaning.
  Surfaces need only occasional dusting/cleaning.
  Never use chemicals or solvents as they may damage the surface.
  Always clean using a dry cloth.

- Avoid touching the speaker drivers.

Specifications

Property	Specification
Woofer	8" PP Cone
Tweeter	0.5'' Mylar Dome
RMS Power	60W
Nominal Impedance	8Ω
Sensitivity (1M/1W)	89dB
Frequency Response	55-20,000 Hz
Transformer	C100V/40W-20W-10W
Dimensions	ø 284 x 105mm (ø 11.2"x 4.1 ")
Cutout Size	ø 258mm (ø 10.2")

Technical Support

For further help, advice, information visit www.philex.com/support

Waste electrical and electronic products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice.

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