

*Ashdown Acoustic
Radiator 1 & 2*

OPERATING INSTRUCTIONS



ASHDOWN ACOUSTIC RADIATOR OPERATING INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

WARNING - When using electrical products, these basic precautions should be followed:

1. Read all the instructions before using the product.
2. Do not use this product near water, e.g. near a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool, etc.
3. This product may cause permanent hearing loss. Do not operate for long periods of time at a high volume level or at any level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
4. The product should be placed so that its location or position does not interfere with its proper ventilation.
5. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
6. The product should be connected to a power supply of the type described in the operating instructions or as marked on the product.
7. The power supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
8. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
9. The product should be serviced by qualified personnel when any of the following occur:
 - a. The power supply cord or the plug has been damaged
 - b. Objects have fallen, or liquid has been spilled, into the product
 - c. The product has been exposed to rain or moisture
 - d. The product doesn't appear to operate normally or exhibits a marked change in performance
 - e. The product has been dropped, or the enclosure damaged
10. Do not attempt to service the product. All servicing should be referred to qualified service personnel.
11. For continued protection against the risk of fire, replace fuses only with those of the same type and rating as indicated on the back of the product.

WARNINGS USED ON THE EQUIPMENT

WARNING - ATTENTION

THIS APPARATUS MUST BE EARTHED FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE. UTILISER UNFUSIBLE DE RECHANGÉ MEME TYPE ET CALIBRE

WARNING TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.



The lightning flash with the arrow head symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated 'dangerous voltage' within this product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

LINE / LINK OUT

This allows you to have a line out to other power amps and to link to other Ashdown Acoustic radiators via the line in.

DIRECT INJECT (D.I.)

A balanced DI is provided. This unit features a push button placed below the XLR that allows the user to choose either Pre or Post EQ and effects signal. The output signal from this XLR socket is set to a level and impedance suitable for connecting directly into the microphone input of a mixing desk for either direct injection into the PA system or for recording.

THE ASHDOWN ACOUSTIC RADIATOR DESIGN PHILOSOPHY

The Ashdown Acoustic Radiator amplifiers are designed with three key factors in mind: quality of sound, portability and style.

Top quality PA speakers have been used, which feature 150W power handling and dual concentric tweeters for optimum treble dispersion. The Acoustic Radiator 2 features an additional auxiliary bass radiator. This unit draws no power from the amplifier and works from the air movement of the powered unit, giving extended low energy and a natural bass response to the cabinet.

The use of bridged output devices ensures 100% smooth output. The doubling of reservoir output capacitors for the output stage enables instantaneous power.

The exact sound and style of your Acoustic Radiator can be tailored to your personal choice through the provision of Real Wood or Plywood cabinets in a range of finishes: Cherry, Walnut, Bakerlite / MDF and Plywood with vinyl covering in black or bookbound leather style. All cabinets are built in an easy to carry design with hand stitched removable leather handle.

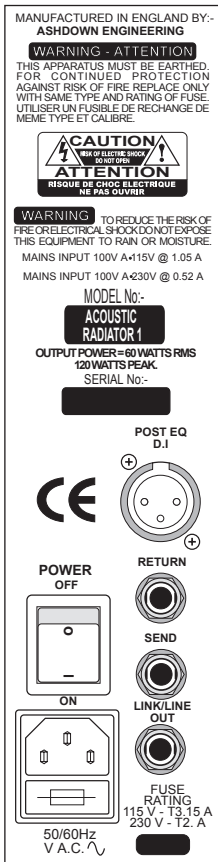
The absence of any cooling fans enables the unit to run as silently as possible.

Everything possible has been done to make the Acoustic Radiators reliable, top of the range, minimum service, high quality, long lasting, powerful amplifiers.

We know you will appreciate the effort that has been put into the design and manufacture of these units and you will be rewarded in your choice of bass amplifier by long life and reliability.

REAR PANEL FACILITIES

ACOUSTIC RADIATOR 1 REAR PANEL



EFFECT SEND / RETURN

A serial loop is provided at a level of 0db. The effects send socket can also be used as a line out socket if required. The signal path is only broken when a jack plug is inserted into the effects return.

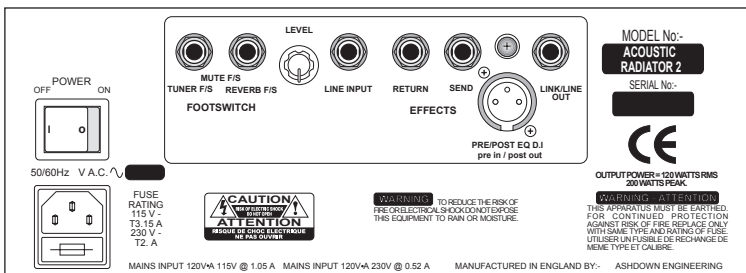
LINE OUT / TUNER OUT / LINK

This output socket provides a line level that can be used for a permanent connection to a tuner or a line slave up to other power amplifiers or Ashdown Acoustic combos via the link facility.

XLR DI OUT

A post EQ balanced XLR DI out is also provided. The output level from this XLR socket is set to a level of impedance suitable for connecting directly into the microphone input of a mixing desk for either direct injection into the PA system or for recording.

ACOUSTIC RADIATOR 2 REAR PANEL



FOOTSWITCH

The reverb f/s socket allows you to switch the reverb on or off. It will switch the channel(s) you have selected at the time. Tuner f/s will mute the output and ID leaving the tuner working.

LINE INPUT

This allows you to put a line into the amplifier from other products, drum machines, tapes etc.

LINE LEVEL

This allows you to set the input level of your drum machine / DAT so it is mixed in to your sound at the desired level.

EFFECTS SEND / RETURN

A serial effects loop is provided at a level of 0db. The effects send socket can be used as an additional line out socket if required. The signal path through the pre amp is only broken when a jack plug is inserted into the effects return socket.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

GROUNDING INSTRUCTIONS

This product must be grounded (earthed). If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a supply cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with the local codes and ordinances.

DANGER - Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet fitted.

The wires in this mains cord are coloured in accordance with the following code:

Green & Yellow - Earth

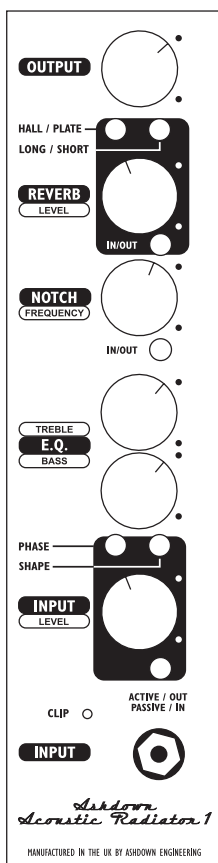
Blue - Neutral

Brown - Live

CE mark for European Harmonised Standards

The CE mark which is attached to these products means it conforms to EMC Directive (89/69/EEC), CE mark Directive (93/68/EEC) and Low Voltage Directive (72/23/EEC).

FRONT PANEL FACILITIES



ACOUSTIC RADIATOR 1 FRONT PANEL

INPUT

A single input is provided.

ACTIVE / PIEZO SWITCH

This allows you to switch the unit for active guitars or passive / piezo instruments where a higher input level would be required.

INPUT LEVEL CONTROL / LED LEVEL INDICATOR

Once you have set your instrument to the required EQ settings on both the amp and instrument you should then set the input gain to the most efficient level. This will be indicated by the LED indicator flashing green. If the LED overload indicator flashes RED then turn back the level control until this returns to green.

SHAPE IN / OUT

With this button in you get a natural pre shape to the sound with a bass boost, treble boost and mid cut sound.

PHASE SWITCH IN / OUT

Use this switch to eliminate standing wave feedback, if you have a small

amount of feedback change the position of the switch and return to the position in which you were playing. This switch position is very much dependant on the guitar's distance from the amplifier.

TREBLE / BASS CONTROLS

These vary the level of bass and treble of the unit.

NOTCH IN / OUT & FREQUENCY CONTROLS

You may switch the notch filter in and out to help you eliminate feedback at higher playing levels. The frequency can be swept until you find the offending feedback frequency. This unit has a fixed 'Q' for the variable frequencies.

REVERB CONTROLS

In / out, simply turns the reverb on or off.

REVERB LEVEL

This allows you to set the amount of reverb level you require.

HALL / PLATE, LONG / SHORT

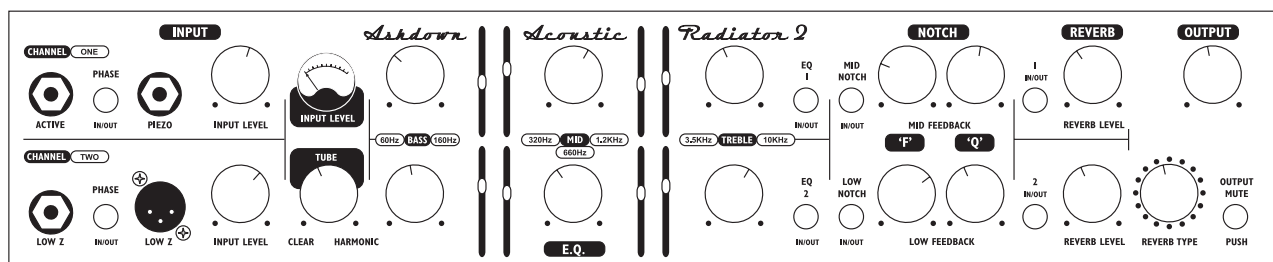
This allows you to have various settings for the reverb type. You can have hall, short, hall, long, plate short or plate long.

OUTPUT LEVEL CONTROL

This sets your desired playing level / volume.

ACOUSTIC RADIATOR 2 FRONT PANEL

THE Acoustic Radiator 2 is a twin channel unit. Channel one is for active or piezo inputs, while Channel two works for piezo and LOW Z mic inputs on either jack or XLR inputs. The two channels allow the player to use multiple formats to play, a mic and a pick up can be mixed together to give the best possible sound for the acoustic guitar. The range of input facilities also allows for the wide range of acoustic guitar outputs in the world today.



PHASE SWITCH

Both channel one and two feature Phase switches to allow for the elimination of standing wave feedback. If you are suffering from an element of feedback, try switching this in or out and return to the same playing position you had previously encountered the feedback. This may eliminate the problem in itself. If not you will find a notch filter further on in the pre amp.

LEVEL CONTROL

Both channel one and two have individual input level controls. This should be used in conjunction with the VU level indicator.

VU INPUT LEVEL INDICATOR

Set your instrument to your usual output setting and EQ setting. Also set the pre amplifier EQ to your usual setting prior to setting the input level. Then play your guitar as hard as you are ever likely to play the instrument. Use the level controls to ensure that the level indicator on the VU does not go into the red at peak levels of play. Every EQ adjustment you make to your guitar and amplifier will affect the input sensitivity.

CLEAR / HARMONIC CONTROL

This control operates a dual triode valve / tube on the pre amp. Clear is with NO tube harmonics at all. As you turn the control clockwise you will encounter 2nd harmonics. This feature is designed to add both an element of warmth to today's digital sounds and also allow improved harmonics.

EQ

The pre amp features identical 7 band EQ for both channels, the large rotary controls allow you to set with ease the sound you require. Use the sliders to fine tune your mid frequencies. The EQ IN / OUT switch allows you to switch the EQ in or out for each channel, when the EQ is out the pre amp is flat.

NOTCH & NOTCH IN / OUT

The Acoustic Radiator 2 features an industry-first dual notch filter. This works on the overall sound of both channels. The NOTCH IN / OUT switches allows you to switch the notch filters in or out.

'F' (FREQUENCY)

This allows you to sweep the frequency range of the amplifier to find the offending feedback area on both MID and LOW notch. Once you have found the feedback frequency you can then further fine tune this with the Q control. This will allow you to take a wide band or small band of frequency out of the sound in both the MID and LOW notch filters. In this way you can take out the very least of the important note you have whilst still eliminating the feedback.

'Q'

This control on both Mid and Low notch filters allows you to fine tune the width of the frequency being removed. The depth of cut is automatically modified as you turn the Q control.

REVERB IN / OUT & LEVEL

This feature is also footswitchable with any latching footswitch available today. You can switch in either channel one, two or both. There is a reverb level control for both channel one and two, this allows you to set the amount of reverb for each channel.

REVERB TYPE

This allows you to select the type of reverb for both channels. Available types are: Hall 1, Hall 2, Hall 3, Room 1, Room 2, Room 3, Non-linear, Plate 1, Plate 2, Plate 3, Chorus, Flange, Delay, Chorus / Room 1, Chorus / Room 2, and Rotary.

OUTPUT

This sets the output level of your amplifier.

OUTPUT MUTE

This facility is also footswitchable. It will mute the output to the internal speaker and also mute the DI out as well. This can allow you to tune your instrument without anyone hearing, as the tuner / line out is still active.

SPECIFICATIONS

ACOUSTIC RADIATOR 1

INPUTS

Panel	Impedance 3.9M Ohms	Input range: Active 150mV - 25Vp-p Passive 300mV - 25Vp-p
Return	Impedance 47k Ohms	Input 0dBu nominal

OUTPUTS

Line out	Impedance 47k Ohms	Level 0dBu nominal
Send	Impedance 10k Ohms	Level 0dBu nominal
DI out	Impedance 600 Ohms	Level -20dBu nominal

GENERAL SPECIFICATION

Low / Hi trim	±12dB
Frequency response	-3dB at 28Hz and 28kHz
Signal / Noise ratio	>80dB (EQ flat)
Distortion	<0.8% THD
Notch	from 70Hz - 350Hz
Power requirements	230V / 115V AC

ACOUSTIC RADIATOR 2

INPUTS

High	Impedance 10k Ohms	Input range 300mV - 25Vp-p
Low	Impedance 3.9M Ohms	Input range 150mV - 25Vp-p
Low Z	Impedance 600 Ohms	
Return	Impedance 22k Ohms	Input range 0dBu nominal

OUTPUTS

Line out	Impedance 22k Ohms	Level 0dBu nominal
Send	Impedance 22k Ohms	Level 0dBu nominal
DI out	Impedance 600 Ohms	Level -20dBu nominal

GENERAL SPECIFICATION

EQ	±15dB
Frequency response	-3dB at 28Hz and 28kHz
Signal / Noise ratio	>80dB (EQ flat)
Distortion	<0.8% THD
Notch	Low 40Hz - 160Hz and Mid 120Hz - 500Hz
Power requirements	230V / 115V AC

