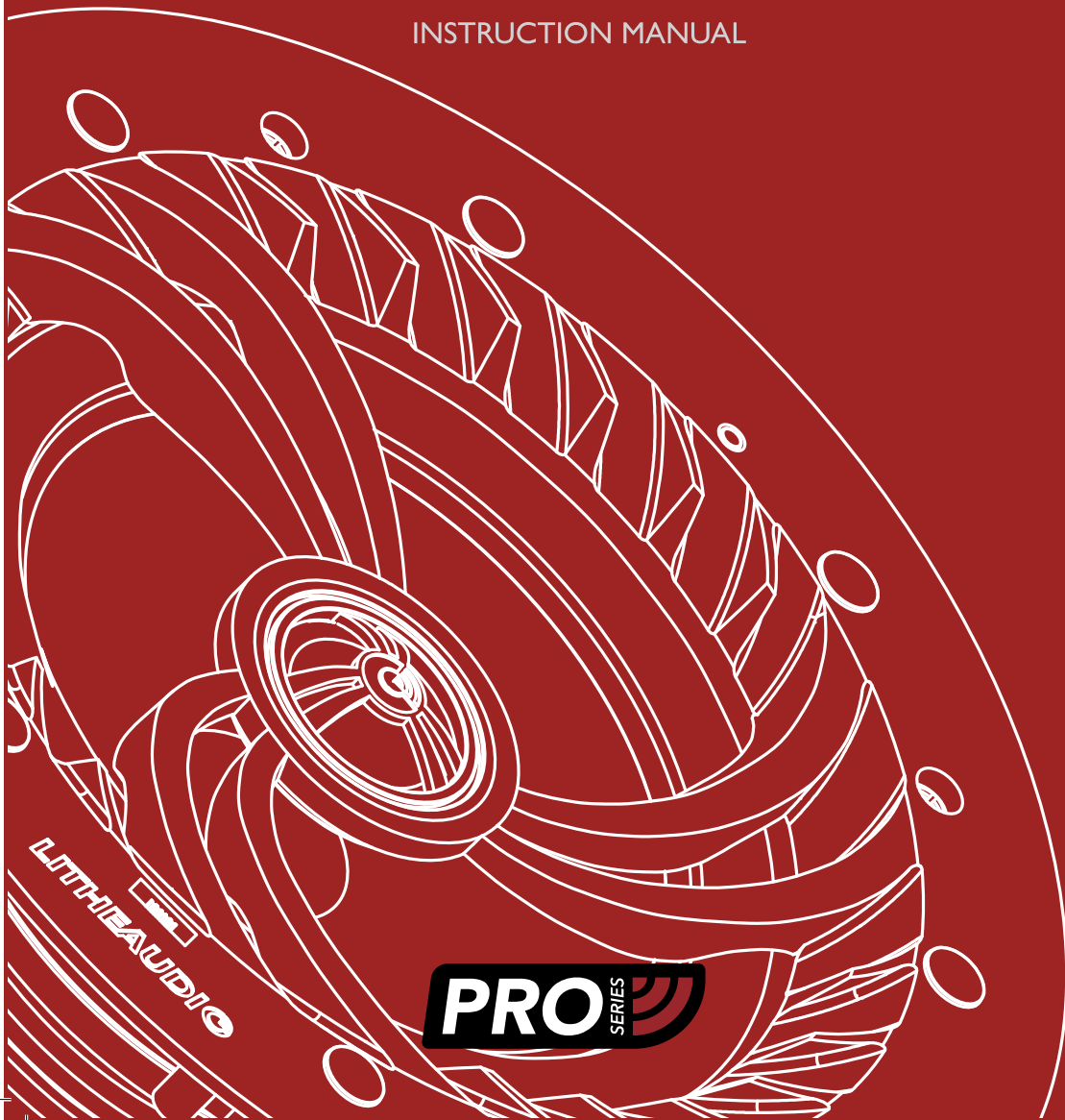


**LITHEAUDIO**

ALL-IN-ONE WI-FI  
CEILING SPEAKER

INSTRUCTION MANUAL





# THANK YOU FOR CHOOSING LITHE AUDIO

Innovative design and advanced engineering are built in to our PRO series of wireless Wi-Fi ceiling mount speakers. Designed for easy installation and high quality sound, within seconds each room is setup and ready. This manual describes the installation of PRO series speakers within conventional stud and sheetrock (Joist and plasterboard) ceilings.

# IMPORTANT SAFETY WARNING

## **BEFORE USE PLEASE READ COMPLETELY AND USE THE PRODUCT IN ACCORDANCE WITH THESE SAFETY INSTRUCTIONS.**

Before commencing any electrical work ensure the supply is switched OFF at the mains. Either by switching off the consumer unit or by removing the appropriate fuse. This product should be installed in accordance with the relevant sections of the building regulations code and in accordance with the latest edition of IEE regulations (BS 7671).

If the unit is to be used as a replacement for an existing product, remove the existing unit from its location and disconnect the wiring. Connect the wires as shown in diagram. Ensure terminals are properly tightened and ensure no bare wires are visible. When fitting the speaker into the ceiling, ensure no wires are trapped.

## **READ THE INSTRUCTIONS CAREFULLY BEFORE STARTING THE INSTALLATION PROCESS AND KEEP THEM SAFE FOR FUTURE REFERENCE.**

- Failure to follow the instructions in this guide voids all warranties on your speakers.
- Warning: Do not use the product in water.
- Warning: Do not install speaker directly above any heat sources such as radiators, or other apparatus that produce heat.
- Warning: To reduce the risk of fire or electric shock, do not expose this speaker to rain or moisture (directly above bath or shower area) or in Bathroom Zone 0 or Zone 1.
- Protect the power cable from being damaged, do not over stretch cable.
- Only use attachments/accessories specified by the manufacturer Lithe Audio.
- Turn off the power to the speaker when unused for long periods of time.
- A Fire and Acoustic speaker hood must be used in accordance with UK building and IEE Regulations with a fire rating of up to 60 minutes, is Parts B, L, C and E compliant.
- Do not open the back cover to the speaker as this protects the PCB as this will invalidate the warranty and could cause electric shock.
- Ensure speaker location is free from obstructions such as electrical conduit, HVAC ducts or Water lines.

# IMPORTANT SAFETY WARNING

## USA REGULATIONS

### **BEFORE USE PLEASE READ COMPLETELY AND USE THE PRODUCT IN ACCORDANCE WITH THESE SAFETY INSTRUCTIONS.**

The Power adaptor (supplied) should not be placed in a dead space such as a wall or ceiling. In accordance with US National Electrical Code. A DC extension cable must be used in conjunction with the power adaptor supplied and placed inside / on top of cabinet or anywhere where you have accessibility. (Each situation is unique to the install, consult your local building codes or contact Authorized Dealer or Installer)

If the unit is to be used as a replacement for an existing product, remove the existing unit from its location and disconnect the wiring. Connect the wires as shown in diagram. Ensure terminals are properly tightened and ensure no bare wires are visible. When fitting the speaker into the ceiling, ensure no wires are trapped.

### **READ THE INSTRUCTIONS CAREFULLY BEFORE STARTING THE INSTALLATION PROCESS AND KEEP THEM SAFE FOR FUTURE REFERENCE.**

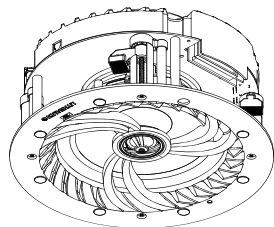
- Failure to follow the instructions in this guide voids all warranties on your speakers.
- Warning: Do not use the product in water.
- Warning: Do not install speaker directly above any heat sources such as radiators, or other apparatus that produce heat.
- Protect the power cable from being damaged, do not over stretch cable.
- Only use attachments/accessories specified by the manufacturer Lithe Audio.
- Turn off the power to the speaker when unused for long periods of time.
- A Fire and Acoustic speaker hood must be used in accordance with UK building and IEE Regulations with a fire rating of up to 60 minutes, is Parts B, L, C and E compliant.
- Do not open the back cover to the speaker as this protects the PCB as this will invalidate the warranty and could cause electric shock.
- Ensure speaker location is free from obstructions such as electrical conduit, HVAC ducts or Water lines.

# BOX CONTENTS

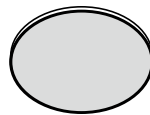
Please ensure you read the entire instruction manual carefully before you commence any work. Carefully unpack the speakers from the packaging. Please check to ensure all the parts shown below are included.

If any parts of the speaker appear damaged, please contact your dealer/reseller immediately or contact [www.Litheaudio.com](http://www.Litheaudio.com) for contact details.

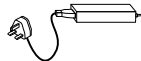
## MODEL LWF2PRO



WI-FI PRO CEILING SPEAKER



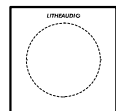
SPEAKER GRILLE



POWER ADAPTOR

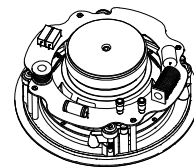


20' DC EXTENSION CABLE (OPTIONAL)



CUTTING GUIDE

## PAIR MODELS ALSO INCLUDE



PASSIVE CEILING SPEAKER



5M SPEAKER CABLE

# PREPARATION EQUIPMENT YOU WILL NEED

Listed below is the hardware equipment needed to install the speaker, with the addition of a ladder to ensure the installation is done safely. A cutting template is included in the box.



PENCIL



STUD FINDER



SCREWDRIVER



CUTTING SAW



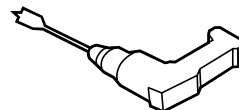
PROTECTIVE EYEWEAR



TAPE



MEASURING TAPE



DRILL



SPEAKER CABLE



WIRE CUTTERS

# KNOW YOUR SPEAKER

The Lite Audio LWF2PRO range of Wi-Fi ceiling wireless speakers have various inputs and outputs:

**SPEAKER OUTPUT** - To connect one additional passive (Slave) speaker (Gold Plated)

**OPTICAL INPUT** - To connect directly from TV Output, CD Player, DVD Player etc..

**POWER INPUT** - To connect (as supplied) transformer

Connection Reset Button

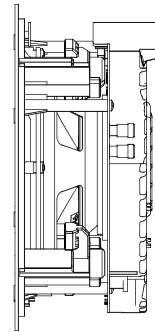
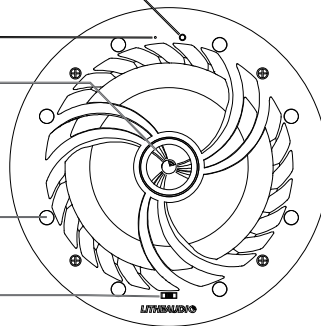
LED indicator

Titanium tweeter

Magnets for Cover (8)

Environmental equalizer  
(+/- 3db)

110mm ceiling  
depth required



210mm  
hole  
cutout  
(template  
supplied)

Power input 24V/2.5A

Built in Amplifier  
& Wi-Fi chipset

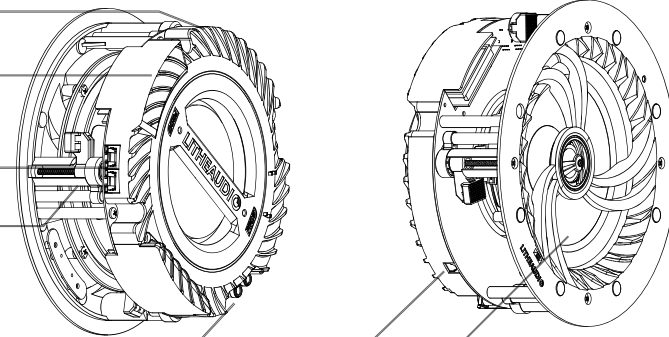
Ethernet in and out

Dog leg easy fixings (4)

Speaker output (Right)  
R+ (Red) R- (Black)

Optical Input

6.5" (165mm) Glass Fibre Woven/Polypropylene cone



In built over voltage, under voltage, over temperature, and short circuit protection, if there is an electrical fault, the power supply to the amplifier will cut off automatically and restart when the speaker has stabilised.

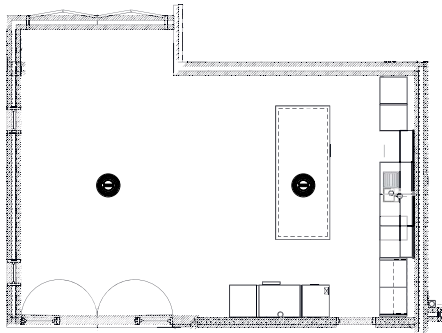
**LITHEAUDIO**

# SPEAKER PLACEMENT

**IMPORTANT: BEFORE COMMENCING ANY WORKS, DETERMINE YOUR PRIMARY LISTENING POSITION. IF YOU ARE UNSURE SEEK HELP FROM AN AV INSTALLER FOR OPTIMUM RESULTS.**

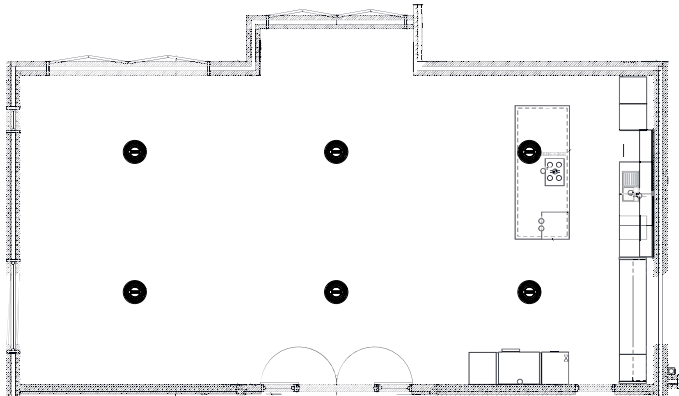
## 2 SPEAKER PLACEMENT

In an ideal scenario, the two speakers should be spaced equally apart from the primary listening position. Where possible, place the speakers approx 3" / 1m from the wall



## 4 SPEAKER PLACEMENT

Ideally, the two speakers to the front and two speakers to the rear should be spaced equally apart from the primary listening position to provide balanced listening experience. Where possible, place the speakers approx 3" / 1m from the wall.

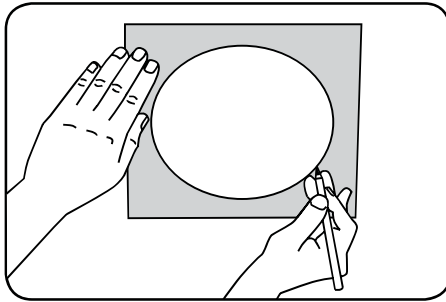


NOTE: For optimal sound when using speaker in vaulted ceilings switch the environmental equaliser switch to +3dB, when using speakers in a tiled environment (Bathroom) switch equaliser to -3dB.

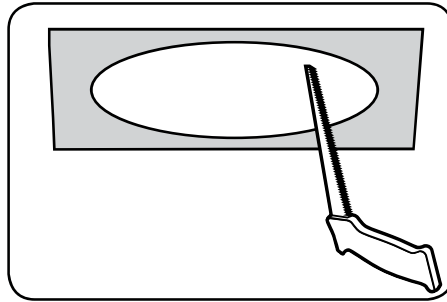
# INSTALLATION

**IMPORTANT: BEFORE COMMENCING ANY ELECTRICAL WORK ENSURE THE SUPPLY IS SWITCHED OFF AT THE MAINS. IF YOU ARE UNSURE HOW TO FIT SEEK HELP FROM A PROFESSIONAL ELECTRICIAN / AV INSTALLER**

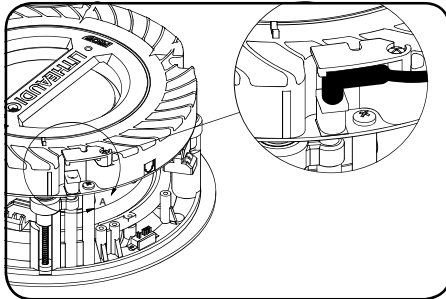
**1.** Mark out the position of the speaker using a tape measure and mark using a pencil with the template supplied. Check using a stud finder to make sure no obstruction is present prior to cutting.



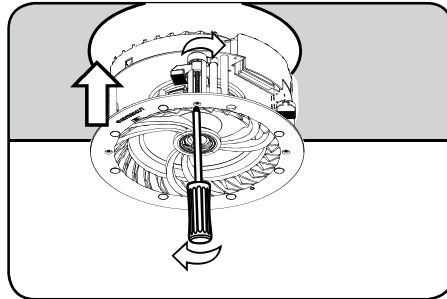
**2.** Drill a pilot hole and cut the speaker hole using a cutting saw. **Take caution when cutting to keep fingers away from cutting blade and wear protective eyewear.**



**3.** Connect the power lead from the transformer (supplied) to a 13A mains plug socket or terminate to a dedicated 3A fused spur. Ensure the power lead is not overstretched.



**4.** Insert speaker into the ceiling then using a screwdriver lock the 4 dog leg fixings to secure the speaker in place, do not over tighten. Attach the magnetic grille to the speaker front.



## **PAINTING THE SPEAKER GRILLE**

Do not paint the speaker grilles whilst attached to the speaker. Lithe Audio recommends spray painting using 5 parts thinning agent to 1 part paint. Spray thinly to ensure speaker cover grille holes are not blocked as this will effect the sound quality of the speakers.

## **INSTALLATIONS IN FIRE-RATED CEILINGS**

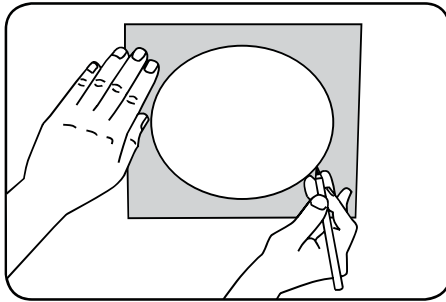
If you plan to mount your speakers in a fire-rated ceiling, you should purchase a fire hood for the speaker. Visit [www.litheaudio.com](http://www.litheaudio.com) for more information and recommended hoods.



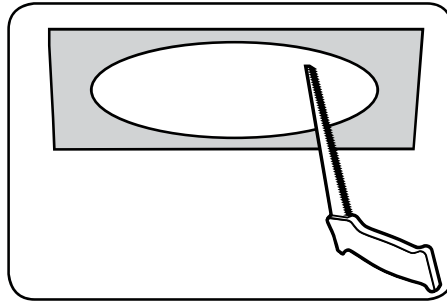
# INSTALLATION USA

**IMPORTANT: BEFORE COMMENCING ANY ELECTRICAL WORK ENSURE THE SUPPLY IS SWITCHED OFF AT THE MAINS. IF YOU ARE UNSURE HOW TO FIT SEEK HELP FROM A PROFESSIONAL ELECTRICIAN / AV INSTALLER**

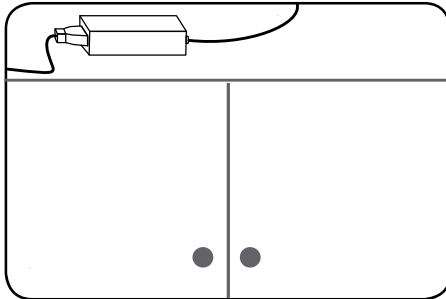
**1.** Mark out the position of the speaker using a tape measure and mark using a pencil with the template supplied. Check using a stud finder to make sure no obstruction is present prior to cutting.



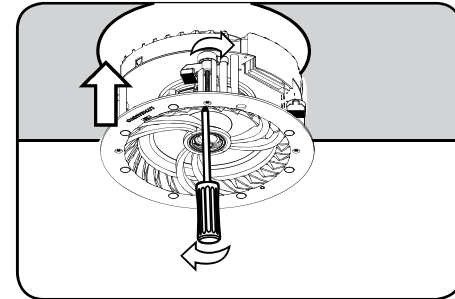
**2.** Drill a pilot hole and cut the speaker hole using a cutting saw. **Take caution when cutting to keep fingers away from cutting blade and wear protective eyewear.**



**3.** To meet the NEC code for this type on install, connect the DC extension cable to power adaptor and place power adaptor inside/ on top of cabinet or anywhere you have easy access.



**4.** Insert speaker into the ceiling then using a screwdriver lock the 4 dog leg fixings to secure the speaker in place, do not over tighten. Attach the magnetic grille to the speaker front.



## **PAINTING THE SPEAKER GRILLE**

Do not paint the speaker grilles whilst attached to the speaker. Lithe Audio recommends spray painting using 5 parts thinning agent to 1 part paint. Spray thinly to ensure speaker cover grille holes are not blocked as this will effect the sound quality of the speakers.

## **INSTALLATIONS IN FIRE-RATED CEILINGS**

If you plan to mount your speakers in a fire-rated ceiling, you should purchase a fire hood for the speaker. Visit [www.litheaudio.com](http://www.litheaudio.com) for more information and recommended hoods.

## YOUR HOME WI-FI NETWORK

To enable the Lithe Audio Wi-Fi ceiling speakers, your device must be on the same network.

- Ensure your network has a high speed internet connection, as the speakers are designed to provide you with free online software/firmware updates.
- High speed DSL / cable modem, or fiber to the home broadband is recommended for best possible playback of music services.
- Lithe Audio communicates over a 2.4GHz & 5GHz Wi-Fi home network supporting 802.11 a, b, g, n, ac wireless technology only.
- For larger homes where Wi-Fi signal is not stable, we suggest adding access points/mesh network to strengthen the network or updating your router to a higher specification model to suit the demand OR connect via hard wired ethernet connection.
- For connections to computer or NAS drive for playing personal music library, we recommend for best performance connecting via Ethernet cable.
- 

## LITHE AUDIO APP

- To enhance your listening experience download Lithe Audio app via the app store on your device follow the setup procedures within this instruction manual.
- The app will allow you to setup singular rooms, groups of speakers or play in Party Mode.
- You can connect up to 30 speakers simultaneously and control them all from the app.

## STATUS INDICATOR LIGHT

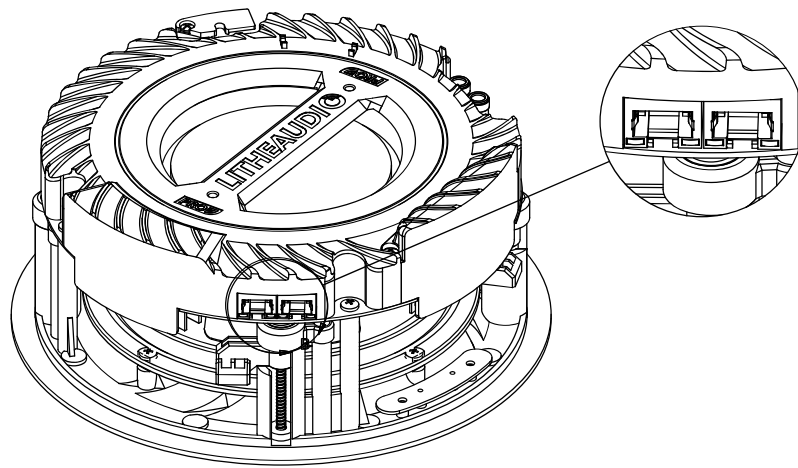
Located on the front face of the speaker, the LED Indicates the status of your speaker:

- **Red solid:** Speaker booting up
- **Red quick flash (1s 4 times):** Speaker under restart operation
- **Red slow flash (3s 1 time):** Speaker under standby mode, waiting for user operation
- **Green solid:** Speaker is active and connected to Wi-Fi
- **Green slow flash(1s 1 time):** Speaker trying to connect to the preconfigured Wi-Fi
- **Solid purple:** Speaker under WiSA mode
- **Green quick flash(1s 4 times):** Speaker in WAC/SAC mode, user to configure Wi-Fi

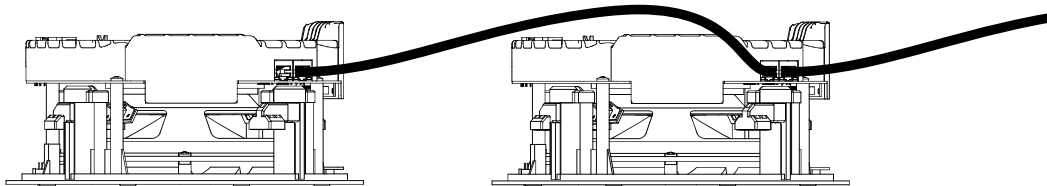
# ETHERNET CONNECTION

To connect to speaker via ethernet cable use either of the RJ45 ports

The WiFi PRO gives you the ability to daisy chain ethernet connections, reducing cable runs, saving time and money. Each speaker shall have its own IP address.



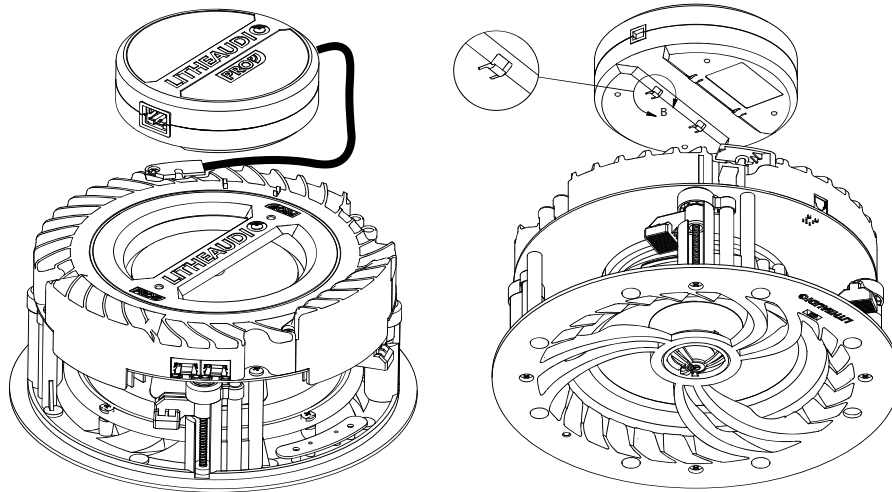
**NOTE: IF USING POE IN ADDITION TO ETHERNET CONNECTION THEY ARE SEPERATE INPUTS ONE FOR DATA AND ONE FOR POWER.**



## POE SETUP (OPTIONAL EXTRA)

To use PoE Bolt on device with the WiFi PRO speaker you shall need an PoE injector to deliver minimum of 60W power via IEEE 802.3af/at/bt standard.

1. To power the WiFi PRO speaker via PoE power, you must remove the DC connector which is powered by the mains from the speaker.
2. Connect the PoE injector via ethernet cable into the RJ45 port on the PoE bolt on (Ensure a click noise)



3. Connect the DC cable connector from the PoE bolt on into the speaker.
4. Line up the PoE bolt on with the rear of the PRO speaker and clip in place.
5. If required clip the cable into the cable guides to ensure no snags occur for a tidy install
6. You are all set. Turn the injector on and wait for a few seconds for the power to boot up.