



Thank you for purchasing your Ashdown Engineering Amplifier. If you live in the UK, please register your purchase by completing this form and return it to the following address:

Ashdown Engineering, The Stables, Stevens Farm, Mashbury Road,
Chignal St James, Chelmsford, Essex CM1 4TX

(Alternatively you can register online at <http://www.ashdownmusic.com>)

If you live outside the UK, the local Ashdown distributor may have included a specific registration form for your country.

Your Ashdown Engineering product details:

Model
Colour
Voltage
Tested by
Serial number
Date

1 YEAR WARRANTY

Your Ashdown Engineering amplifier has been manufactured to the highest standards, using the best-selected materials. To ensure its optimum performance, please ensure your amplifier is regularly serviced. This product carries a one year warranty, against defects in materials and workmanship, for the original purchaser. Ashdown Engineering will, at their discretion, replace or repair any product or part thereof, which is found by Ashdown Engineering to be defective. This warranty shall not apply to the damage of covering, fittings or finishes when affected by carelessness, accident or extreme climate changes. Nor does it apply to normal wear and tear of parts such as valves, fuses, light bulbs, speakers, controls etc.

Please complete the lower section of this warranty and return it within 10 days of purchase to Ashdown Engineering Ltd. at the above address. In the unlikely event of any defect, please contact an authorised Ashdown Engineering dealer. All transport charges are to be pre-paid by the Owner. Unless the registration card is returned normal country warranty laws apply.

IMPORTANT - REGISTRATION CARD

Please complete and return this warranty within 10 days of purchase. Include any comments if possible.

Name Purchased from
Address Date
..... Model
..... Serial Number
.....
Email
Age
Comments
.....
.....



www.ashdownmusic.com

OPERATING INSTRUCTIONS



OPERATING INSTRUCTIONS

Acoustic Radiator Series 3 (AAR3)

Important Safety Instructions

BASIC PRECAUTIONS

WARNING - When using electrical products, basic precautions should be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water – for example, near a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool.
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. Make sure nothing interferes with the ventilation of the product when in use.
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:
 - a. The power supply cord or the plug has been damaged; or
 - b. Objects have fallen, or liquid has been spilled into the product: or
 - c. The product has been exposed to rain or moisture: or
 - d. The product does not appear to operate normally or exhibits marked change in performance: or
 - 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 TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

WARNING - ATTENTION
THIS APPARATUS MUST BE EARTHED FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE. UTILISER UN FUSIBLE DE REMPLACEMENT DE MEME TYPE ET CALIBRE.



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.



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 suitable 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).



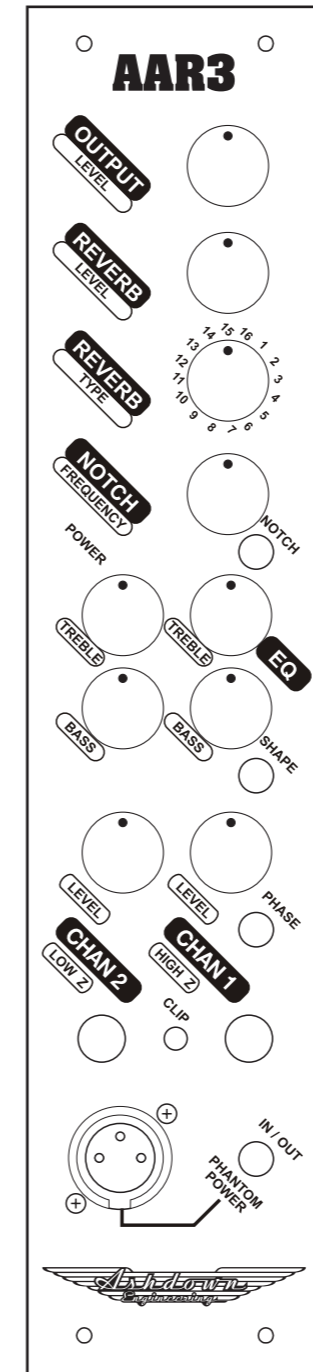
The products in the AAR3 range have been designed as Acoustic Monitors to be utilised as floor standing wedge monitors for acoustic instruments. In this application the main PA is fed from the balanced, low impedance D.I. socket provided.

These are however stand alone, full function, high quality, powerful, bi-amped 'Acoustic Instrument' amplifiers providing all the facilities required for satisfactory 'Full Range' amplification of acoustic guitar and other demanding acoustic instruments.

Full Range amplification is achieved with Dual Concentric drivers where the 'Tweeter' is an integral part of and in the centre of the 'Woofers' for optimum dispersion and frequency alignment. These are driven from Bi-Amped digital output stages using switched mode power supplies for maximum portability and minimum weight.

These amplifiers may also be used in 'Combo' fashion for back line amplification i.e. stood on one end rather than laid down. As a further option they may be mounted using the supplied fitting onto a stand to act as a mini PA for small venues. The ultimate in versatility and portability for the acoustic musician.

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 Acoustic amplifier by long life and reliability.



INPUTS

The AAR3 has a twin channel pre-amp. Channel 1 is High Impedance and is ideal for use with instruments that use a Piezo transducer/pick up connected directly to the Input jack. This channel is also intended for use with instruments that have an active (battery powered) pre-amp already built in. Channel 2 is intended for Low Impedance or Microphone inputs on either balanced XLR or balanced/unbalanced jack connection. This channel may also be used with Active instruments i.e. those that have a built in pre-amp as long as the output from that pre-amp is low impedance. Both Dynamic and Condenser microphones can be used as switch selectable 'Phantom Powering' is provided. The two channels allow both Microphone and Pick Up inputs to be used simultaneously and mixed together to give the best possible amplified sound for the acoustic guitar. Alternatively one channel can be used for guitar and the other for a vocal microphone to form a mini PA system.

PHANTOM POWER SWITCH

This can be switched in to apply a Phantom Power voltage to channel 2 inputs. This is only for use with suitable condenser microphones. Do not switch this in for any other type of input to channel 2.

INPUT LEVEL CONTROL / CLIP LED LEVEL INDICATOR

Once you have adjusted your instrument to the required EQ settings on both the amplifier and the instrument you should then set the channel LEVEL control for optimum signal to noise ratio. The optimum LEVEL setting is when the CLIP LED is indicating GREEN most of the time for normal playing, with occasional peaks flashing RED. If RED is showing most of the time then reduce the setting of the channel LEVEL control until it returns to GREEN.

The CLIP LED indicates the level for both Channel 1 and Channel 2.

PHASE SWITCH

This switch reverses the Phase of the signal through Channel 1 of the amplifier and is

used to help eliminate standing wave feedback; as such it is very dependant upon the position of the player relative to the amplifier. If feedback is occurring try altering the setting of this switch to cancel out any standing wave between you and the amplifier.

Alternatively you can alter your position relative to the amplifier to try to improve the situation. Please try the switch in both positions to determine the least resonance/feedback from the body of your instrument. This is especially useful if you are in cramped conditions where it is difficult to alter your playing position relative to the location of the amplifier.

SHAPE SWITCH

This switch introduces a natural pre-shape to the sound of Channel 1 adding a bass boost, a mid cut and a treble boost that suits both strumming and finger picking styles of playing.

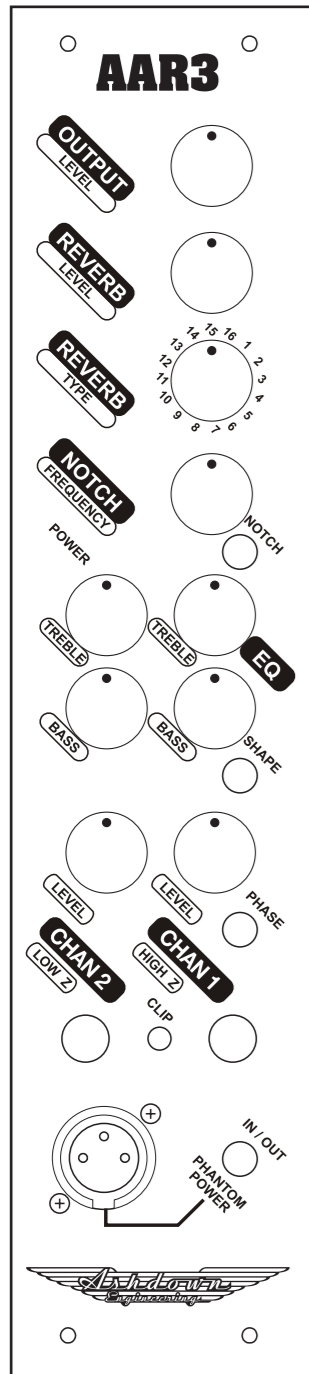
EQ – TREBLE & BASS

These controls can boost or cut the amount of Treble and Bass of either Channel 1 or Channel 2. In their centre position (12 o'clock) they have no effect i.e. the EQ is nominally flat.

NOTCH FREQUENCY

The AAR3 has a Notch filter applied to Channel 1. This can be switched in and adjusted to eliminate 'body resonance' feedback of the instrument at higher playing levels. Adjust the Notch Frequency until the body resonance reduces, this will be the optimum position for that particular instrument. This Notch has a fixed 'Q' that has been optimised for acoustic guitar. What this actually does is to attenuate a narrow band of frequencies at the selected Notch Frequency; this in turn reduces the amplification at that frequency. Therefore if this selected frequency is coincident with the natural resonance frequency of the body of the instrument, body resonance feedback will be eliminated. This control should be used in conjunction with the Phase switch for optimum results.

Front Panel Facilities (continued)



DIGITAL REVERB

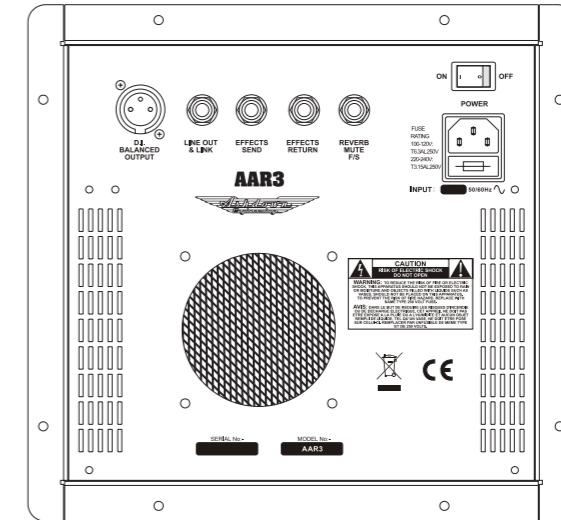
Digital Reverb can be added to the sound of the acoustic instrument to make it more vibrant and alive. This simulates the sound of the instrument being played in various acoustic environments. The level of Reverb to direct sound can be adjusted using the Reverb Level control. A Reverb Type rotary switch is provided to select between 16 Hall, Plate, Spring and Tape type reverbs of various decay lengths.

This reverb effect is situated after the Effects Return socket and as such can be added to other effects connected via these sockets. When activated the reverb is added to both channel 1 and 2. A Mute footswitch socket is provided on the rear panel allowing the reverb to be muted as and when required.

OUTPUT LEVEL

The Output Level control sets the desired playing level/volume of the amplifier.

Rear Panel Facilities



D.I. BALANCED OUTPUT

A Post EQ balanced D.I. signal is provided on an XLR socket.

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 (D.I.) into a PA system or for recording. This must ONLY be used connected to a Balanced Microphone input; it is not intended for any other type of connection.

LINE OUT & LINK

This jack socket output can be used as a Line Output signal for connection to further amplifiers and speakers or for connection to a Tuner.

This socket may also be used to 'Link' together 2 x Ashdown Acoustic Radiators with a single jack to jack cable in a connection where both pre-amps drive both output stages.

This can be useful where more than one musicians are playing together, as two AAR3s can be simply 'Linked' together with both amplifiers reproducing the sound of both performers like a small PA system.

EFFECTS SEND & RETURN

A serial Effects loop is provided at a nominal level of 0dB for connection to external effects units.

The Effects Send jack socket can also be used as a line out socket if required as the signal through the amplifier is only broken when a jack plug is inserted into the Effects Return socket.

REVERB MUTE F/S

A remote footswitch can be plugged into the Reverb Mute footswitch socket allowing the Reverb signal to be muted as and when required.

With no footswitch plugged into this socket the Reverb defaults to ON all the time.

FUSED MAINS INLET SOCKET

This is for connection to your countries mains supply using the appropriate mains cable supplied.

Always use a mains outlet that has an earth or ground connection for safety. Never remove or replace the plug on the supplied cable.

Always replace the fuse with the same type and rating as stipulated on the rear panel adjacent to the mains inlet socket.

POWER SWITCH

This is for turning the mains power to the amplifier ON/OFF. When the power is ON the front panel Power LED will light.

COOLING FAN

The cooling fan will only operate when the output stage becomes too hot. Never block the fan grill or the vents either side of it as this can cause the output stage to overheat and your amplifier fail.

Specifications

INPUTS

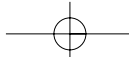
Channel 1	Impedance 3.9M Ohms	Input range 150mV to 20V p-p
Channel 2	Impedance 600 Ohms	Level -20dB to 0dBu
XLR & Jack	Balanced	
Effects Return	Impedance 47k Ohms	Level 0dBu

OUTPUTS

Line Out	Impedance 4.7k Ohms	Level 0dBu
Effects Send	Impedance 10k Ohms	Level 0dBu
D.I.	Impedance 600 Ohms	Level -20dBu

GENERAL SPECIFICATION

Bass & Treble	+/- 15dB @ 100Hz & 10kHz
Frequency Response	-3dB @ 30Hz & 22kHz
Signal to noise ratio	<0.8% THD
Notch	Frequency 70 to 350Hz 'Q' = 5
Output Power	350 Watts RMS Bi-Amped Digital



Notes

