

Public Address

A 4090B 500 Watt Power Amplifier

Thermally cued forced fan cooled power amplifier



Congratulations on purchasing a REDBACK Phase 4 Public Address Amplifier. Engineered and manufactured to high standards this unit will provide you with many trouble free years of use.

FEATURES:

- *Latest design and technology*
- *Very low noise and distortion*
- *70V, 100V and 4-16 Ohm outputs*
- *240V AC or 24V DC operation*
- *Rack mountable*
- *Thermal overload protection*
- *Thermally cued forced fan cooling*
- *Automatic Gain Control (AGC) Output Limited*

Audio Connections

The audio Line Input is via the 3 pin XLR socket on the rear panel. This is a 320mV line level balanced signal which is normally fed from a mixer panel. Pin out details are printed on the rear of the amplifier.

A balanced, Line Out XLR plug is also available for passing the audio signal on to more amplifiers if required.

Speaker Connections

Speakers with a total impedance of 4 to 16 ohms, or speakers fitted with a line transformer may be connected.

Always ensure that the total load of the fitted speakers does not exceed the rated output of the amplifier, ie 500 watts. Otherwise damage may result.

Always be especially careful to avoid any short circuits and connections to the wrong terminals.

Power Supply

Ensure power is switched off at the front panel of the amplifier. Connect either mains power to the IEC socket with the supplied lead, or 24V DC to the binding post connections. As high currents may be drawn when operating from a 24V DC power supply, confirm the capacity of the DC power supply used.

Operation

Confirm all connections are correct. Turn volume on the rear panel of amplifier down. Switch on the power at the front panel. Slowly increase the volume on the amplifier rear to about half way. Adjust the volume output to a suitable audio level.

The fault LED on the front panel indicates the amplifier has shutdown due to excessive heat build-up and/or excessive load on the speaker outputs, the AGC LED indicates when AGC is in operation and the Signal LED is provided to indicate when an input signal is present.

Adequate ventilation is required for the amplifier to work within its rated limit. When the cooling fan operates, it draws cool air from the vents at the front of the unit and expels it out of the sides. Ensure the vents and rear fan are free of obstructions at all times. We recommend that a 1U Vented panel be placed between amplifiers. This is to aid air flow.

TROUBLE SHOOTING

If the REDBACK Phase 4 amplifier fails to deliver the rated performance, check the following:

No Power, No Lights

Make sure amplifier power switch is on. Make sure mains power switch is on at the wall. Check the mains and DC fuse. Replace with only the correct type and rating.

Distorted Output

Check that the speaker type is correct for the output that you are using (ie. 4-16Ω, 70V or 100V line). Check for any short circuits on the speaker line.

Very Low Output Volume

Make sure that the input is the correct level (check for shorted connectors). Check for any short circuits on the speaker line.

Continually Blows Fuses

Make sure that the speaker line is not shorted. Check speaker types, ratings and if on correct output.

Amplifier Keeps on Cutting In & Out

Make sure that there is adequate ventilation around the amplifier. Check the vent slots on the front are not covered or blocked and the fan on the rear is functioning correctly. Check also speaker types, ratings and for any short circuits on the speaker line.

SPECIFICATIONS

POWER OUTPUT.....500 Watts RMS
DISTORTION:.....Typically < 0.3%, @ 1kHz
FREQUENCY RESPONSE:.....50Hz - 15kHz, -3dB
SPEAKER OUTPUTS:.....100V, 70V, or 4 - 16Ω
SENSITIVITY:.....320mV balanced
S.N.R.:(AGC LIMITING BY-PASSED).....> 90 dB
LINE OUTPUT:.....600Ω balanced, 0dBV

OUTPUT CONNECTORS

Speakers:.....Screw Terminals
Line Out:.....3 pin XLR

INPUT CONNECTORS

24V DC Power:.....Binding Posts
240V AC Power:.....IEC Chassis Socket

Master:.....Volume (on rear panel)
Power:.....On/Off Switch

INDICATORS:

Power on LED and Fault LED
LED Bargraph VU Meter
LED Signal Present
LED AGC

POWER SUPPLY:.....240V AC or 24V DC (nominal)

PROTECTION10A AC Fuse, 2 x 20A DC Fuse

DIMENSIONS≈ 485W x 405D x 88H

WEIGHT≈ 20kg

COLOUR:.....Black

*Specifications Subject to Change Without Notice

CONTROLS

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