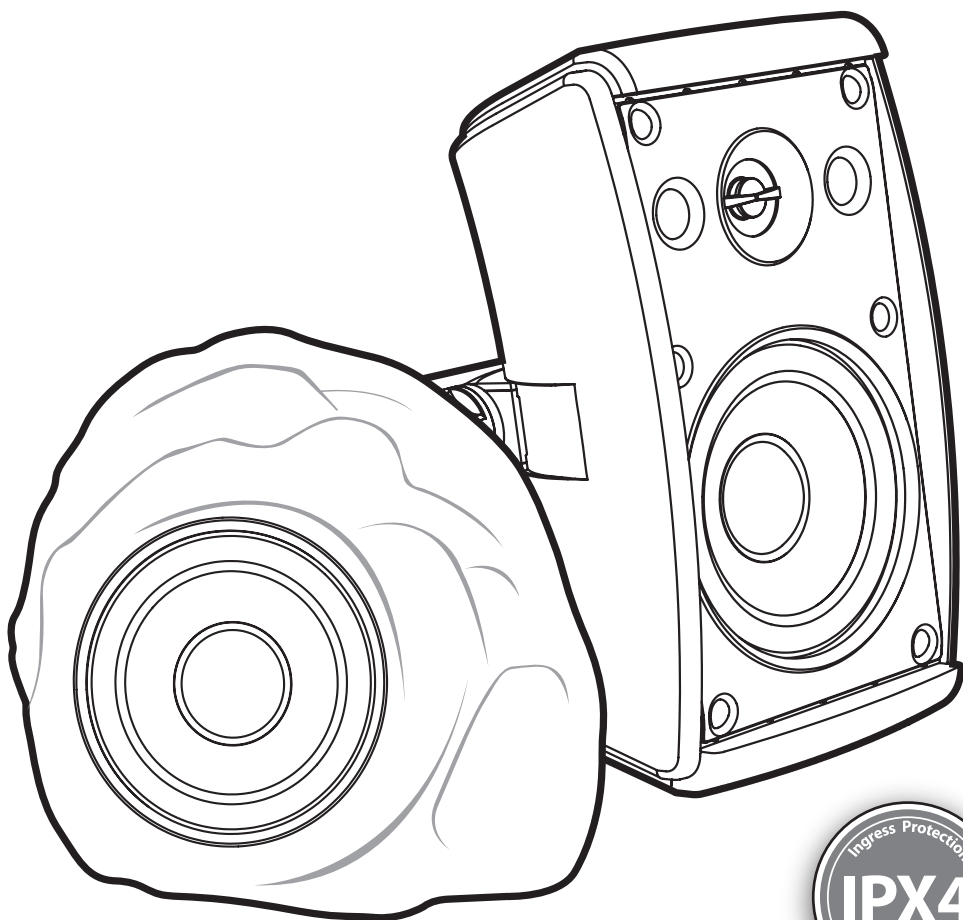




COVERT LOUDSPEAKERS

Quick start installation instructions for Q Install models:

Qi 45EW & Qi 65LW



Thank you for purchasing Q Install loudspeakers.
Please take a few minutes to familiarise yourself with the installation procedure.

Warning Notices

- It is important to ensure that the installation complies with relevant building regulations. If in doubt always consult a qualified installer.
- Before drilling mounting holes or laying speaker cables ensure that there is no conflict with other in-wall/in-ceiling or underground installed items such as water or gas pipes, or electrical cabling etc.
- Ensure that the speaker model is suitable for use in the intended application. Note that these products are not suitable for use in a marine environment where they will be exposed to salt spray.
- These products should only be cleaned using a damp cloth without the use of chemical cleaning agents. Do not use a garden hose or high pressure water jet as it may damage the speakers.
- The Qi 45EVV should NOT be positioned where water or rain will be driven directly into the grille (Figure 1). The speaker should always be mounted such that water will naturally drain away from the grille. For IPX4 protection in wet environments, the rubber ports plugs must be fitted.
- The Qi 65LWV should NOT be positioned on ground where there is insufficient drainage and risk of being submerged in standing water.

SPEAKER CABLE GENERAL GUIDELINES

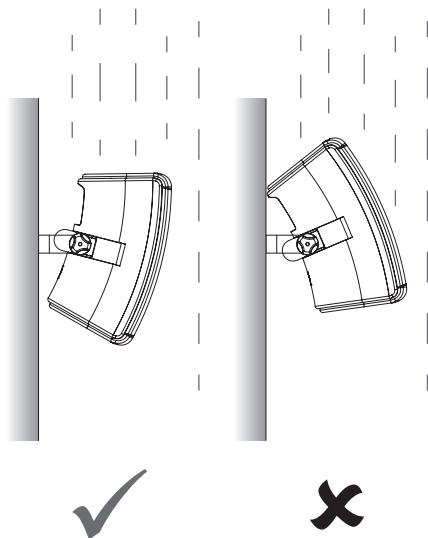
(ALWAYS ENSURE LOCAL REGULATIONS ARE MET)

Use speaker cable that has the correct rating, it is important to ensure that the wire gauge is adequate to cope with the longest run of cable required. When running speaker cables outside ensure they are moisture proof and resistant to UV exposure. If burying speaker cables in a trench use additional protection such as PVC piping or a cable rated for direct burial into the ground.

Distance	A.W.G.	mm ²
up to 45m	12	4.0
up to 30m	14	2.5
up to 20m	16	1.6

Minimum recommended wire gauges (single run to one speaker)

Qi 45EW Vertical Mounting



Qi 45EW Horizontal Mounting

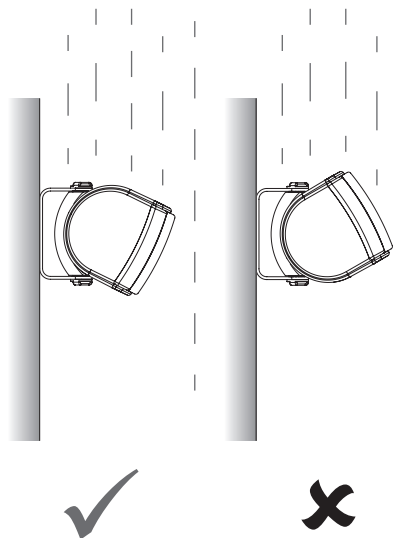


Figure 1. Qi 45EW installation orientation when exposed to rain.

Sound coverage area:

For large areas multiple pairs speakers may be required to give good stereo results. As a rough guide the recommended maximum area covered by two speakers should be no more than 30 - 40 m².

INSTALLING THE Qi 65LW ROCK SPEAKER

Step 1

Select a suitable location for the speaker taking note of the Warning Notices. The Qi 65LW can be installed directly on the ground, wood decking or a stone patio for example. Where it is mounted on earth it is recommended that a paving slab or similar is laid first to provide a firm horizontal base. This can then be covered with earth to camouflage. For best audio performance it is recommended that at least two speakers are installed. The perforated speaker grille/s should face the normal listening position and not be obstructed with shrubs or other objects (Figure 2) as this will reduce the sound level and audio performance.

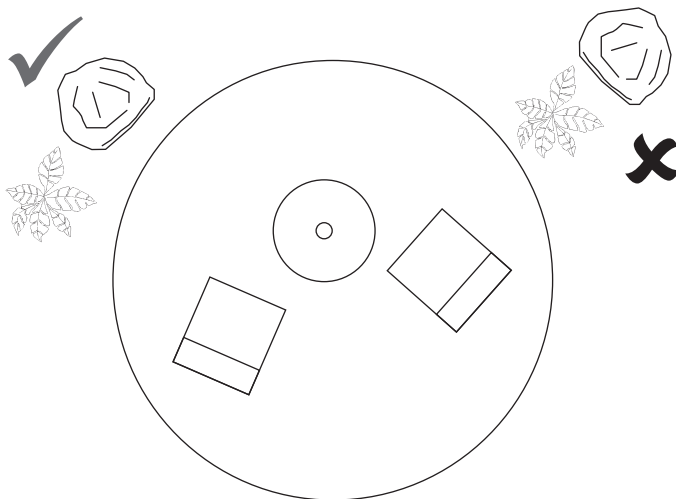


Figure 2. Position speakers clear of acoustic obstructions

Step 2

Make sure all audio equipment is switched off. Remove (unscrew) the square speaker connector cover on the base of the speaker to expose the speaker terminals. Any outer jacket should be trimmed back ~ 50 mm. Feed the speaker wires through the cover and then strip back the individual speaker conductors ~10mm so that there are bare wire ends. Attach the speaker leads using the pushdown spring clip terminals at the bottom of the speaker. The positive conductor should be connected to the red terminal and the negative conductor to the black terminal (Figure 3).

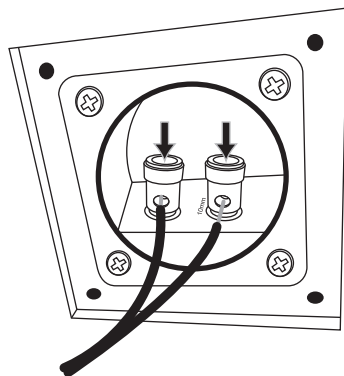


Figure 3. Qi 65LW Speaker cable connections

Step 3

Re-secure the speaker terminal cover plate. Position the speaker on its base ensuring that the cable exits through the notch at the rear of the speaker. Test the speaker/s with a music source to ensure there are no unwanted buzzes or vibrations from the supporting surface or nearby objects.

INSTALLING THE Qi 45EW INDOOR AND OUTDOOR LOUDSPEAKER

Step 1

Ensure that the package contains; Speaker, 1 x C-bracket, 2 x C-bracket lock nuts, 2 x rubber port plugs, 2 x speaker terminal weather protection boots and 1 x packet of grille adhesive. The speaker contains a 'C' mounting bracket and integrated angle adjuster that enables the speaker to be easily installed and adjusted in either a vertical or horizontal position.

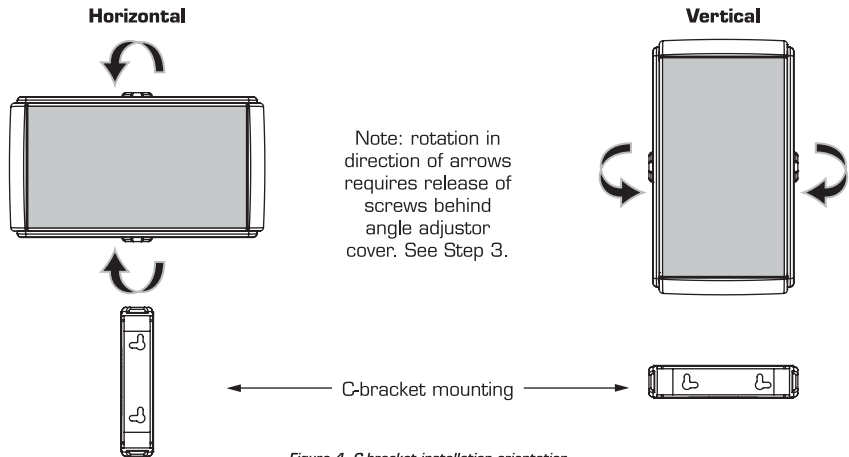


Figure 4. C-bracket installation orientation

Step 2

Decide on the preferred orientation of the speaker ensuring that all relevant Warning Notices are observed. For vertical speaker mounting the C-bracket should be mounted horizontally and for horizontal speaker mounting the C-bracket should be mounted vertically (Figure 4).

Using the bracket (separated from the speaker) as a template mark the position of the two fixing points on the surface to which the speaker is to be secured. It is important to ensure that there is sufficient room to both mount and adjust the angle of the speaker from any adjacent surfaces, so check this before drilling. Fixings should be selected (these are not included) that are appropriate for the mounting surface. Key slots are provided in the C-bracket that will accommodate an M4 sized pan screw head. Drill the holes and fit rawl plugs if required. Drive in the screws leaving ~ 5 mm of screw thread exposed on each. The bracket should be positioned over the exposed screw heads to check that the screws are accurately positioned and of the correct size to locate into the key slots. (Figure 5). The bracket should then be removed for attachment to the speaker in a safe location.

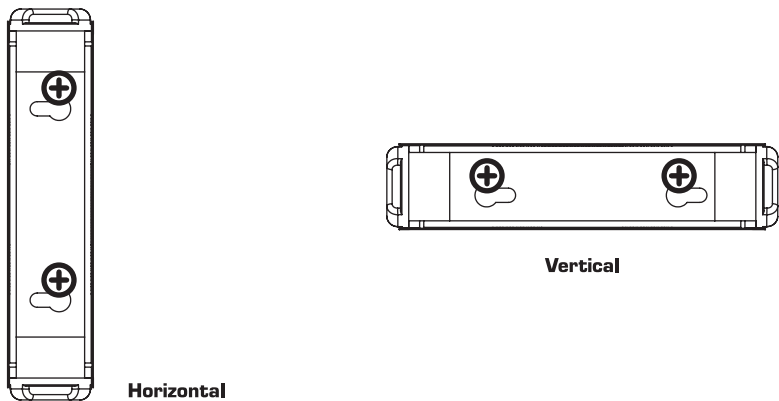


Figure 5. Ensure correct position of screws into key slots

Step 3

If mounting the speaker horizontally or requiring side to side rotation of a vertically mounted speaker (Figure 4), remove the plastic angle adjustor cover at the rear of the speaker by pulling it firmly (Figure 6), this will allow access to 2 locking screws (Figure 7). These should both be unscrewed a couple of turns each so that the angle adjustor can be rotated left or right (up or down) as required.

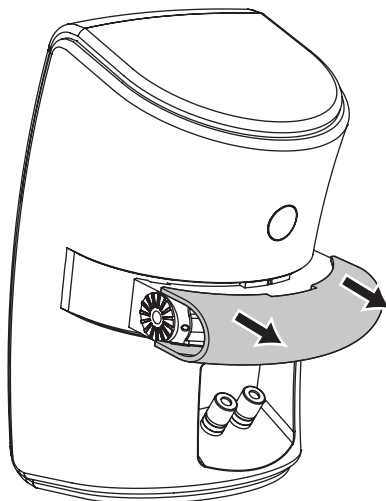


Figure 6. Qi 45EW removing angle adjustor cover

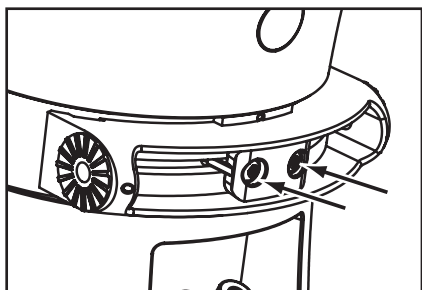


Figure 7. Qi 45EW Angle Adjustor screws
DO NOT REMOVE only loosen 2 turns

Note:

With a right angled screw driver it is possible to make adjustments with the speaker mounted on the wall as the cover can be removed and replaced with the C-bracket attached. Once the required angle is obtained the screws can be tightened and the cover clicked firmly back into place.

Step 4

Mount the C-bracket onto the speaker's angle adjustor using the 2 securing lock nuts (Figure 8). Ensure that the C-bracket is the correct way up so that when the speaker is mounted the screws will slot and secure correctly as shown in Figure 5. Tighten both locking nuts once the required C-bracket angle has been set.

Note: The locking nuts can be loosened and further adjustment undertaken when the speaker is on the wall if necessary.

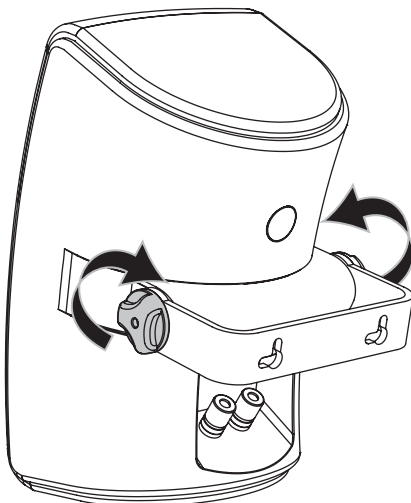


Figure 8. Qi 45EW attach the C-bracket to the speaker

Step 5

If fitted remove the rubber speaker terminal weather protection boots and keep these for use at Step 7. Weather protection boots are also packed separately within the carton.

Step 6

Mount the speaker on to the wall by passing the pre-installed (Step 2) securing screws through the C-bracket and slotting it down behind the screw heads. Using a right angled screwdriver tighten the screws so that the bracket is clamped securely to the wall.

Step 7

Strip back the individual speaker conductors ~10mm so that there are bare wire ends. Attach the speaker leads using the screw terminals at the rear of the speaker. The positive conductor should be connected to the red terminal and the negative conductor to the black terminal (Figure 9). Ensure that the weather protection boots are replaced over the terminals and that there are NO shorting strands of copper between the positive and negative terminals.

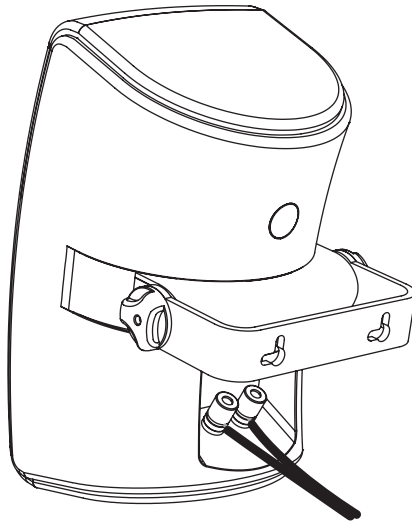


Figure 9. Qi 45EW speaker cable connections

Step 8

Position the speaker at the desired angle and tighten both the 2 rear angle adjusted locking screws (if necessary) and the C-bracket locking nuts.

Step 9

If the speakers are to be used where there is a possibility that water may be blown into the grille, the 'port' holes either side of the tweeter can be plugged using the supplied rubber port plugs. These should be pressed firmly into place (Figure 10).

Note: It is recommended that the plugs are only fitted when it is necessary to comply with IPX4, since the installation will reduce the amount of bass produced by the speaker.
To meet IPX4 the port plugs must be fitted.

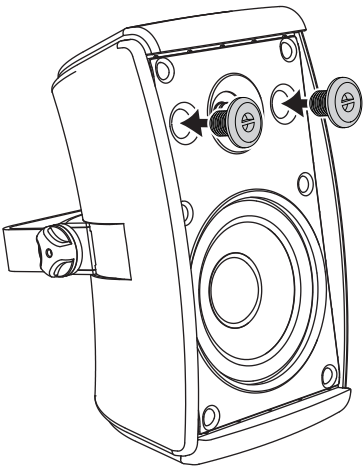


Figure 10. Insertion of rubber port plugs into port holes

Step 10

Included in the speaker pack is some flexible grille adhesive, this provides additional securing for the grille should it be considered necessary. To use gently pull the grille on both sides and pull away from the speaker (Figure 11). Press 4 pieces of the adhesive into the recess slot as indicated (Figure 12). Replace the grille by first ensuring that all grille edges are inside the bezel moulding and then pushing carefully back into place.

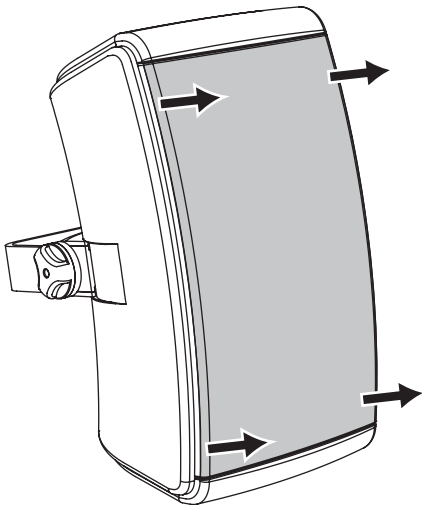


Figure 11. Qi 45EW grille removal

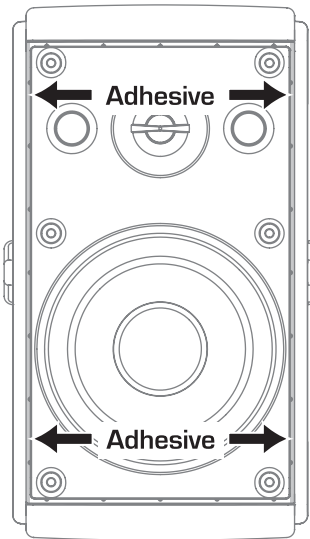


Figure 12. Positioning of adhesive strips before replacing grille

Step 11

Test the speaker to ensure that it is working correctly with no unwanted buzzes or rattles.

Q Install Warranty

Q Install loudspeakers are warranted free of defects in materials and workmanship for a period of 5 years from the date of purchase. During the warranty period Q Install 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 the warranty.

Goods for repair should, in the first instance, be returned to the supplying dealer. If this is not possible the item/s should be sent carriage paid, preferably in the original packaging, to Q Install or their appointed regional distributor accompanied by proof of purchase. Damage sustained by goods in transit to the repair centre is not covered by the warranty. Return carriage will be paid by Q Install or their distributor as appropriate.

The warranty does not in any way affect your legal rights.

Appointed Distributor in the UK:

armourHOME

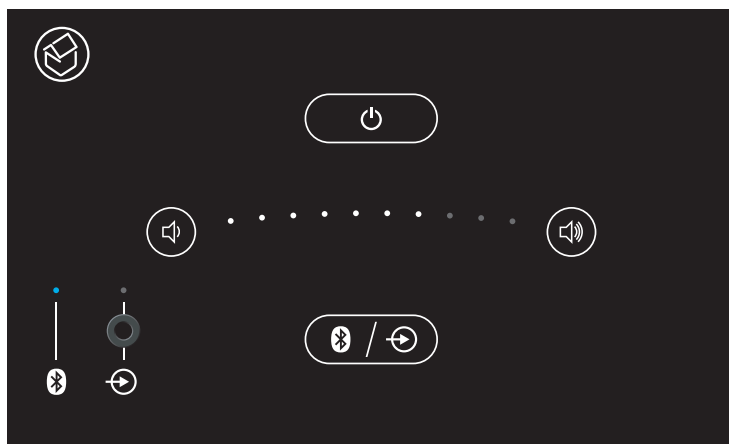
Armour Home Electronics Ltd
Stortford Hall Industrial Park
Bishops Stortford, Herts,
CM23 5GZ
UNITED KINGDOM

www.qinstall.co.uk

Q13412-15_r4

E50/E50w User Guide

*Built-in **Bluetooth®** Hi-Fi amplifier / touch panel*



Qualcomm®
aptX™



Gesture
control 

Important Safety Instructions



CAUTION: To reduce the risk of electric shock, do not remove the cover. No user-serviceable parts inside. Refer to qualified personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.



The lightning flash with arrowhead within an equilateral triangle is intended to alert the user to the presence of an uninsulated "dangerous voltage" within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating maintenance (servicing) instructions in the guide accompanying this device.

Read Instructions: All the safety and operating instructions should be read before the unit is operated.

Retain Instructions: The safety and operating instructions should be retained for future reference.

Heed Warnings: All warnings on the unit and in the operating instructions should be followed.

Follow Instructions: All operating instructions should be followed.

Cleaning: Unplug the unit from the wall outlet before cleaning. The unit should be cleaned only with a lint free dry cloth.

Attachments: Only use attachments recommended by the manufacturer as non-recommended attachments may cause hazards.

Water and Moisture: Do not use the unit near water—for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool.

Accessories: Do not place the unit on an unstable surface, stand, tripod, bracket, or table. The unit may fall, causing serious injury to yourself or others, and serious damage to the unit.

Ventilation: Do not place in a location or position that will interfere with the unit's ventilation. Do not operate on a bed, sofa, rug, or other similar surface.

Power Sources: The unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company.

Power-Cord Protection: 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 where they enter a plug, or exit from the unit.

Lightning: For added protection for the unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect from other devices. This will prevent damage to the unit due to lightning and power-line surges.

Overloading: Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

Object and Liquid Entry: Never push objects of any kind into the unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.

Servicing: Do not attempt to service the unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Damage Requiring Service: Unplug the unit from the wall outlet and refer servicing to qualified personnel under the following conditions:

- When the power-supply cord or plug is damaged,
- If liquid has been spilled, or objects have fallen into the unit,
- If the unit has been exposed to rain or water,
- If the unit does not operate normally by following the operating instructions,
- If the unit has been dropped or damaged in any way,
- When the unit exhibits a distinct change in performance— this indicates a need for service.

Replacement Parts: When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or which have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

Heat: The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.



This product complies with the Radio Equipment Directive (2014/53/EU) when used and installed according to the instruction manual.

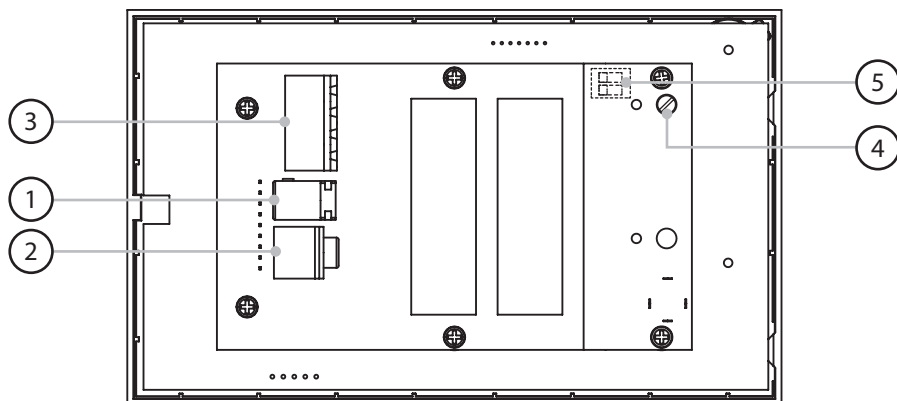
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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.

The user is cautioned that changes or modifications not expressly approved by Armour Home Electronics could void the user's authority to operate the equipment.

Contains FCC ID: OC3BM1856

Connections and Controls



E50 Rear View

Rear panel connections

1. Power input



*Use **ONLY** the power supply provided. Failure to do so may cause irreparable damage to the unit.*

***DO NOT** alter the length of the supplied DC extension cable*

2. Analogue audio – line in

Connect an analogue audio input here using a stereo 3.5mm jack cable such as QED Performance J2J. A green LED means this input is active.

3. Speaker outputs

Use the green terminal blocks provided to attach left and right stereo speakers.

Rear panel installer controls

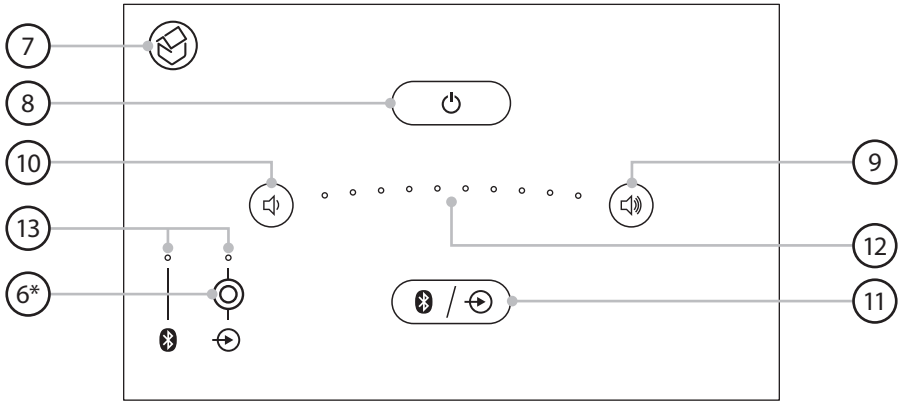
4. Max volume adjustment

See installer adjustments for details (page 11).

5. Stereo/Mono & EQ DIP switches

See installer adjustments for details (page 11).

* Not present on E50w. Both models include line in socket on rear.



E50 Front View

Front panel connections

6. Analogue audio - line in

Connect an analogue audio input here using a stereo 3.5mm jack cable such as QED Performance J2J. A green LED means this input is active.

Front panel controls

7. Standby indicator

Illuminates red to indicate the unit has entered standby.

8. Standby/on key

Touch here to toggle the unit on or off.

9. Volume up key

Touch here to increase the volume.

10. Volume down key

Touch here to decrease the volume.

11. Source key

Touch here to toggle between *Bluetooth* and line-in sources.

12. Volume position array

Provides a visual indication of current volume setting. A single pulsing LED means mute. Auto dims after 10s. Touch here to toggle play/pause when in *Bluetooth* mode.

13. Indicator LEDs

Blue = *Bluetooth*, Green = Analogue In

Operating Instructions

Pairing/connecting a *Bluetooth* music source

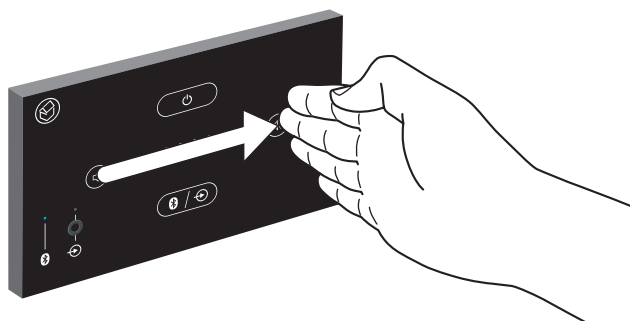
1. The E50 is always in pairing mode. Navigate to the *Bluetooth* devices list on your phone or other *Bluetooth* transmitter device. Select *Systemline E50(_n)* from the device list. If the phone has not previously been paired a *Bluetooth pairing request* will be displayed on the phone. On the E50 the blue LED will flash.
2. Press and hold the *source* key on the E50 until the blue LED stops flashing.
3. Press *pair* on the phone. The unit will now pair and connect. The E50 will wake up, the blue LED will be illuminated and the default volume level will be displayed.
4. If the phone has previously been paired it will connect straight away, without the need for steps 2 and 3.

Listening to a *Bluetooth* music source

1. If not already done, pair or connect with the *Bluetooth* device (see above).
2. Navigate to the media player on your phone or other *Bluetooth* transmitter device and press *play*. The *Bluetooth* source will be selected and music will play through the E50.
3. Check that the blue source LED is illuminated, if not press the *source* key on the E50. The LED will turn from green to blue and the default volume level will be displayed.

To skip track forwards in *Bluetooth* mode

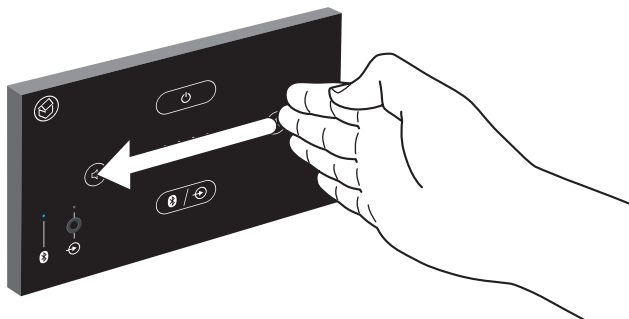
1. Use your four outstretched finger tips to flick from left of the *volume down* key to right of the *volume up* key in a single consistent sweeping motion from left to right at a distance of up to 70mm from the front panel. Do not actually touch the front panel. The track will skip forward.



Skip track forwards using hand gesture

To skip track back in *Bluetooth* mode

1. Use your four outstretched finger tips to flick from right of the *volume up* key to left of the *volume down* key in a single consistent sweeping motion from right to left at a distance of up to 70mm from the front panel. Do not actually touch the front panel. The track will skip back.



Skip track back using hand gesture

To pause/play in *Bluetooth* mode

1. Touch the centre of the touch panel where the volume LEDs are positioned to pause playback while in *Bluetooth* mode.
2. Touch the centre of the touch panel again to resume playback.

Listening to an analogue music source

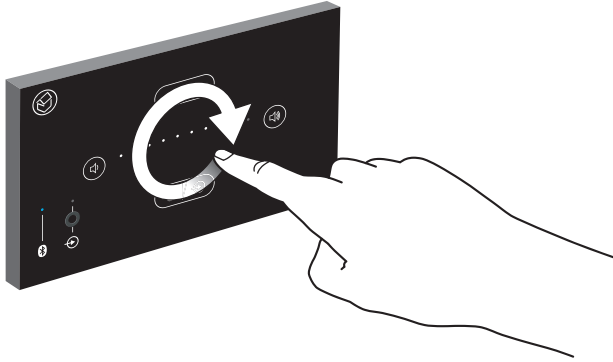
1. Make sure that a compatible analogue music source is connected to either the front or rear input jack (not both) using a 3.5mm stereo audio jack cable.

Do not connect audio sources to the front and rear line inputs at the same time.

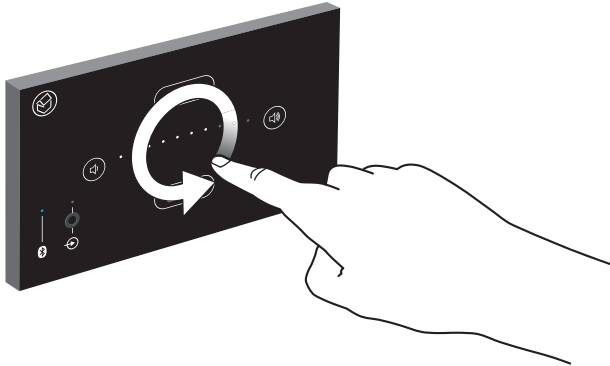
2. Check that the green *source* LED is illuminated. If not, press the *source* key. The green LED will be illuminated and the default turn on volume level will be indicated.

To adjust the volume

1. Touch the *volume up* key to increase the level of the music, and touch the *volume down* key to reduce it.
2. The same functionality can be achieved using a convenient gesture control.
3. Use your index finger to describe a circular pattern within the confines of the four touch key symbols at a distance of up to 70mm from the front panel. Do not actually touch the front panel. A clockwise rotation will increase the volume level and an anti-clockwise rotation will decrease the volume level.



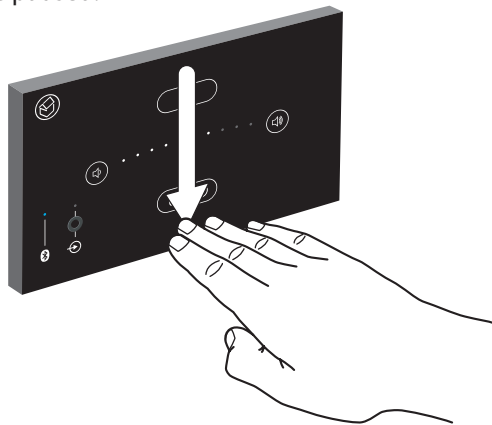
Increase volume using hand gesture



Decrease volume using hand gesture

To mute the volume

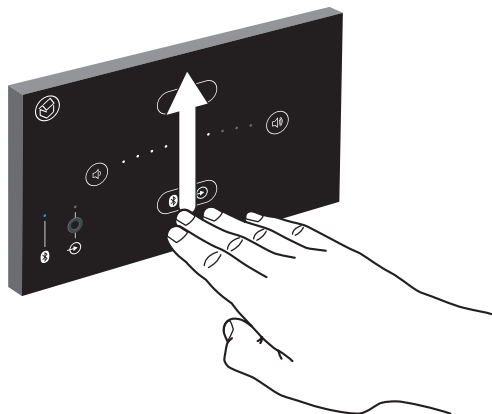
1. Use your four outstretched finger tips to flick from above the *standby* key to below the *source* key in a single consistent sweeping motion from top to bottom at a distance of up to 70mm from the front panel. Do not actually touch the front panel.
2. The music will mute and the white volume LED will gently pulse. In *Bluetooth* mode the music will also be paused.



Mute using hand gesture

To unmute the volume

1. Use your four outstretched finger tips to flick from below the *source* key to above the *standby* key in a single consistent sweeping motion from bottom to top at a distance of up to 70mm from the front panel. Do not actually touch the front panel.
2. The music will unmute and the volume display will return to the previous setting. In *Bluetooth* mode the music will also be unpaused.



Unmute using hand gesture

To put the E50 into standby

1. Press the *standby* key. The E50 will turn off and the red LED will illuminate. In this mode the amplifier is turned off and the *Bluetooth* connection is dropped. The E50 is still in *Bluetooth pairing mode* and will wake instantly when the *standby* key is pressed or when paired.

To put the E50 into deep standby

1. Press and hold the *standby* key until the red LED is extinguished. In this mode the amplifier and the *Bluetooth* pairing are turned off and the unit will consume only 0.5W of power.
2. When the *standby* key is pressed the unit will reboot to standby mode as above.

Installer Adjustments

Maximum volume setting

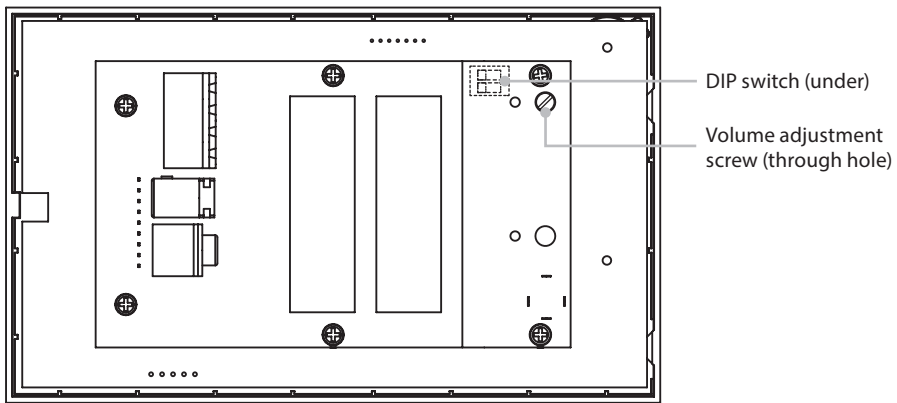
To restrict the maximum volume level of the E50, adjust the preset screw (labelled below) with a small flat blade screw driver. Turning anti-clockwise will reduce the maximum volume level and turning clockwise will increase it. The maximum output level of the speakers will be altered accordingly but the range of volume indication on the front of the unit will not be affected.

Mono/Stereo setting

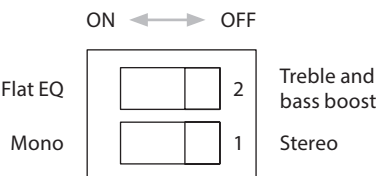
To set the amplifier output to *mono*, use a ball point pen or small screw driver to move the DIP switch #1 (labelled below) to the *ON* position. The default position for this switch is *OFF* (*stereo*).

EQ adjustment

To adjust the EQ to a flat response, use a ball point pen or small screw driver to move the DIP switch #2 to the *ON* position. The default position for this switch is *OFF* (*treble and bass boost for Qi 65CB speakers*).



Rear panel controls for installer adjustments



DIP switch detailed view

Changing the *Bluetooth* name

The E50 is shipped with the default *Bluetooth* name “*Systemline E50*”. For installations where multiple E50s are within range of the same *Bluetooth* source, each E50 can be renamed in order to distinguish one from another.

1. Make sure that the E50 is in standby mode. Press and hold the *standby* and *source* keys at the same time until the white volume LEDs are illuminated and the green source LED is flashing.

DO NOT PRESS ANY BUTTONS. WAIT 2 SECONDS.

2. Press the *source* key once. The blue source LED will flash.
3. Using the *volume up* and *down* keys on the E50 and the chart below, illuminate the corresponding number of white volume LEDs to select a new *Bluetooth* name.
4. Press the *standby* key once to set the new *Bluetooth* name.

The E50 will reboot with the new *Bluetooth* name.

Status of LEDs:

Number of white LEDs illuminated	<i>Bluetooth</i> Name
1	E50
2	Kitchen
3	Dining
4	Living
5	Master Bed
6	Ensuite
7	Bathroom
8	Conservatory
9	Garden
10	Systemline E50_2

To disable gesture control

The E50 is shipped with gesture control enabled. In some installations gesture control may not be required. In order to enable/disable gesture control:

1. Make sure that the E50 is in standby mode. Press and hold the *standby* and *source* keys at the same time until the white and green LEDs are illuminated.

DO NOT PRESS ANY BUTTONS. WAIT 2 SECONDS.

2. To disable gestures press the *volume down* key to extinguish all the white LEDs.
3. To enable gestures press the *volume up* key to light all the white LEDs.
4. Press the *standby* key to save the current setting.

Troubleshooting

There is no sound	Check that the correct input is selected using the <i>source</i> key.
There is no sound when using the Bluetooth input	Check that the Bluetooth device is correctly paired (blue LED).
	Make sure the Bluetooth source is playing.
There is no sound when using the analogue input	Check that the analogue source device is correctly connected (front or rear jack).
	Check that the analogue source is playing and that any volume on the device is set to maximum.
	Check that the Bluetooth device is not connected (green LED).

Technical Specification

Power Supply	18-19V , 2.5-3.5A DC	
Frequency Response	10Hz – 20kHz ±1dB	
Signal to Noise Ratio	> 80dB	
Cross-talk @ 1kHz	better than 60 dB	
Total Harmonic Distortion		
@1kHz Bluetooth input		0.1%
@1kHz Line input		0.2%
Maximum output level		
Speakers		18W/ch continuous
Minimum speaker inpedance	4Ω	
Sensitivity		
Analogue		550mV rms Line in
Digital		0dBFS
Dimensions (W x H x D)	150 x 90 x 47mm	
Weight	830g	

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