Signature Series

Maximum Resilience Broadcast Audio

ADA2:6

Analogue Distribution Amplifier

2 in 6 out (Stereo) or 1 in 12 out (Mono)

User Guide

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Glensound
Keeps Working

Glensound Electronics Ltd

Thank you for choosing a new Glensound product.

Information contained in this manual is subject to change without notice, if in doubt please contact us for the latest product information.

If you need any help with the product then we can be contacted at:

Glensound Electronics Ltd
1 – 6 Brooks Place
Maidstone
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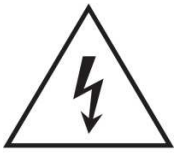
General enquires: office@glensound.co.uk

Technical enquires: techinfo@glensound.co.uk

Sales enquires: sales@glensound.co.uk

IMPORTANT SAFETY INSTRUCTIONS

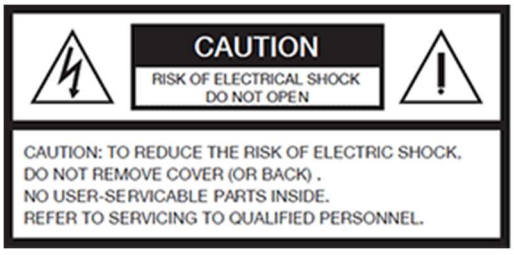


This symbol is intended to warn that dangerous voltages within the product are present and constitute a risk of electric shock.

This symbol is intended to highlight that there are important operating & maintenance instructions in the literature accompanying this unit.

1) Read these instructions
2) Keep these instructions
3) Heed all warnings
4) Follow all instructions
5) Do not use this apparatus near water
6) Clean only with a dry cloth
7) Do not block any ventilation openings. Install in accordance with manufacturer's instructions
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat
9) Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has 2 blades with one wider than the other. A grounding type plug has 2 blades and third grounding prong. The wider blade or the 3rd prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet
10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus
11) Only use attachments/ accessories specified/ supplied by the manufacturer

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip over
13) Unplug tis apparatus during lightning storms or when unused for long periods of time
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped
15) Do not attempt to modify this product. Doing so could result in personal injury and/ or product failure



IMPORTANT: MAINS PLUG WIRING INSTRUCTIONS

This Signature unit is supplied with a moulded mains plug fitted to the AC mains lead.

Mains wiring colours/ connections:

The Green/ Yellow or Green wire must be connected to the terminal in the plug marked 'E' or with the Earth Symbol.

The Blue or Black wire must be connected to the terminal in the plug marked 'N' (Neutral).

The Red or Brown wire must be connected to the terminal in the plug marked 'L' (Live).

THIS UNIT MUST BE EARTHED

THIS UNIT IS FITTED WITH AN INTERNAL MAINS FUSE.

The fuse is located internally between the Live terminal of the IEC plug and the Live input of the power supply. The fuse should only be changed by a qualified service engineer. If replacing the fuse care should be taken to fit a correctly rated replacement. The fuse rating can be found in the technical specifications page of this handbook.

CE

This equipment manufactured by Glensound Electronics Ltd of Brooks Place Maidstone Kent ME14 1HE is CE marked and conforms to:

Low Voltage Directive: EN60065

Emissions: EN55103.1

Immunity: EN55103.2

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT REGULATIONS 2006 (WEEE)

Glensound Electronics Ltd is registered for business to business sales of WEEE in the UK our registration number is:

WEE/JJ0074UR

RoHS2 DIRECTIVE

EC directive 2011/65/EU restricts the use of the hazardous substances listed below in electrical and electronic equipment.

This product conforms to the above directive and for this purposes, the maximum concentration values of the restricted substances by weight in homogenous materials are:

Lead	0.1%
Mercury	0.1%
Hexavalent Chromium	0.1%
Polybrominated Biphenyls	0.1%
Polybrominated Diphenyl Ethers	0.1%
Cadmium	0.01%

PRODUCT WARRANTY:

All equipment is fully tested before dispatch and carefully designed to provide you with trouble free use for many years.

We have a policy of supporting products for as long as possible and guarantee to be able to support your product for a minimum of 10 years.

For a period of one year after the goods have been despatched the Company will guarantee the goods against any defect developing after proper use providing such defects arise solely from faulty materials or workmanship and that the Customer shall return the goods to the Company's works or their local dealer.

All non-wear parts are guaranteed for 2 years after despatch and any defect developing after proper use from faulty materials or workmanship will be repaired under this warranty providing the Customer returns the goods to the Company's works or their local dealer.

ADA2:6 Analogue Distribution Amlifier

Handbook Contents

Issue 1,

Description Page No.

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OVERVIEW

The Glensound Signature Series ADA2:6 is a professional audio distribution amplifier. It is manufactured using high quality components and low noise audio circuits to provide many years of trouble free use.

Although traditionally a broadcast manufacturer, Glensound's products are equally at home in professional and high end home studios, industrial installations and live pro sound environments. The ADA2:6 can therefore be used in a number of applications.

The ADA2:6 features two individual balanced audio inputs on Neutrik XLRs. These inputs are fed via preset gain controls (providing -10 to +15 dB of gain/ loss) to 12 individual output amplifiers each fully isolated from each other.

It is possible to connect the balanced audio inputs & outputs to domestic style unbalanced audio circuits and the preset gain controls provide sufficient input level adjustment to allow this.

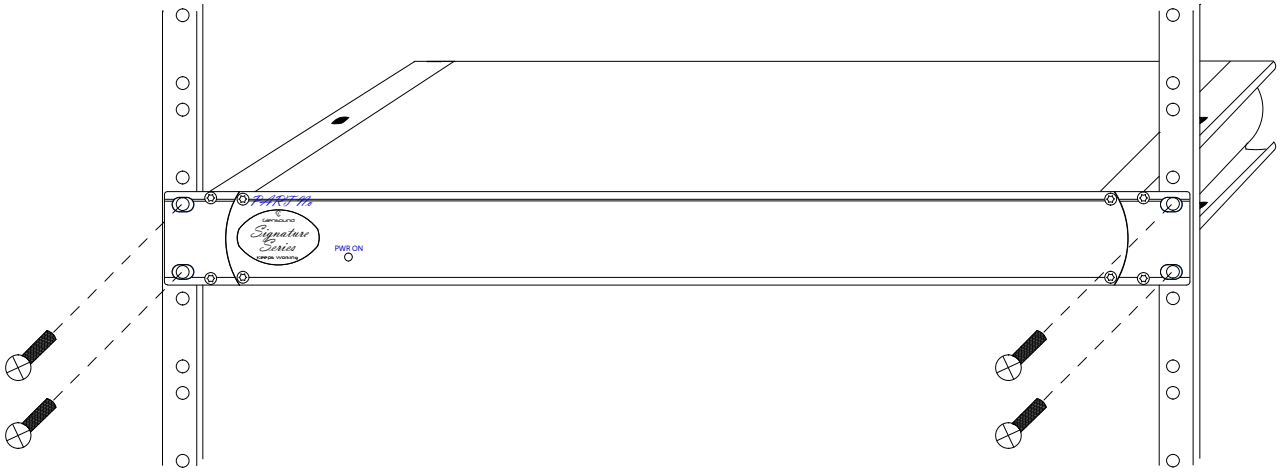
The unit is able to operate as a 2 into 6 stereo distribution amplifier or a 1 into 12 mono distribution amplifier. A front panel toggle switch selects between these 2 modes.

The ADA2:6 is powered from an internal switch mode mains power supply fed from a filtered IEC mains plug suitable for use Worldwide. It has an internal fuse for safety. The unit can also alternatively be powered from an external +/-12V DC power source (such as the Signature Series PS1). If both mains and external DC power sources are present then, if one power source were to fail the unit would continue to work seemlessly from the other source.

PHYSICAL INSTALLATION

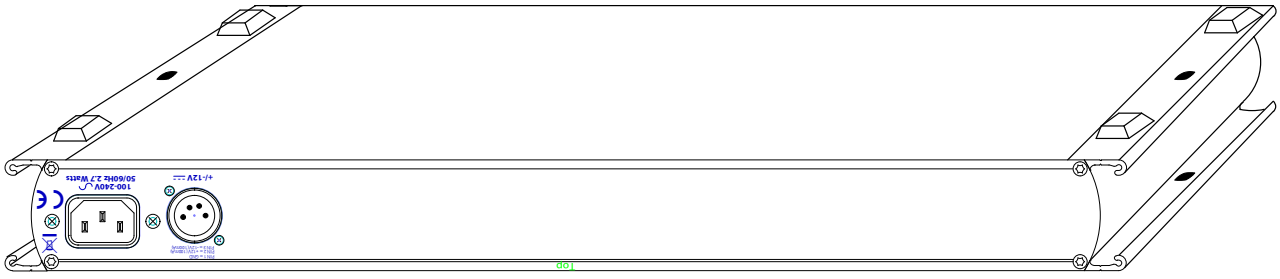
The Glensound Signature Series have been designed to be highly versatile for installation and can be installed in 19" racks with either their front or rear panels facing the front of the rack. They can also be mounted underneath desks or work tops and can be either permananetly mounted or stood (using the supplied feet) on top of desks or worktops.

INSTALLING SIGNATURE SERIES IN A 19" RACK



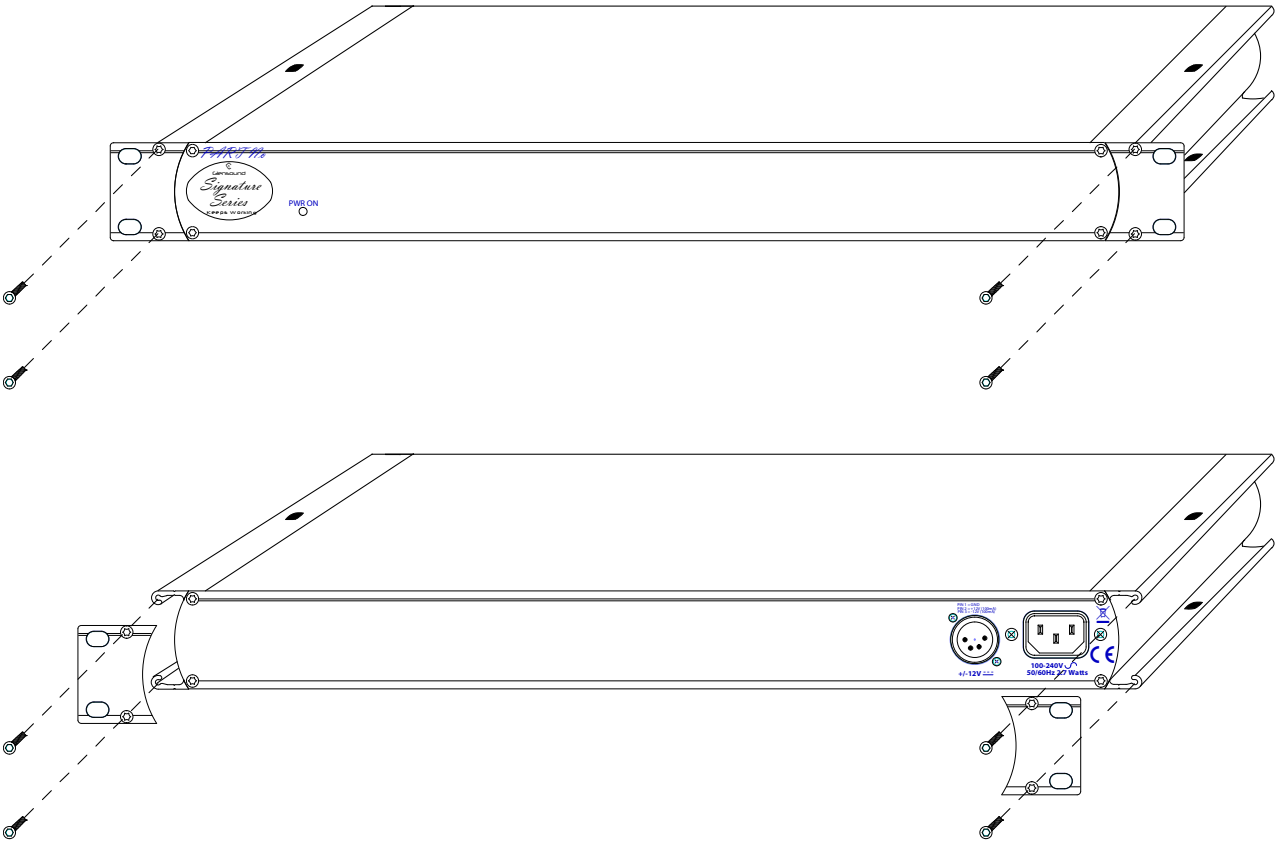
Firmly hold the signature subrack within the 19" rack and locate in 1RU of space. Use the supplied 6mm rack screws to securly attach the unit to the rack.

INSTALLING ADHSIVE FEET FOR NON PERMANENT TABLE TOP MOUNTING



Remove the front rack ears (if they are not required), turn the unit upside down and attach the supplied 4 sticky feet as per the above drawing.

SWAPPING RACK EARS TO ALLOW THE REAR TO BE INSTALLED AT THE FRONT OF A RACK

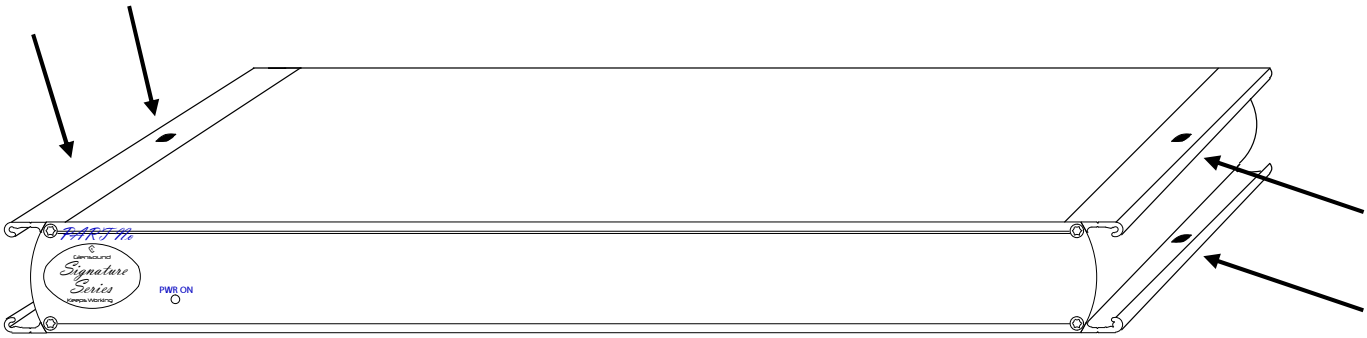


First remove the 4 silver button head screws that fix the rack ears onto the front of the unit as shown in the top picture above.

Remove the rack ears and turn the unit around for access to its back panel.

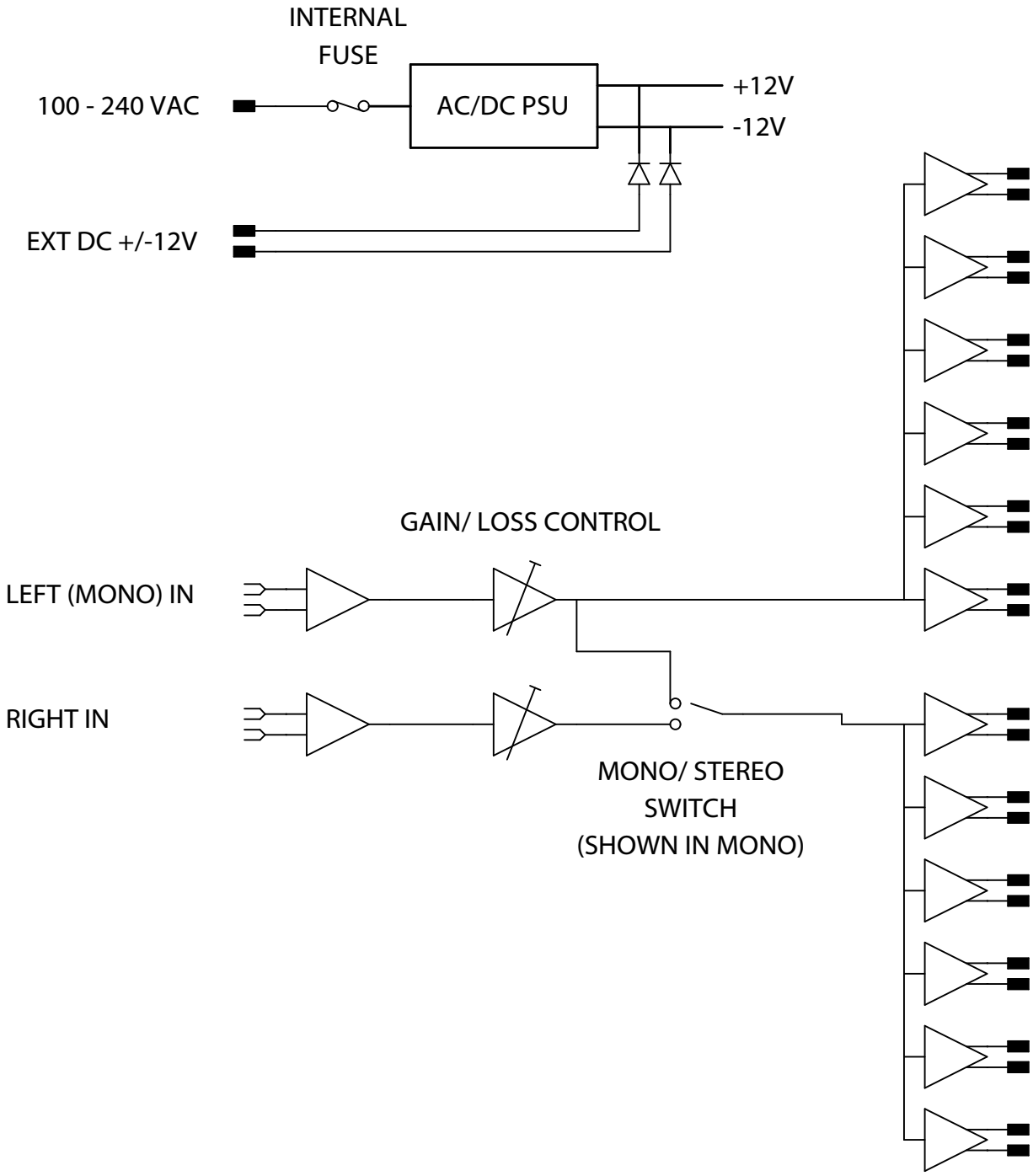
Re-fit the 2 rack ears using the same 4 silver button head screws that were removed from the front as per the bottom picture above.

USING THE MOUNTING HOLES FOR PERMANENTLY ATTACHING THE UNIT ABOVE OR BELOW A WORKTOP/ DESK



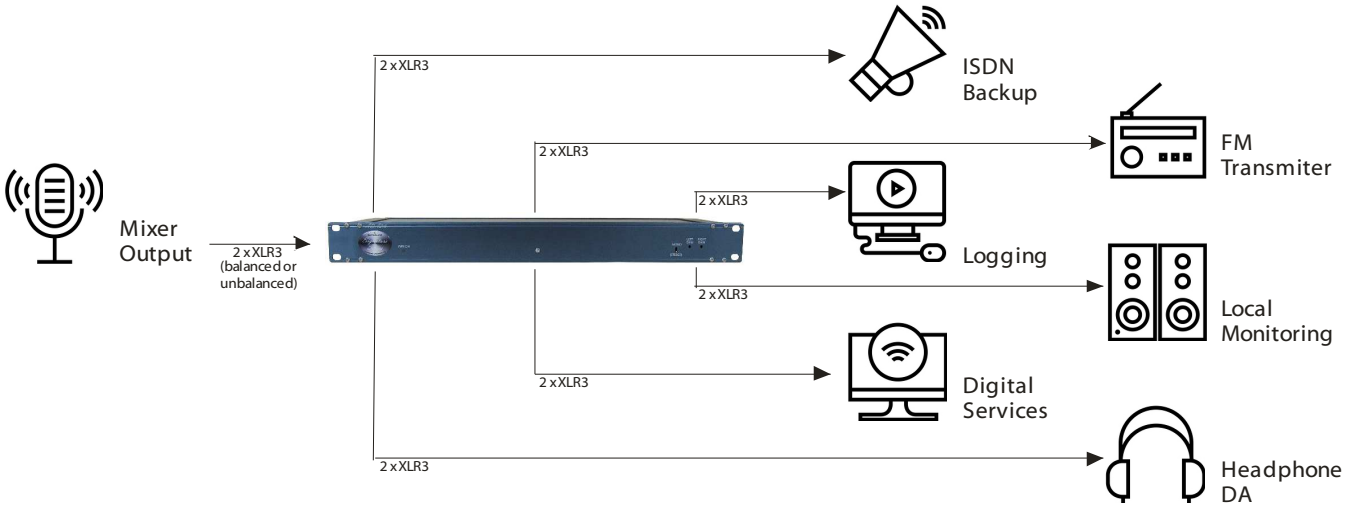
Use either the top or bottom mounting holes as indicated above to use suitable screws to attach the signature unit to a worktop or bench. **PLEASE ENSURE THAT YOU USE SUITABLE FIXINGS**

AUDIO BLOCK DIAGRAM



EXAMPLES OF USE

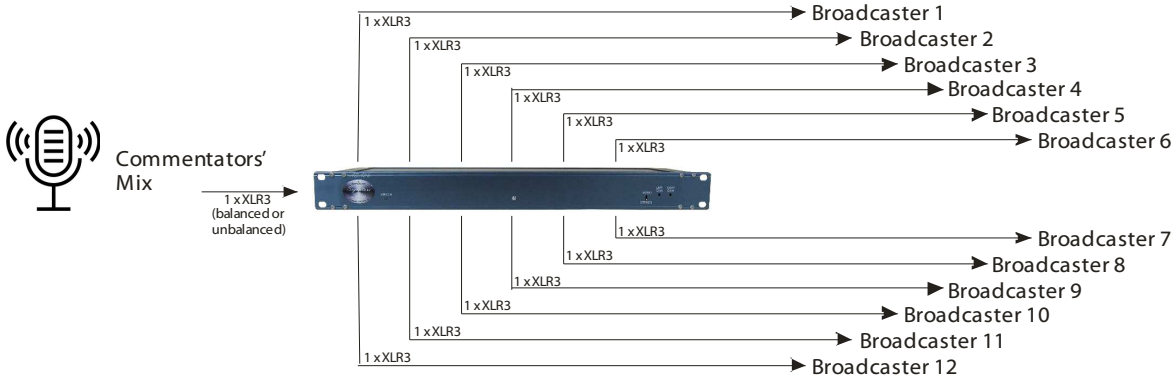
1. Radio Station CTA



The main stereo programme audio from a radio station needs to be distributed across multiple platforms. The output from the desk or automation system no longer just heads off to the transmitter. The audio must be distributed across all of the relevant services that require a connection of the original programme audio.

In this example, the Signature ADA 2:6 provides 6 stereo outputs of the main programme audio. One output connects to the transmitter as the main FM broadcast feed. As multiple guest headphones are required in the studio, another output connects to a separate headphone distribution amplifier. This station also broadcasts online, so another output connects to a PC to become the internet broadcast stream. Local monitoring is required, so one feed goes to the local monitoring system. The transmitter B chain is on ISDN, so one output goes to an ISDN codec. And the final output connects to another PC that manages all of the stations logging requirements.

2. Commentary Feed @ IBC



A single channel mono feed is connected to the Signature ADA 2:6. This could be the master programme mix output from a host commentary system at a sports stadium. This needs to be distributed to all the relevant broadcasters who want to take the host commentary audio. Twelve outputs from the ADA 2:6 are available, which all contain the original audio, and are available to distribute to all of the relevant 12 broadcasters.

USER CONTROLS

1. Gain/ Loss Controls

The front panel preset gain controls are recessed to prevent accidental usage. A small screwdriver is required to adjust the controls.

The gain/ loss controls adjust a gain stage amplifier after the input amplifiers but before the output amplifiers. There are 2 controls one each for the 2 inputs (Left & Right).

To turn the input gain down (i.e. lower the overall output level) rotate the preset pot anti-clockwise. To turn the input gain up (i.e. increase the overall output level) rotate the preset pot clockwise.

These gain controls are factory set for unity gain (i.e. 0dB input on the rear produces 0dB outputs). The overall gain / loss available is +15dB of gain and -10dB of loss. Therefore the unit will easily accommodate domestic unbalanced levels.

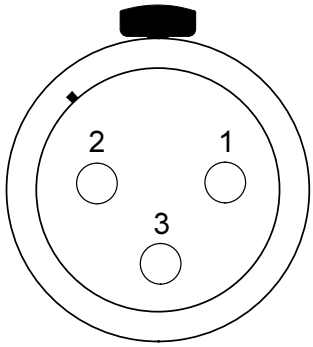
2. Mono/ Stereo Switch

The front panel Mono/ Stereo toggle switch is used to set the unit between 2 stereo inputs & 6 stereo outputs; or 1 mono input & 12 mono outputs.

When the switch is in the 'MONO' position the left input only is routed to all 12 outputs. When the switch is in the 'STEREO' position the left input is routed to the 6 left outputs and the right input is routed to the 6 right outputs.

WIRING INFORMATION

1. Standard Pin Outs



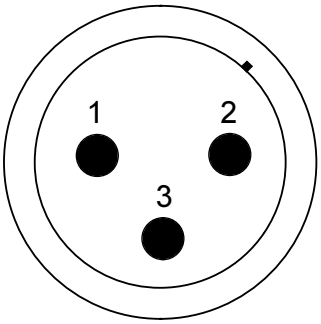
XLR SOCKET (FEMALE)

STANDARD XLR AUDIO PINOUTS:

1: Ground/ Earth

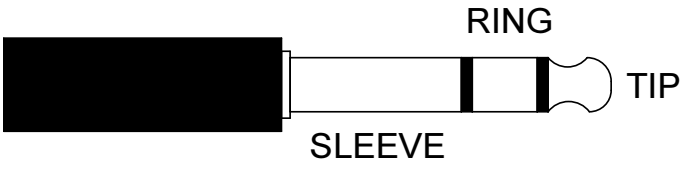
2: INPHASE/ POSITIVE/ MIC +

3: MATE/ NEGATIVE/ MIC -



XLR PLUG (MALE)

STANDARD HEADPHONE WIRING:



TIP: A/ LEFT Ear

RING: B/ RIGHT Ear

SLEEVE: Common/ Earth

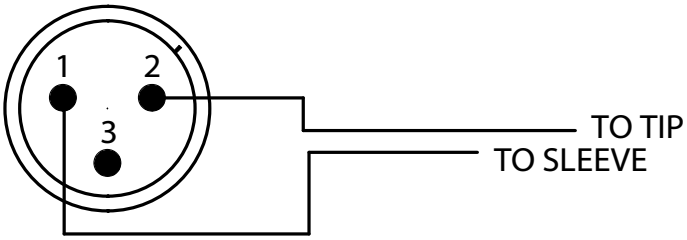
HEADPHONE WIRING NOTE:

The *Signature Series* range of products feature sophisticated headphone amplifiers whose stereo outputs can be connected directly to mono headphone jacks without damaging the headphones internal amplifiers.

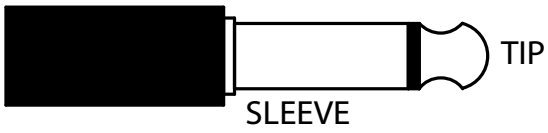
2. Wiring to unbalanced devices

The input & output circuits of the *Signature Series* can be connected to unbalanced (domestic style) devices. The wiring diagrams below show a mono jack plug as the unbalanced end of the cable but this of course could easily be a different type of connector such as an RCA Phono or 'D' type connector.

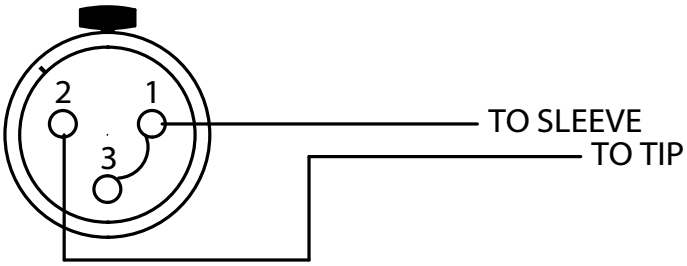
BALANCED OUTPUT
ON SIGNATURE UNIT



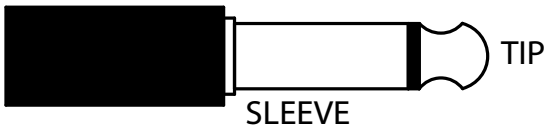
UNBALANCED INPUT
OF EXTERNAL DEVICE



BALANCED INPUT
ON SIGNATURE UNIT



UNBALANCED OUTPUT
OF EXTERNAL DEVICE



TECHNICAL SPECIFICATION

AUDIO

Frequency Response
<-0.5dB 20Hz to 20kHz

Gain Range
-10dB to +15dB

Maximum Input Level
>+28dB

Maximum Output Level
+24dBu

Input Impedance
>30k Ohm

Output Impedance
=<50 Ohms

Distortion
0.013% THD @ 100Hz, 1kHz & 10kHz
Reference to +8dBu output

Noise
-89dB @ line up unweighted
RMS (22Hz to 22kHz)

Common Mode Rejection
Circa -63dB @ lineup

Output Type
Electronically balanced (can be wired unbalanced) on Neutrik 3 pin XLR plug

Input Type
Electronically balanced (can be wired Unbalanced) on Neutrik 3 pin XLR socket

POWER

Mains Input
Filtered IEC, 100 to 240VAC
47 - 63Hz

AC Consumption
2.8 Watts @ 230VAC

DC Input
4 Pin Neutrik XLR plug +/- 12V

Internal Mains Fuse
20mm 500mAH Anti Surge

PHYSICAL

Size
445 x 123 x 44mm (LxDxH) no rack ears
482mm 19"(1RU) with rack ears

Weight
1.16kg

Mechanics
All aluminium construction, anodized and laser etched

Shipping Carton
Rugged export quality cardboard carton
610 x 420 x 130mm LxDxH

Shipping Weight
2.6kg