

WORKSHOP

PROJECT
03

THE BEST WAY TO INSTALL A CEILING SPEAKER

The DIY approach to surround sound

£199 | \$260

ceiling-speakers.co.uk

Lithe Audio Bluetooth Ceiling Speaker

Have all your music playing through one conveniently-placed ceiling speaker, which connects to any Bluetooth-capable smart device around the home.

Nothing screams 'modernism' or 'smart home' at us more than the joys of having a bluetooth speaker neatly fitted into the ceiling of our house. While it's easy enough to have a standard Bluetooth speaker dotted around the house somewhere, the tidy form and design aesthetic of having your music gently wafting out from a ceiling speaker is hard to beat.

Luckily, companies like Lithe now produce a straightforward kit that enables you to fit one in a matter of minutes. The pack comes with all the instructions you need, and even a template to use to cut out the circle in your ceiling to fit the speaker – and there are no messy cables cluttering up the house, either.

The simplest way to connect up the speaker is to power it through the supplied power cable – which runs to a standard power socket. You can connect it up to a lighting circuit, but we strongly recommend that you get a professional electrician in to do that – see the 'Get The Pros In' boxout for more information on that.

If you're after a professional-sounding system then maybe Bluetooth isn't for you though, as, like MP3, it's a lossy way of listening to music – which means that you'll lose some quality from the original recording. If you're looking to just have your music playing around the house and can accept a small loss in quality, though, then this might be music to your ears.

Magnets

To avoid too many screws, the cover for the speaker is attached quickly and easily via a series of small magnets that are built into the rim of the speaker

The cone

The speaker comes with a 6.5-inch (165mm) Kevlar/polypropylene cone for top-quality sound performance across the mid-range frequencies.

Ball-joint tweeter

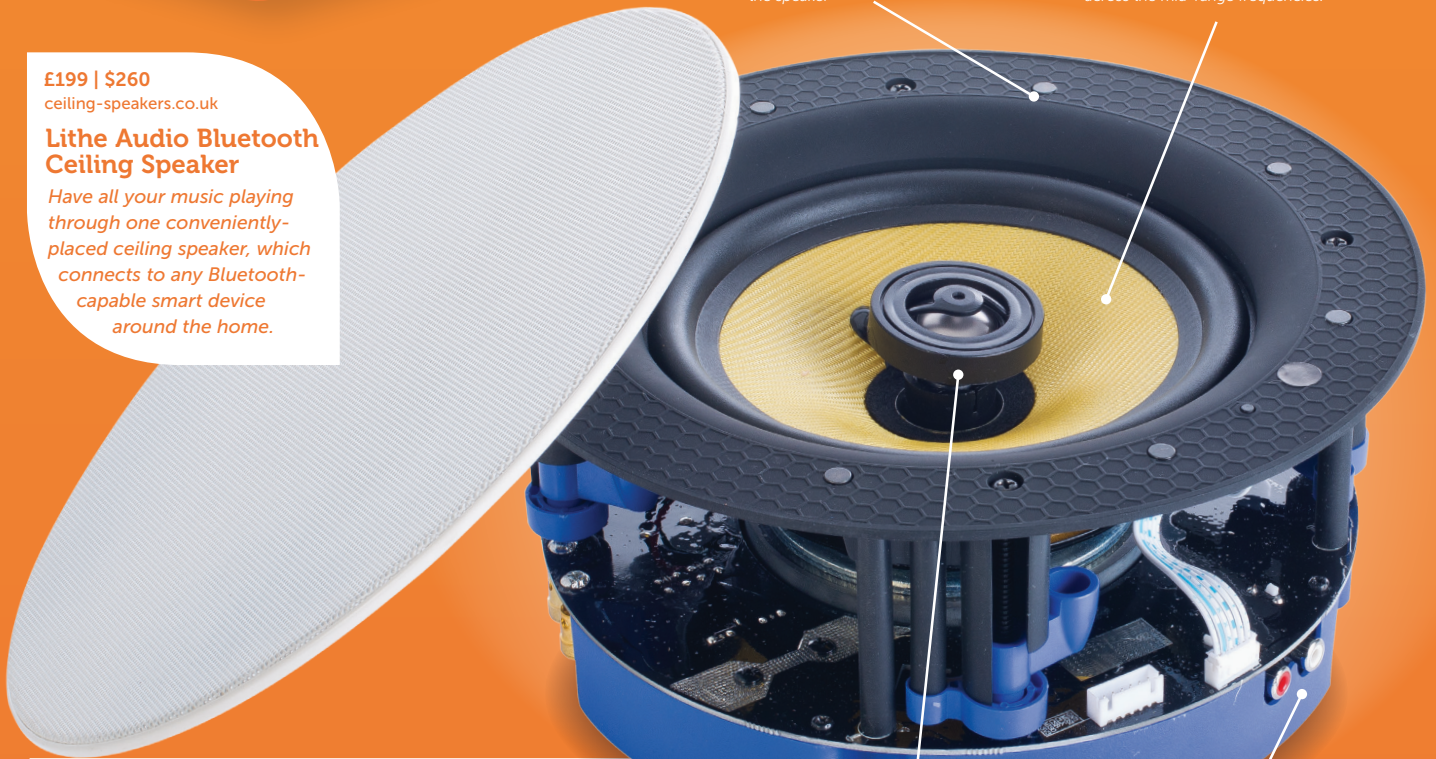
The tweeter, the type of speaker that's designed specifically to produce the highest range frequency of sound, is right here. It's a ball-joint one, too, so it can be fine-tuned for direction

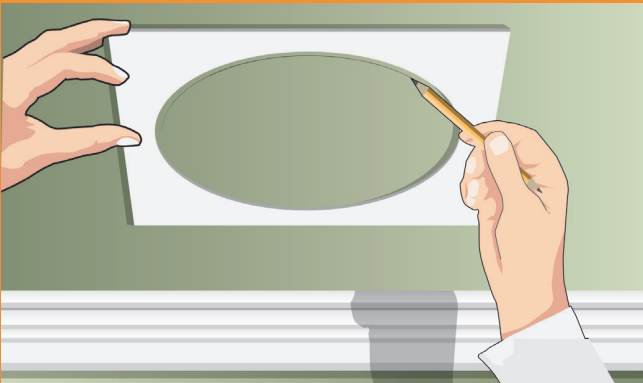
Speaker output

Overall, the design of this ceiling speaker is pleasantly minimalist – meaning you have the least amount of stress to install it. If you want to hardwire your speaker to another sound system, or attach a second speaker, here's where you connect it

GET THE PROS IN

The laws regarding building regulations changed in 2005 with the introduction of the 'Part P' electrical safety rule. Although this was relaxed slightly in 2013, it's still recommended that you get a professional, certified electrician to come in and either do the job for you (if you're planning on wiring the speaker to the mains supply), or check over the work you've done if you'd rather do it yourself. You really can't be too careful with electricity, and it's obviously better to be safe than sorry.





01 Picking the right spot

The easy part of this process is working out where you want your speaker to go. The first thing you should do is use a stud finder to make sure you're not about to cut into a joist, pipe or wire when you start sawing out the hole for the speaker. When you've found a clear and safe spot, you can then use the supplied template (which measures out a circle with 210mm diameter) to mark the area for the speaker with a pencil.



02 Cutting out the speaker hole

Before cutting large chunks out of your ceiling with metallic power tools, it's probably a good idea to switch off the electronic devices in the house. Now, using either a flat wood bit or a holesaw, drill out a pilot hole (with a battery-powered drill) in the middle of the circle you've just drawn on the ceiling. You should now use a small keyhole saw to cut out the circle – a keyhole saw will ensure a neat and accurate finish.



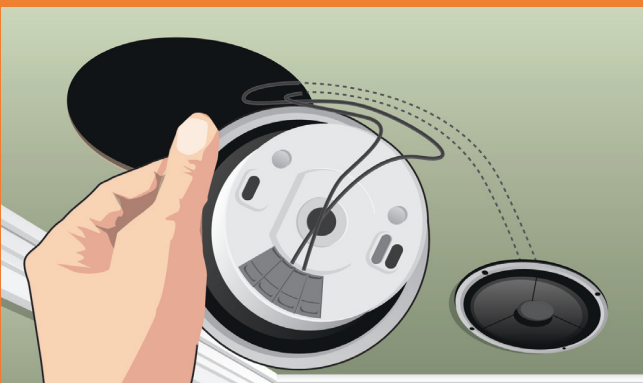
03 Connecting up the power

We're assuming for the sake of safety that you're going to be using the supplied power lead to connect the speaker to the mains supply, so attach the power lead to the speaker and then run it through to the power socket – making sure that the power lead is not overstretched. The other way to connect the speaker to the mains is through a fused spur – connected to the lighting circuit – but we recommend you get an electrician in if you're thinking of connecting it that way.



04 Fitting the speaker into the ceiling

Insert the speaker into the ceiling as gently as you can. If it catches on anything, bring it back down and shave around the edge it's grazing using the keyhole saw. You want to be careful here that you don't shave off too much, but you also want to take off just enough so that the speaker fits snugly. On the rim of the speaker are four dog-leg fixings, so once the speaker is in place, turn each of these to secure it in place. Now, just attach the grill to the speaker and you're done.



05 Adding a second speaker

Of course, you might want to add another passive speaker to the setup, which would obviously give you a much better audio experience in the room. You can easily run a second speaker off the main one, which will also supply the power for it too, so there's no need for a second adapter. Drill the hole in the location where you'd like the second speaker to go, and then join it by connecting it to the two speaker output points with standard speaker cable.



06 Pairing up your device

The LED indicator on the rim of the speaker will flash blue/red to show that it is ready to pair up with your device, so open up your device's Bluetooth settings, search for devices and then click on 'Lithe Audio BT'. Enter the pin '1234' and you should then be connected – at this point the LED on the speaker will change to solid blue to show you're connected. It'll also flash blue to let you know when music is playing.