ACOUSTICS

E300A

USER GUIDE

For model E300A

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Important Safety Information and Warnings

1 - Notices

1.1 - FCC Statement (for US Customers)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

1.2 - FCC Radiation Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

CAUTION!: Any Changes or modifications not expressly approved by Q Acoustics could void the user's authority to operate the equipment.

1.3 - Industry Canada Statement (for Canadian Customers)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

1.4 - Bluetooth

This unit contains a Class 2 Bluetooth transmitter working at 2.4GHz.

2 - Safety Information and Warnings

2.1 - Moisture

- To reduce the risk of fire or electric shock, DO NOT expose this apparatus to: rain, moisture, dripping or splashing.
- DO NOT use this apparatus near water.

2.2 - Remote Control Batteries

The remote control supplied with this unit contains a battery. To prevent battery leakage which may result in bodily injury, property damage, or damage to the unit:

- Install the battery correctly, + and - as marked on the unit.
- Remove the battery when the unit is not used for a long time.
- DO NOT expose the battery or remote control to excessive heat, including sunshine.
- **CAUTION!:** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- WARNING - DO NOT INGEST BATTERY - CHEMICAL BURN HAZARD.
- If the battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

2.3 - Disposal of Batteries

The battery supplied contains perchlorate material and in many areas batteries may not be disposed of with your household waste. Please ensure you dispose of batteries according to local regulations.

The battery supplied DOES NOT contain the heavy metals mercury or cadmium.

2.4 - Servicing

Servicing is required when the unit or mains cord has been damaged in any way, liquid has been spilled or objects have fallen into the apparatus, the device has been exposed to rain or moisture, it does not operate normally, or has been dropped.

Refer all servicing to qualified service personnel.

3.0 - Symbols used on this product

High Voltage Hazard Symbol

This symbol indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please DO NOT REMOVE the product covering.

Hazard Warning Symbol

The 'exclamation mark' calls attention to features for which you should read this manual closely to prevent operation and maintenance problems.
WARNING: To reduce the risk of fire or electric shock, this apparatus should not exposed to rain or moisture and object filled with liquids, such as vases, should not be placed on this apparatus.
CAUTION: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Waste Electrical and Electronic Equipment Symbol

This symbol indicates that when the unit is to be discarded, it MUST BE SEPARATED from other household-type waste and sent to separate collection facilities for recovery and recycling of electrical and electronic equipment.

Please make sure you are familiar with your local rules on the separate collection of electrical and electronic products.

Introduction

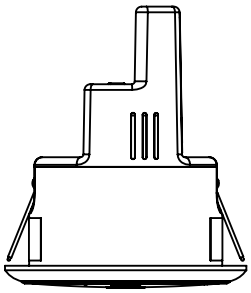
Thank you for purchasing this Q Acoustics E300A Alexa Ceiling Amplifier.

This manual is intended to take you through setup and installation and will help provide optimum performance from the product.

Please read the instructions, important safety information and warnings carefully before installation and use, to ensure the safe and satisfactory operation of this product.

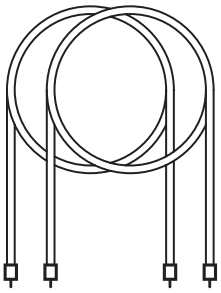
The Q Acoustics E300A amplifier combines exceptional stereo sound performance with convenient voice control and unique installer friendly connectivity.

Package Contents

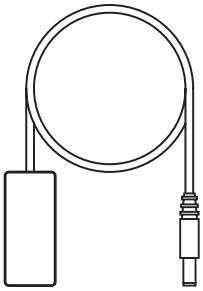


1 x E300A Unit

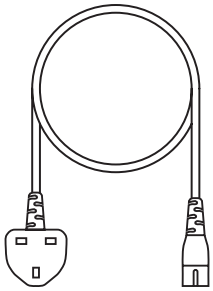
1 x Remote Control



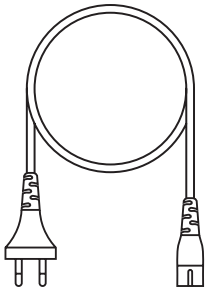
2 x 7m Speaker Cable



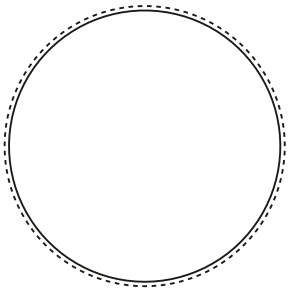
1 x Power Supply



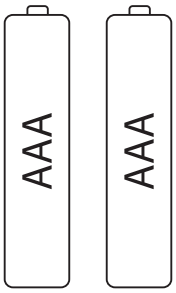
1 x UK Power Cable*



1 x EU Power Cable*



1 x Cutout Template



2 x AAA Batteries

1 x User Guide

** Power Cable(s) supplied may vary depending on market version.*

Feature Summary

Wired Connectivity:

Analogue audio input – 3.5mm stereo jack allow a connection to an external analogue audio source such as a CD player.

Optical digital input - Mini TOSLINK allows connection to an external digital audio source such as a TV.

Speaker output – Stereo IMO sockets, allowing connection to passive speakers.

Local Input Module (LIM) – RJ45 socket used exclusively with the LIM allowing remote audio connections via a CAT5/6 data cable.

Ethernet – RJ45 socket used to connect a wired internet connection from a broadband router.

DC Power – Plug the output of the supplied power supply here to power the unit.

Wireless Connectivity:

Bluetooth® – An international wireless connection used for streaming audio from all compatible devices.

WIFI – A wireless connection for internet

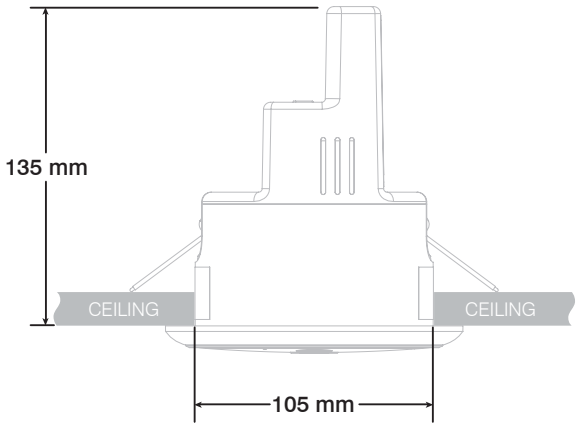
Ceiling Positioning and First Fix Installation

The E300A is designed to be fitted into the ceiling using:

105mm Diameter Cutout

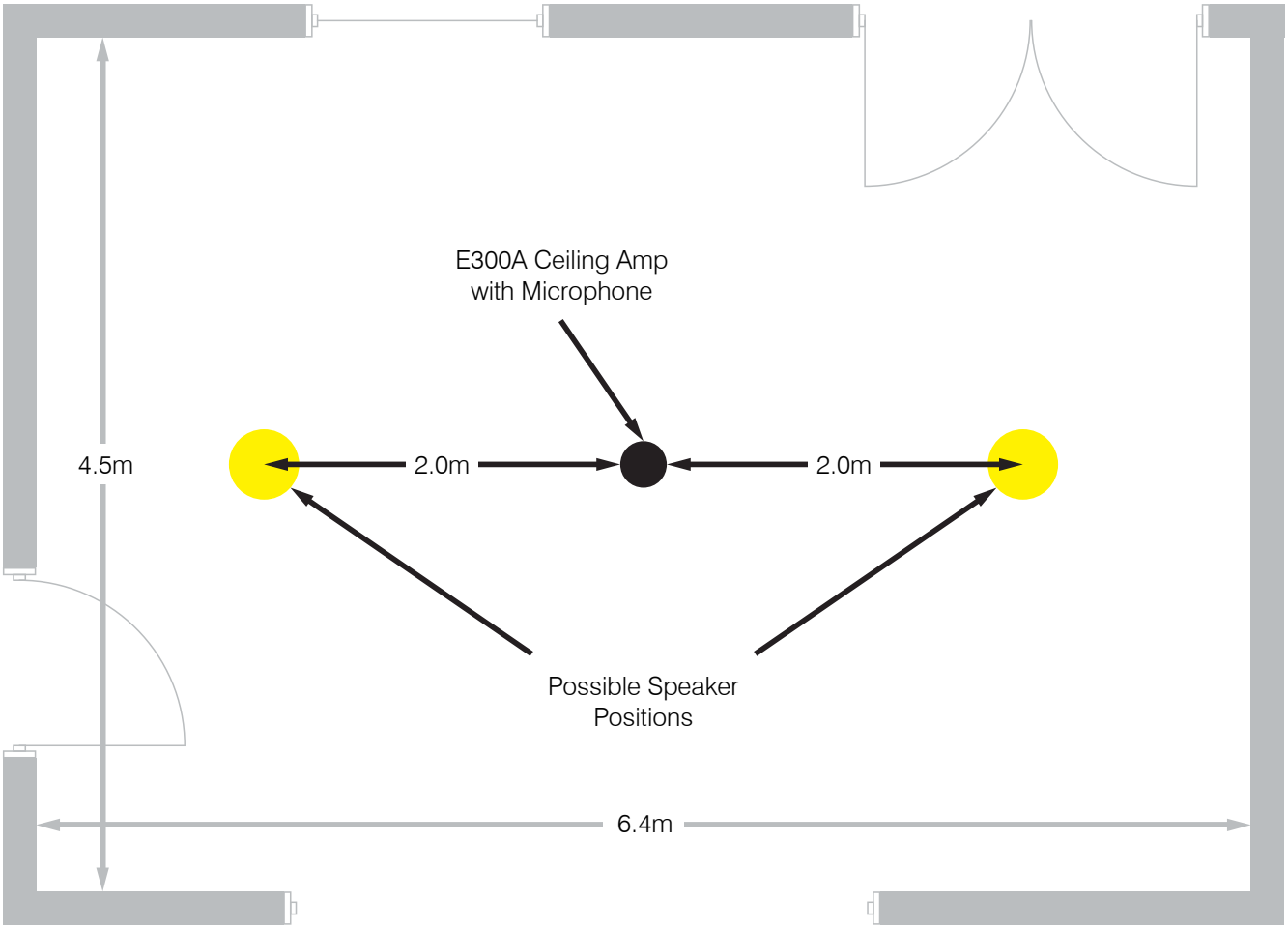
135mm Depth Cutout

It is recommended that the unit is positioned centrally in the room in order to give equal voice control performance throughout. Typical rooms will only require one pair of speakers with a distance of 1.0 – 2.5m from each speaker to the E300A. Larger open plan rooms may require 2 pairs of speakers with up to 3.0m from each speaker to the E300A.

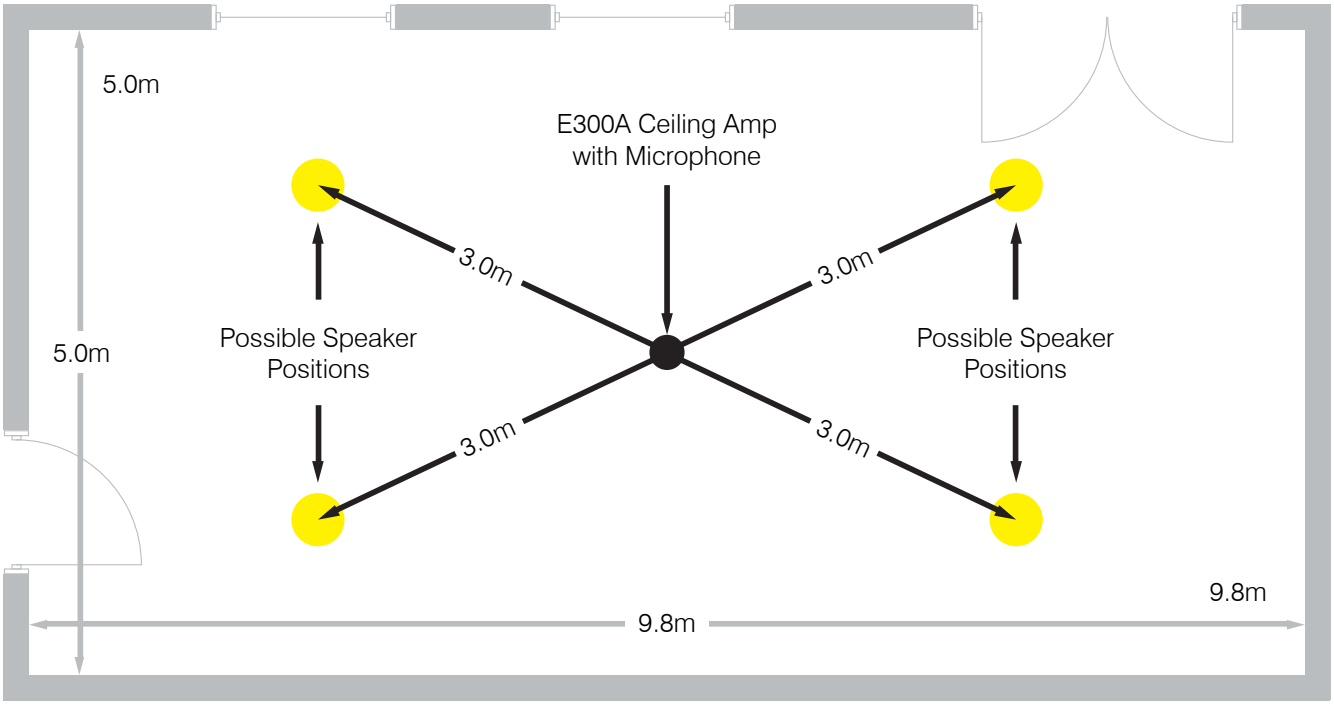


E300 mounted in a ceiling will have a typical height of 1.8m or greater

Single Room with Two Speakers (e.g.):



Open Plan Room with Four Speakers (e.g.):

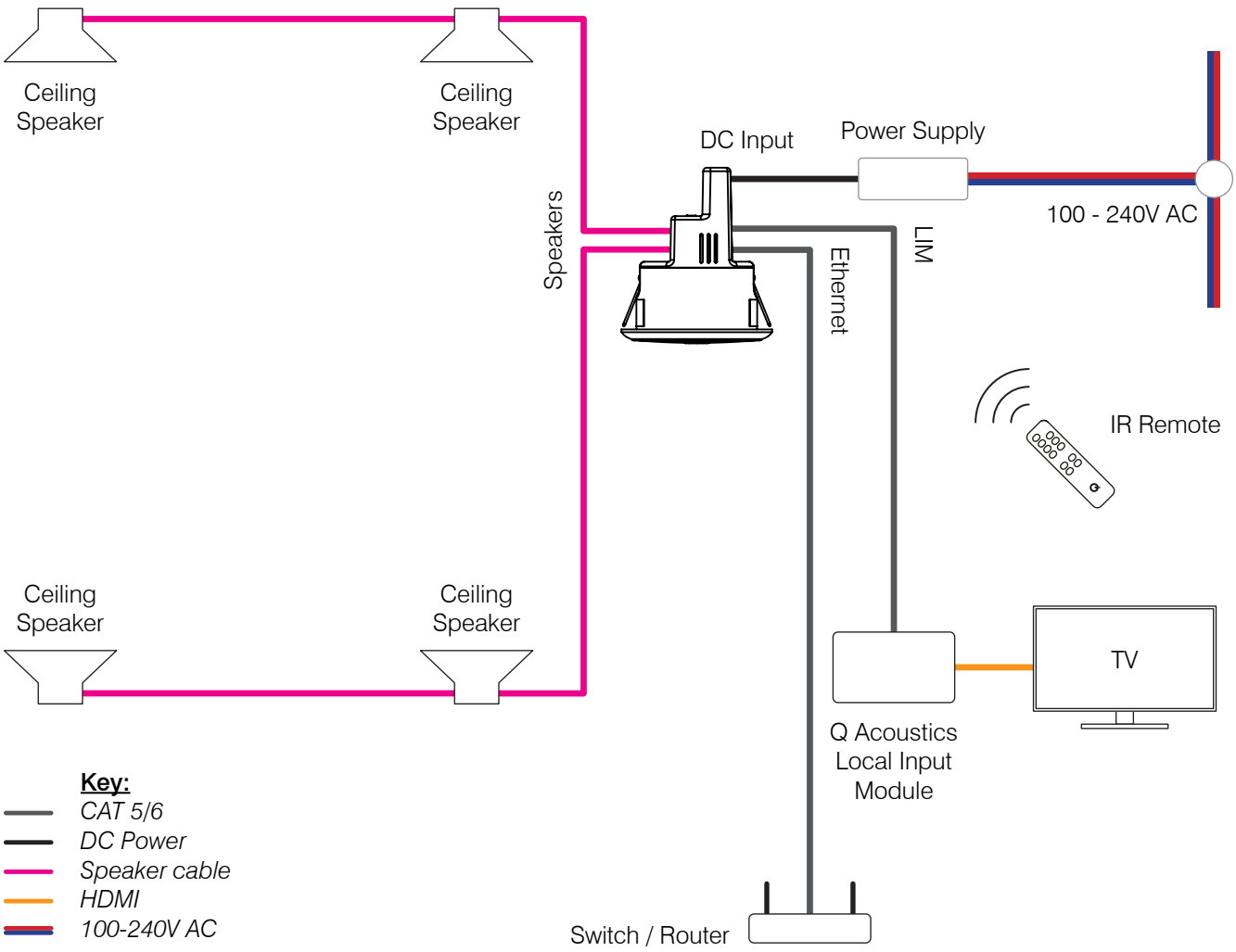


Ensure the cutout AVOIDS CEILING JOISTS.

<u>DO NOT install directly above a shower or bath.</u>

A permanent live and neutral supply is required to connect the power supply.

1. Make a 105mm diameter hole in the ceiling for the main E300A Amplifier.
2. Run speaker cable (16/2 recommended) from the E300A position to the left and right speaker positions.
3. Run an optional CAT 5/6 data cable from the E300A position to a wired internet router or switch.
4. Run an optional CAT 5/6 data cable from the E300A position to a TV point (RJ45 socket recommended) for a LIM, to connect AUX or TV sound if required.
5. Run an optional Analogue or Optical cable to AUX input (if not using LIM)
6. Use an electrician to wire in the E300A power supply to a live supply or plug into a mains socket if available.

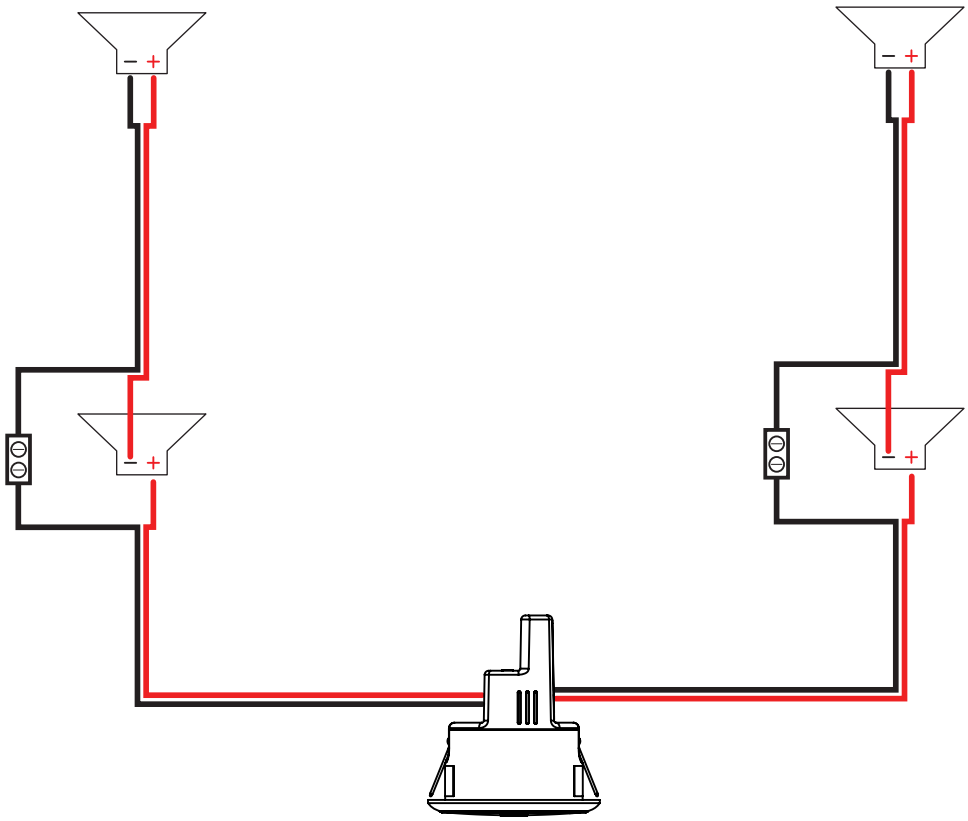


The diagram above shows typical wiring layout using two pairs of ceiling speakers, wired internet and optional Local Input Module (LIM) for TV sound.

Wiring Two Pairs of Speakers

For larger open plan areas, two pairs of Speakers can be used to achieve an even distribution of sound. A Speaker wire (purchased separately) should be fitted between the First Speaker and the Second, for both Left and Right as shown in the diagram.

The Speakers **MUST** be Connected in **SERIES** - where the Negative (BLACK) connector of the First Speaker is connected to the Positive (RED) connector of the Second. The Negative (BLACK) connector of the Second Speaker is then connected to the Negative (BLACK) cable to the E300A unit using a connector block, as shown in the diagram. This series method of connecting two speakers will ensure a high quality and reliable sound performance.



Connecting the System and Powering On

Once you have first fixed the cables, and made the correct ceiling cut-outs, the system can be plugged in and switched on.

1. Terminate the speaker cables to the speakers, and then the green speaker connectors supplied with the E300A.
2. (Optional) Terminate CAT 5/6 data cables for internet or LIM with RJ45 plugs using TIA-568B wiring standard, shown below. Use a continuity test to ensure all conductors are connected correctly.
3. (Optional) If not using LIM, plug in AUX cable (3.5mm stereo jack for Analogue, mini TOSLINK for Optical)
4. Plug in power supply and power on.
5. Test the system (see section XXX).
6. Fit the E300A into the ceiling.

Setting up E300A for Internet and Amazon Alexa

Once speakers are connected and the unit is powered on you can proceed to configure E300A to connect to WIFI (if not using wired internet), set a zone name and also connect to your Amazon Alexa account to enable voice-controlled services.

Configure WIFI:

1. Download the E300A App from Bluetooth or *(E300A's companion app...TBC)*.
2. Ensure your device running the app is connected to your WIFI.
3. Open up the App, then select 'Setup New Speaker'.
4. You will be prompted to select 'WIFI Settings' and join the WIFI created by E300A.
5. Once connected follow the instructions to allow E300A to join your WIFI and give it a friendly zone name.

Add Amazon Alexa account:

1. Once connected to WIFI or Ethernet, open the App.
2. Select 'Settings'.
3. Select Amazon account, enter your name and password.

Playing Audio via Voice Control

E300A is a fully activated Alexa voice control device and will react to your voice in the same way as other Alexa voice-controlled devices. When you have made your voice selection, the LED ring will illuminate WHITE. Here are some example commands:

1. *"Alexa, play BBC Radio 1"* - System will play BBC Radio 1
2. *"Alexa, volume 6"* - System will adjust to volume = 6/10
3. *"Alexa, stop"* - System will stop playing radio
4. *"Alexa, what is the time?"* - Alexa will state the time

Using the Alexa wake up work will always override any audio currently playing including AUX or LIM. If you simply ask Alexa a question then the previous input will continue, if you request new music via Alexa then this will override the previous selection or input.

Playing Audio via AirPlay

E300A is fully compatible with Apple devices, simply:

iOS & macOS Device AirPlay Connection Guide:

1. Unlock your iOS device
2. Open your 'Control Center' page
3. Select this symbol:
4. Click/Touch the 'E300A' or its customised name to establish a connection

You can use the remote control to alter the volume, or simply ask Alexa to set the volume:

"Alexa, volume 3" - Alexa will set the volume = 3/10

You can pair multiple devices by repeating the guide shown above and selecting another AirPlay device this process.

A paired device can connect and play audio without the need to select any Input Source, simply select E300A in your iOS/macOS device list, connect, and play audio.

Playing Audio via Multi-Room Media

Establishing MRM with Alexa Devices:

Playing Music/Media on Different Devices Simultaneously:

1. Unlock your iOS/Android
2. Download ‘Amazon Alexa’ App
3. Sign into application
4. Select ‘Devices’ Tab
5. Create two or more ‘Groups’ by Names Given by Amazon
6. Choose Alexa & other Compatible Devices with Amazon for each ‘Group’
7. Say “Alexa” to ‘Awaken’ the device
8. Say and specify what Media you wish to play and in which ‘Group’ should produce the audio (e.g. “Play Black Sabbath in ‘Kitchen’”)
9. Repeat Step 7
10. Repeat Step 8 but specify a different ‘Group’ (e.g. “Play Audible in ‘Bedroom’”)
11. Repeat step for Tertiary output

Playing Audio via Spotify Connect

Once E300A is connected to the internet you can use the Spotify App to select it from the device list, it will be listed as a ‘Spotify Connect’ speaker named E300 or a name you have given. Simply select this and then browse and play music in the normal way, using the Spotify App to control the volume.

If you register your Spotify account with Alexa, then you can also use voice commands to play music. Once you make Spotify your default music player, simply ask Alexa to play your choice.

Playing Audio via Bluetooth

You must first ‘pair’ your Bluetooth device to E300A using the following steps:

1. Press the Bluetooth input on the Remote Control, E300A will switch to the Bluetooth input and the LED ring will flash BLUE.
2. You can now pair your Bluetooth device, go to Bluetooth settings and select E300A, or your set friendly name to pair and connect the device, you must do this within 60s.
3. You can now play audio from your device and control the volume.

You can pair multiple devices using this process, remember once the Bluetooth input is selected you have 60s to pair.

A paired device can connect and play audio without the need to select the Bluetooth Input, simply select E300A in your Bluetooth device list, connect, and play audio.

Playing Audio via AUX Analogue

Use the 3.5mm stereo jack socket to connect your Analogue audio source directly to E300A . Press the AUX input button on the Remote Control to select this input, the LED ring will illuminate PINK.

You can use the remote control to alter the volume, or simply ask Alexa to set the volume:

"Alexa, volume 3" - Alexa will set the volume = 3/10

Playing Audio via AUX Optical

Use the mini TOSLINK socket to connect your Optical digital audio source directly to E300A . Press the AUX input button on the Remote Control to select this input the LED ring will illuminate PINK.

You can use the remote control to alter the volume, or simply ask Alexa to set the volume:

"Alexa, volume 3" - Alexa will set the volume = 3/10

Connecting and Using a Local Input Module (LIM)

The Local Input Module (LIM) is a convenient way to connect a remote source such as a TV to the E300A via a CAT 5/6 data cable. Once the cable has been terminated and verified, simply plug the LIM into the LIM RJ45 socket on the E300A. The LIM will receive power and indicate this on the RJ45 socket LED's.

The LIM has Optical and Analogue inputs, Optical is recommended for TV sound, use a TOSLINK Optical cable to connect.

Set the TV audio output to PCM stereo, as the LIM does not contain a Dolby Digital decoder.

The LIM can switch the E300A to its input automatically when an Optical signal becomes present (Optical light switches on). Alternatively, you can select the input using the supplied Remote Control. Press the AUX input button to select this input, the LED ring will illuminate green.

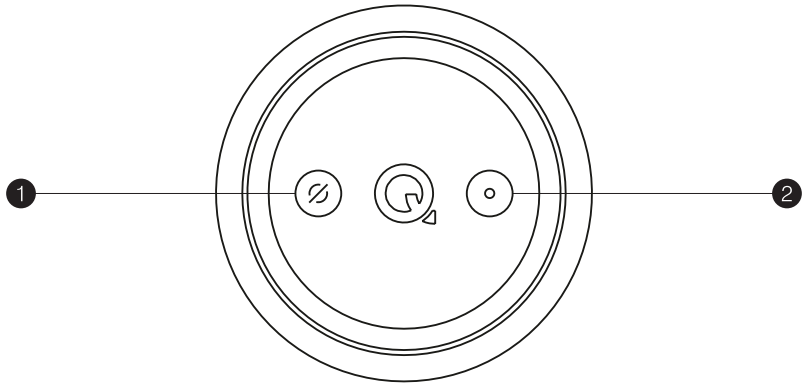
You can use the remote control to alter the volume, or simply ask Alexa to set the volume:

"Alexa, volume 3" - Alexa will set the volume = 3/10

The LIM is supplied with a plug in Infra-Red receiver, which can be attached on or under the TV allowing Remote Control of volume, pointing a remote control at the TV rather than the ceiling. The supplied Remote Control can be used, or any programmable remote control using the IR codes set out below.

Function	IR Code RC5	
	System	Command
Standby	16	012
Mute	16	013
Volume Up	16	016
Volume Down	16	017
BT Input	16	002
AUX / TV	16	005
Play / Pause	27	053
Stop	27	054
Skip Forwards	27	052
Skip Back	27	050
LIM Analogue	27	067
LIM Digital	27	068
LIM Auto	27	069

E300A Buttons



1. MIC MUTE – Mutes/Unmutes the microphone.

2. FUNCTION – .

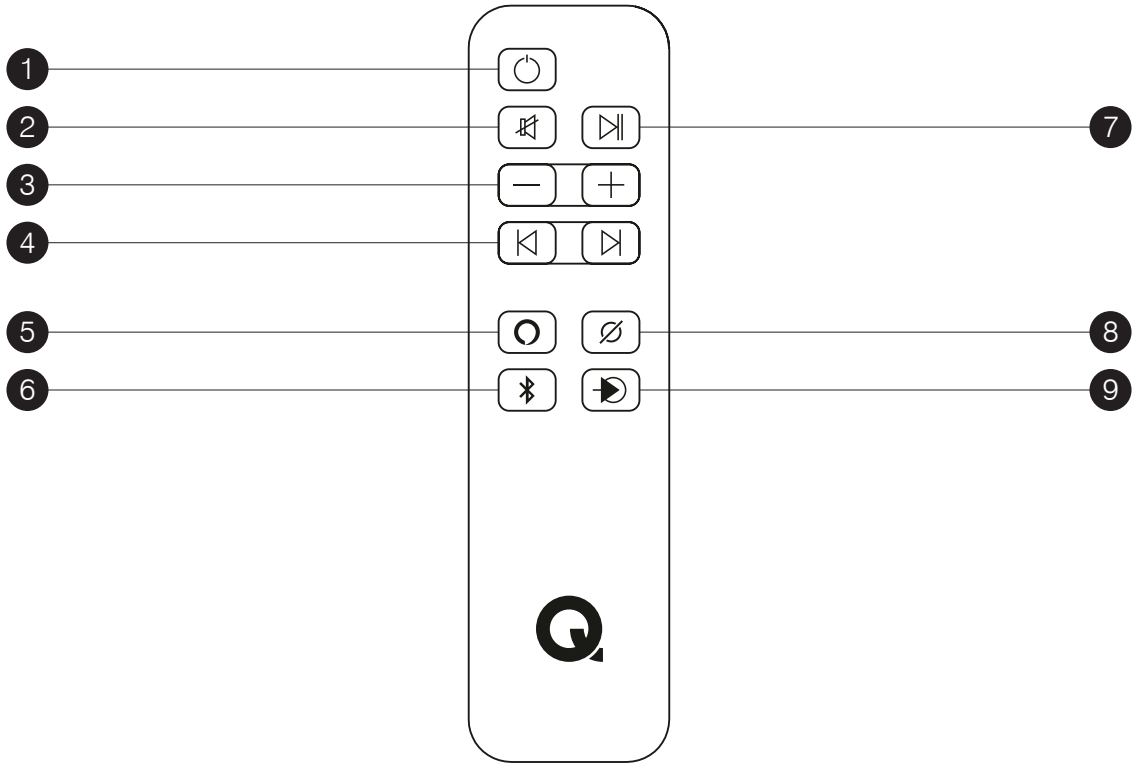
A Single Press

- Awaken 'Alexa' - Voice Commands Activation

Press and Hold

- Factory Reset - Reboots system, disconnects and clears the connections with: WIFI, Amazon Alexa Account, Bluetooth Paired Devices, AirPlay Devices & Customised Name (Device will be rebooted as: E300A)

Remote Control



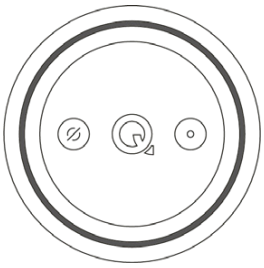
1. STANDBY – Press to STOP the current source playing and enter standby.
2. MUTE – Press to MUTE / UNMUTE the audio.
3. VOLUME +/- – Press to adjust the speaker volume.
4. SKIP I< / >I – Press to SKIP tracks.
5. ALEXA WAKE – Press to wake ‘Alexa’ for voice commands.
6. BLUETOOTH – Press to select the Bluetooth input.
7. PLAY / PAUSE >II – Press to play / pause the audio (Bluetooth and Network sources ONLY).
8. DO NOT DISTURB – Press to MUTE / UNMUTE the microphone.
9. INPUT – Press to manually select an AUX or LIM input.

LED States

E300A will display the standard Alexa LED status when speaking or listening. The source type is shown by a different colour which is fully illuminated for 3s, before reducing to a small segment unless E300A is in an error state.

Idle/Standby States:

Idle or Standby State



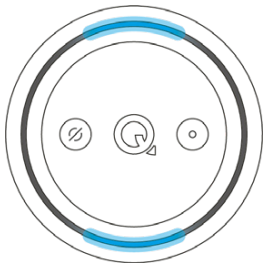
No LED Illumination

Error States:

No Internet Connection

Two ORANGE LED Blocks Indicate E300A has No Internet Connection, Display will last for 3 Minutes

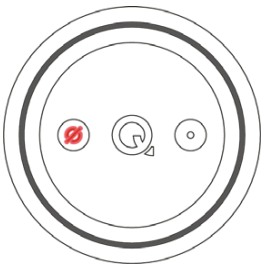
No Amazon Alexa Account



Two BLUE LED Blocks Imply No Alexa Account is Signed into the E300A, Display will Last for 15 Seconds – Can be Reactivated with an 'Awake Work' (e.g. "Alexa")

E300A's Microphone Muted:

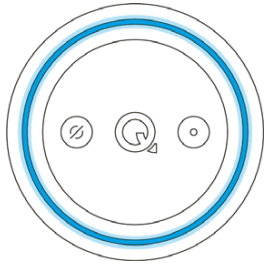
Microphone Muted



After 3 Seconds 'Muted MIC Button' is Illuminated in RED

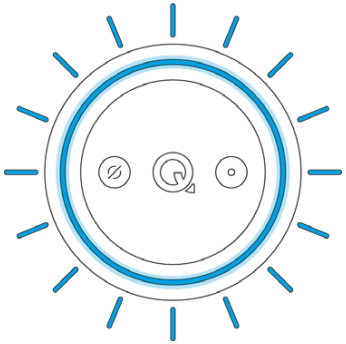
Audio Sources - Bluetooth:

Bluetooth Source Selected



BLUE LED Ring Illumination
for 3 Seconds

Pairing Mode



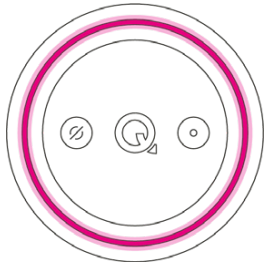
BLUE Flashing LED
for 60 Seconds

Bluetooth Source Connected

BLUE LED Block Indicating the
User is on Bluetooth Source

Audio Sources - AUX / TV / LIM:

AUX/TV/LIM Source Selected

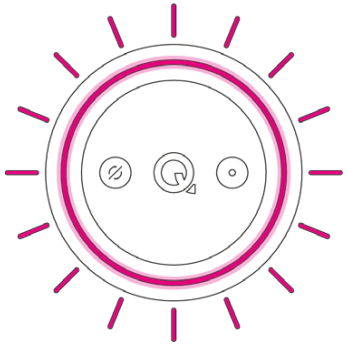


PINK LED Illuminated
for 3 Seconds

AUX Source

PINK LED Block Indicating
the User is on AUX Source

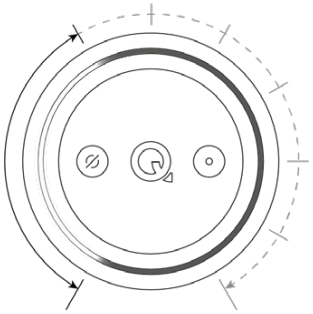
AUX Source Error State



PINK LED Ring Displayed
Flashing Twice every 3 Seconds
– No Audio is heard – Turn TV's
Audio Setting from 'Auto' to 'PCM'

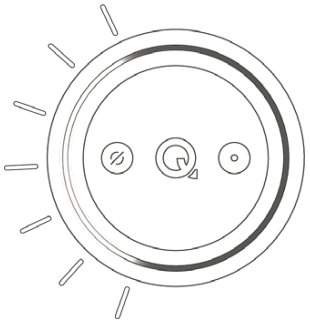
Volume Settings:

Current or Changing Volume



WHITE LED Ring Displaying the current and changing Volume Setting.

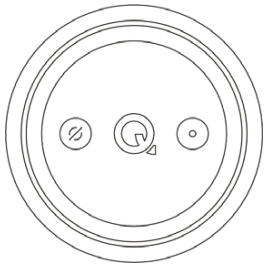
Mute Status



WHITE LED Ring Flashing its Current Volume Setting Indicating Mute Status

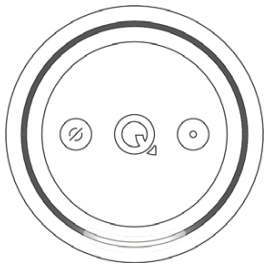
Audio Sources - Internet:

Internet Source Selected



WHITE LED Ring Illumination for 3 Seconds

Internet Source Connected



WHITE LED Block Indicating the User is on Internet Source

Specification

Audio Sources	Network Audio Streaming	RJ45 Ethernet or WIFI	
	Bluetooth	Wireless	BT 5.2 A2DP
	AUX:		
	- Analogue	3.5mm Stereo	Sensitivity: 350mV Max Level: 1.5V Impedence: 10kΩ
	- Optical	mini TOSLINK	Resolution: 16bit 48kHz
	Local Input Module	RJ45	
Audio Outputs	Speaker Outputs	Left & Right	Stereo
Music Services / Streaming Methods	Airplay 2.0	Ethernet / WIFI	
	Spotify Connect		
	TIDAL Connect		
	Amazon Music MRA		
Amplifier	Class D	Continuous Power	2 x 25W @ 6Ω
		THD	0.07% @ 1W 0.2% @ Rated Power
		SNR	>75dB @ Rated Power
		Frequency Response	20Hz - 20kHz +/- 1dB
Ratings	E300 Ceiling System	60 Minute Fire	
Control	Voice	Alexa Voice Services	
	IR Remote Control	x 13	
	BT AVRCP	v1.6 (Play, Pause, Skip, Track, Artist, Album Name)	
	Buttons	x 2 (Mute / Unmute, Reset)	
General	Power supply	Input	100 - 240V AC 50/60 Hz
		Output	22V DC 1.5Amps
		Dimensions (HxWxD)	30mm x 50mm x 115mm
	Power Consumption	Typical	10W
		Standby	<1W
		Deep Standby	<0.5W
	Ceiling Panel	Net Weight	0.55kg
		Dimensions (HxWxD)	145mm x 125mm x 125mm
Cables	Speaker Cable	Gauge	18 AWG
		Lengths	2 x 7m

Warranty

Q Acoustics Media products are warranted free of defects in materials and workmanship for a period of 1 year from the date of purchase. During the warranty period Q Acoustics will, at its option, repair or replace any product found to be faulty after inspection by the company or its appointed distributor or agent.

Misuse and fair wear and tear are not covered by warranty.

Goods for repair should in the first instance be returned to the supplying dealer. If this is not possible contact Q Acoustics or their appointed distributor for your area to determine the correct warranty procedure. If possible the original packaging should be used to return the product as damage sustained during transit to the repair centre is not covered by the warranty. The warranty does not in any way affect your legal rights.

Warranty can be extended to 2 years by registering your product at www.qacoustics.co.uk/register.
For service information in other countries visit: www.qacoustics.co.uk

Q Acoustics
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The Bluetooth® word mark and logo are registered trademarks owned by Bluetooth SIG, Inc. and use of such marks by Armour Home Electronics Limited is under license. Other trademarks and trade names are those of their respective owners.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Warning

This device complies with Industry Canada license-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio
exempts de licence. L’exploitation est autorisée aux deux conditions suivantes:
(1) l’appareil ne doit pas produire de brouillage, et
(2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment. This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition au rayonnement ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

For 5150-5250Mhz,

this device
is used for indoor only

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