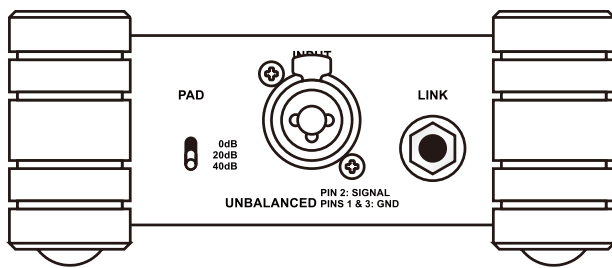


OSA-4

ACTIVE DI BOX/LINE BALANCER User Manual



Input Connectors and Switches

Input 1/4" Jack:

Unbalanced, Tip hot (+ve), sleeve ground;

Main input for instruments

Impedance (Pad setting):

1 MOhm (0dB)

47kOhm (20dB)

47kOhm (40dB)

3-pin XLR Socket:

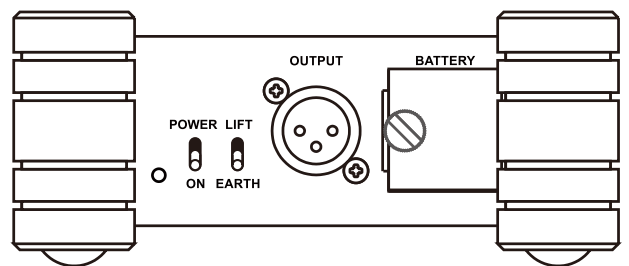
Unbalanced, parallel link with main 1/4" jack socket.

Pin 2 hot, pins 1 and 3 ground.

Link 1/4" jack:

Output, parallel wired with main 1/4" input, or fed via a buffer amplifier from main input.

Tip hot, sleeve ground.



Output Connector and Switches

3-pin XLR Output:

Balanced (via transformer)

Pin 2 Hot (+ve)

Pin 3 Cold (-ve)

Pin 1 Ground

Ground Lift Switch:

By switching to the LIFT position, the internal connection to the output pin 1 is removed, isolating the OSA-4 grounding system from that of the rest of the system.

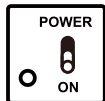
FACILITIES & FUNCTIONS

■ The Link Connector



The 1/4" LINK socket carries a parallel-wired direct feed from the input, an internal link passes this signal through an active isolating buffer amplifier. This link must be changed by professional technicians only.

■ The On/Off Switch



The On/Off switch can be used for both phantom power and battery. To avoid battery drain when the unit is not in use, make sure that this switch is set to the upper OFF position. An internal link allows phantom power to activate the OSA-4 disregarding whether the switch setting is On/Off This link must be changed by professional technicians only.

■ Phantom Power

The OSA-4 can work reliably on a wide range of phantom power voltages, with the typical supply by modern consoles which is +48 volts. The OSA-4 accepts voltage supplies from +48 volts down to +20 volts without loss in performance.

The power LED lit continuously is a sign that the OSA-4 is receiving good phantom power. In case the supply fails for any reason, the OSA-4 will switch over automatically to run from the internal battery. Under this condition, the power LED flashes approximately every 2 seconds.

■ Installing a Battery

To install or replace the internal battery, first undo the knurled screw on the battery compartment - DO NOT undo the flush panel screws The battery covers should now fold back towards the edge of the unit, revealing the compartment. Attach the flying lead battery terminals to your battery, and slide the battery into the compartment, with the connector towards the outside of the OSA-4. For best reliability and long life, we recommend you use only high quality alkaline batteries in your OSA-4.

■ Cable Management

To keep cables tidy on stage and in the studio, both input and output cables can be arranged to run in the same direction by bringing one cable back under the OSA-4.

TYPICAL APPLICATIONS

The most common use of OSA-4 is with guitar pick-ups or keyboards. The optimal setting for this is most likely with the pad switch set to 0dB, although with some high-output pick-ups the performance of the OSA-4 may be improved if the pad switch is set to 20dB to prevent possible clipping of the input. The instrument is connected to the 1/4" jack socket, and a parallel feed taken from the other jack socket to the instruments' own amplifier.

Interfacing additional equipment such as DJ mixers with the house console and PA may cause level and connector difficulties. Connect the DJ mixer to either the jack or XLR input of the OSA-4 (this will depend on the interface cables to hand which match the output of the DJ mixer) and then the OSA-4's output XLR to the house console.

When 2 or 3 keyboards are used by a single performer, it is possible to reduce the number of OSA-4s needed if a mixer/amplifier is used by the performer for his personal monitoring. A single OSA-4 can be fed either from a line-level output from the head (pad set to 20dB) or from the amplifier power output (speaker output) (pad set to 40dB).

Using the amplifier's output means that the signal being fed to the console is post any effects units and the power stage of the amplifier, and so will be more representative of the signal being fed to the speaker, including any deliberately introduced overdrive etc. Use the 40dB setting for this application.

SPECIFICATIONS

Inputs:	1/4" mono jack connector (tip hot, sleeve ground) or 3-pin XLR connector (pin 2 hot), unbalanced. Parallel link output 1/4" jack connector for feeding to other equipment, direct or via Buffer Amplifier.		
Attenuator:	at 0dB	at 20dB	at 40dB
Impedance:	1 Mohm	47 kOhm	47 kOhm
Maximum Input Level before Clip:	+9dBu	+29dBu	+49dBu
Output:	3-pin XLR connector, transformer balanced output. Will drive lines from 600 Ohm upwards. Maximum output level before clip greater than +9dBu with battery or phantom supply.		
Frequency Response:	30Hz to 20 kHz, +0/-1dB		
Noise:	<-105dBu, unweighted, 22Hz to 22kHz, rms*		
Harmonic Distortion:	Less than 0.005% at 1kHz, 0dBu output.		
Power:			
Phantom Power Requirements:	+20 Volts DC to +48 Volts DC.		
Current Drain:	Phantom Power, less than 8mA. Battery, less than 2mA.		
Dimensions:	151mm x 135mm x 64mm (5.9" x 5.3" x 2.5")		
Weight:	650gm (22oz) excluding battery.		

*Noise measured relative to maximum output

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