



**A 4024**



**A 4026**



## Operating Manual

**A 4024** 30W Desk Mount Amplifier

**A 4026** 30W Rack Mount Amplifier

Redback® Proudly Made In Australia

Distributed by Altronic Distributors Pty. Ltd.  
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### IMPORTANT NOTE:

Please read these instructions carefully from front to back prior to installation.  
They include important setup instructions.  
Failure to follow these instructions may prevent the amplifier from working as designed.

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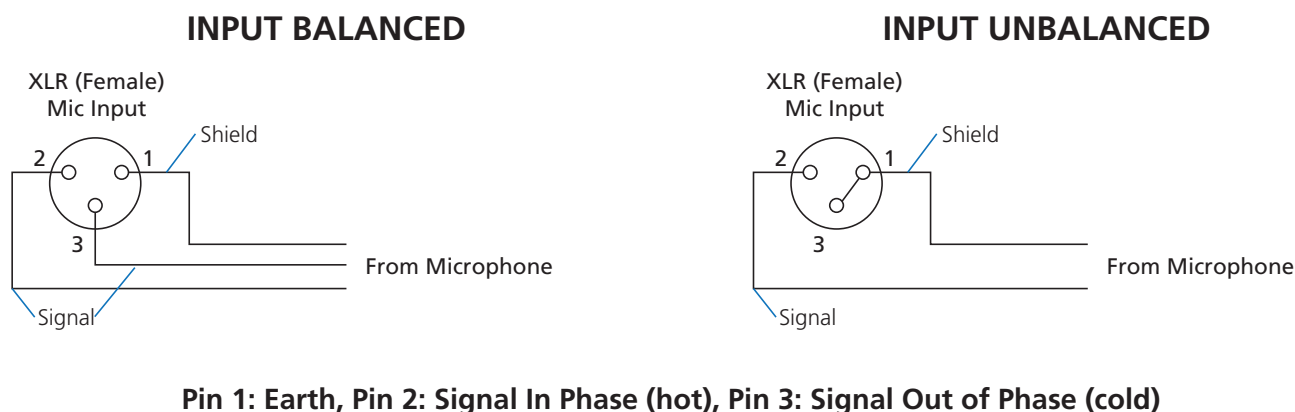
## 1.0 FEATURES

- 3 Inputs suitable for either microphone or line level, or for use as microphone and line level coupled together.
- Bass and treble controls (on both microphone and auxiliary inputs).
- Full 30W RMS output (100V and 4 -16 $\Omega$  outputs).
- VOX muting.
- Internationally accepted IEC mains socket (240V AC operation only).
- Stereo RCA sockets for all auxiliary inputs (configured to mono internally allowing standard stereo equipment to be directly connected).
- Mute trigger
- Fully balanced microphone inputs.
- Tape output, suitable for recording, or for connection to a second amplifier.
- Ten year warranty.

## 2.0 CONNECTING UP THE UNIT

### Microphone Inputs

There are three mic inputs on the rear of the amplifier. These are 3 pin XLR female connectors which are wired to a microphone as shown in figure 1.



**Fig 1. XLR Microphone Connections.**

### Microphone Connections

Connector Type: .....XLR 3Pin Female  
Pin 1: .....Earth  
Pin 2: .....Signal Inphase (hot)  
Pin 3:.....Signal Out of Phase (cold)

### Phantom power

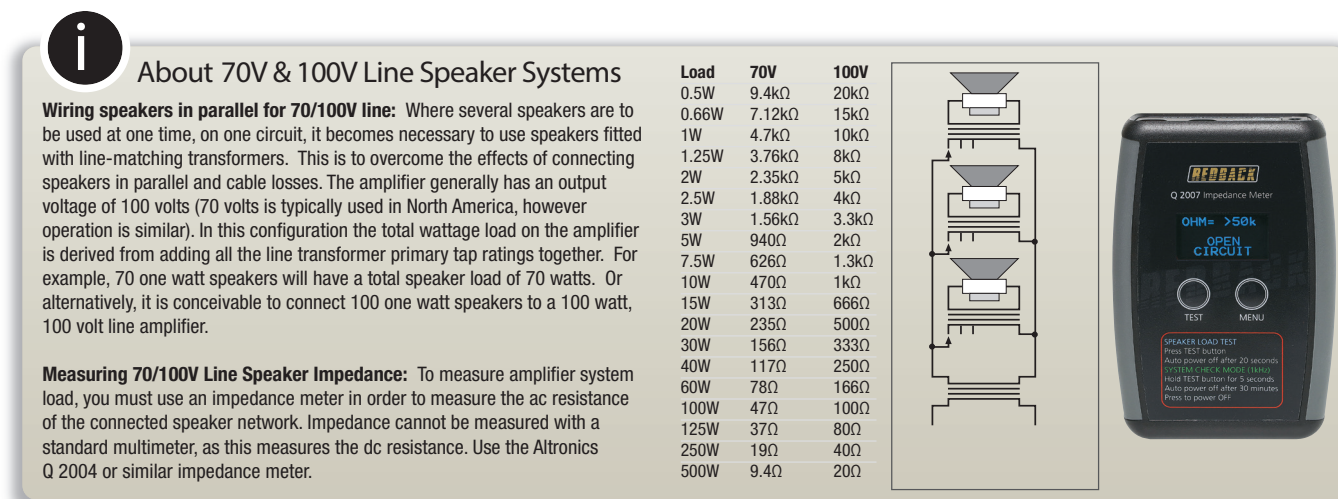
Phantom power (15V DC) is provided on the microphone input XLR connectors. This is always present.

## Speaker Outputs

Screw terminals are provided for both VC (voice coil) and 100V outputs. Minimum impedance when only VC output is used is 8-16Ω @ 30W total load.

A combination of 100V and VC is possible however we do not recommend this. If more than 30W is used then the unit may shut down due to overloading.

Speakers fitted with 100V line transformers may be connected to the 100V output terminals on the rear of the amplifier. Always ensure the total load of the fitted speakers does not exceed the rated output of the amplifier (ie 30 watts for the A 4024/26 amplifier) otherwise damage may result. When fitting speakers with line transformers the impedance of the load cannot be measured using a standard multimeter. An impedance meter such as Altronics Q 2007 is required. Fig 2 lists the impedance at certain loads of speakers fitted with 70V and 100V line transformers. So for a total load of 30 watts using 100V line transformer fitted speakers, the impedance of the speaker load should be 333Ω.



**Fig 2. Speaker Load Impedance Values**

## Tape Out

This is a mono output configured for a stereo lead for direct connection to a stereo source. This is suitable for connection to an auxiliary input on external equipment. This is also suitable for driving 600Ω loads.

## VOX Muting

VOX muting is provided on input one, which, when activated, automatically mutes inputs 2 and 3. VOX can be selected ON or OFF via DIP switch 1 (located on the rear of the amplifier). This is factory set in the OFF position. VOX sensitivity is adjusted via the trimpot on the front of the unit.

## Output Muting

An output mute is provided which will mute the output of the amplifier when the Mute Trigger terminals are closed. The output will remain muted while the contacts are closed. This is ideal for emergency override situations.

## 5.0 OPERATION

Once all inputs and outputs are connected:

- 1 Turn bass and treble to midway point.
- 2 Turn all volume controls to zero.
- 3 Turn power switch on. Power indicator should illuminate.
- 4 Turn on microphone or auxiliary input source and adjust appropriate volume control to desired level.

The microphone and auxiliary for each input are mixed together, e.g. mic 1 and aux 1 are mixed. Both the mic and auxiliary inputs can be run together but note there is only the one volume control for both of these.

# Redback® 30W Public Address Amplifiers

## 6.0 TROUBLE SHOOTING

### NO POWER

(Power LED light does not illuminate)

Check mains fuse. Only replace with M205, 240V AC 0.5A rated fuse.

### DISTORTED OUTPUT

Check that the speaker type is correct for the output that you are using. Check for any short circuits on the speaker line.

### VERY LOW OUTPUT

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 also 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 case are not covered or blocked. Check also speaker types, ratings and for any short circuits on the speaker line.

## 7.0 SPECIFICATIONS (\* Specifications Subject to Change Without Notice)

POWER OUTPUT:.....30 Watts RMS  
T.H.D.: .....typically < 0.5% @ 1kHz  
FREQUENCY RESPONSE:  
Microphone: .....52Hz - 10kHz,  $\pm 3$ dB  
Auxiliary:.....40Hz - 10kHz,  $\pm 3$ dB  
SPEAKER OUTPUTS:.....100V (330 $\Omega$ ) (floating)  
or 8 - 16 $\Omega$  (0V referenced)  
NOISE LEVEL:  
All volume controls min: ..typically 76dB below rated output  
(All inputs display same signal to noise ratio)  
OUTPUT CONNECTORS:  
Speakers:.....Screw Terminals  
Tape Output: .....RCA Stereo Socket  
INPUT SENSITIVITY:  
Mic 1:.....2.6mV Balanced or 3.2mV Unbalanced  
Mic 2:.....2.6mV Balanced  
Mic 3:.....2.6mV Balanced  
Aux 1:.....150mV  
Aux 2:.....150mV  
Aux 3:.....150mV

### INPUT CONNECTORS:

Mics 1-3: ..... 3 pin XLR balanced  
Aux 1-3: ..... RCA Stereo Socket  
Mute Trigger: ..... Euro Connector  
240V AC Power:.....IEC Type Chassis Socket

### CONTROLS:

Input 1 (Mic 1 / Aux 1):.....Volume  
Input 2 (Mic 2 / Aux 2):.....Volume  
Input 3 (Mic 3 / Aux 3):.....Volume  
Bass:..... $\pm 10$ dB @ 100Hz  
Treble: ..... $\pm 13$ dB @ 10kHz  
Power:.....On/Off Switch  
POWER SUPPLY: .....240V AC  
INDICATORS: .....Power on LED  
..... Peak Limit LED  
PROTECTION:.....AC Fuse 0.5A  
.....DC Fuse 2 x 3A (internal)  
DIMENSIONS: .....  
A 4024: ..... $\approx 300$ W x 220D x 80H mm  
A 4026: ..... $\approx 483$ W x 220D x 88H mm  
WEIGHT: ..... A 4024:  $\approx 4.1$ kg  
..... A 4026:  $\approx 5.1$ kg  
COLOUR: ..... Black  
ACCESSORIES:..... IEC Mains Lead