



**A 4036 40 Watt**

**A 4041 60 Watt**

**A 4046 100 Watt**

*Public Address Amplifier*



# OPERATING INSTRUCTIONS

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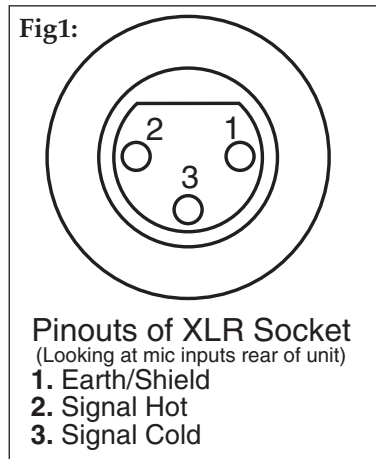
*Proudly Assembled in Australia*

# REDBACK Public Address Amplifiers

Congratulations on purchasing a REDBACK PA Amplifier. This Public Address Amplifier has been engineered and manufactured to a very high standard in Australia.

## Features:

- 4 balanced microphone inputs / 4 aux inputs
- Phantom powering on mic inputs 1-4
- Wide frequency response 50Hz-15kHz,  $\pm 3\text{dB}$
- Very low noise and distortion
- Tape out
- 100V, 70V and 4-16 Ohm outputs. (Note: 70V output not available on A 4036)
- 240V AC or 24V DC operation
- Bass and treble controls
- Evacuation tones via optional A 2073 evac module.
- Remote volume via optional 1K potentiometer.
- Desk or rack mountable
- Thermal overload protection



## OPERATION

Microphones must be connected to the appropriate XLR input. Other “line level” music sources should be connected to the RCA auxiliary inputs, e.g. tape players, CD players, etc. Each auxiliary input has stereo connections, which are converted to mono internally.

### Microphone Phantom Power Option

This facility is available on all microphones. Phantom powering can be turned on or off via internal PCB mounted jumpers. To change the jumper settings, the lid of the amplifier must be removed. (Ensure power is dis-connected before removing the lid). Locate the jumpers (on the circuit board, see fig 2) and select the option as indicated on the circuit board. This option is set off at the factory.

**Tape out:** This is a line level output. Its output is affected by adjusting the volume on any input.

**Vox muting:** Available on inputs 1 and 2. Once activated (see fig 2) input 1 will override all other inputs including the alert/evac input. Input 2 will override inputs 3 & 4. Both mic and aux inputs will activate the vox muting. These are factory set in the OFF position.

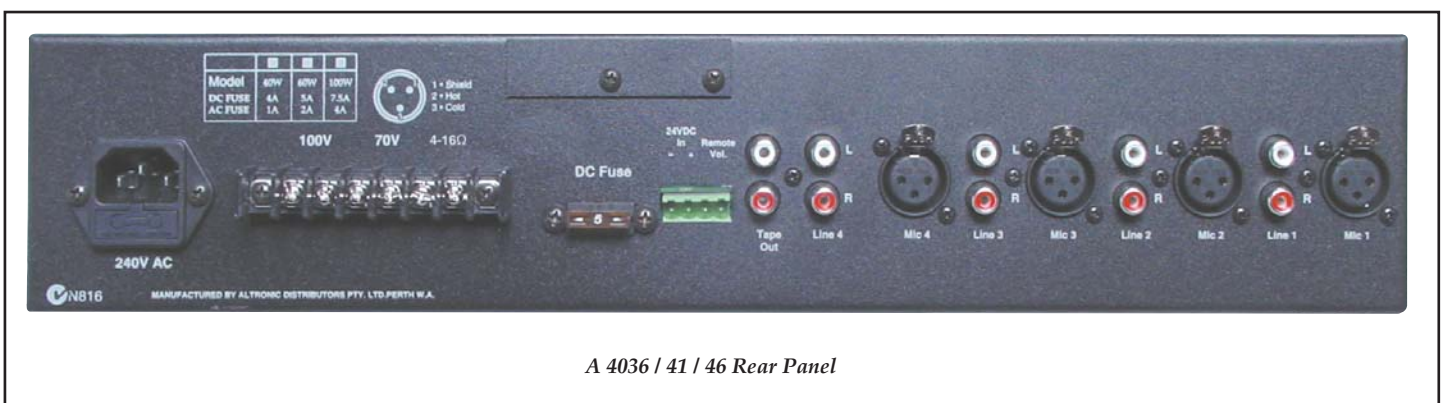
**When installing the amplifier attention must be given to the following points.**

- Make sure that the total speaker load on the amplifier does not exceed its rating (40W A 4036, 60W A 4041, 100W A 4046). Don't connect 8 ohm speakers to the 100V line output, this will severely overload the amplifier.
- Allow ventilation so that the amplifier can “breathe” i.e. don't enclose in a sealed cupboard. Allow air to circulate through the amplifier.

## OPTIONAL EXTRAS

**Alert/Evac option:** Generates chime, alert and evacuation tones. Simply connect the alert/evac module (Altronics P/N: A 2073) to the amplifier internally via IDC cable provided. Refer to fig 2 for connection location. Once activated the A 2073 will mute inputs 2, 3 and 4.

**Remote volume option:** Master volume can be adjusted by a remotely located volume control (Maximum distance 100m). This requires a two wire figure 8 cable and a 1K potentiometer (Altronics P/N: R 2202). This is connected to the two way connector on the rear of the amplifier (fig 4).



A 4036 / 41 / 46 Rear Panel

## TROUBLE SHOOTING

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

### NO POWER, NO LIGHTS

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

### DISTORTED OUTPUT

Check that the speaker type is correct for the output that you are using, ie 8Ω or 100V. 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 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 the speaker types, ratings and for any short circuits on the speaker line.

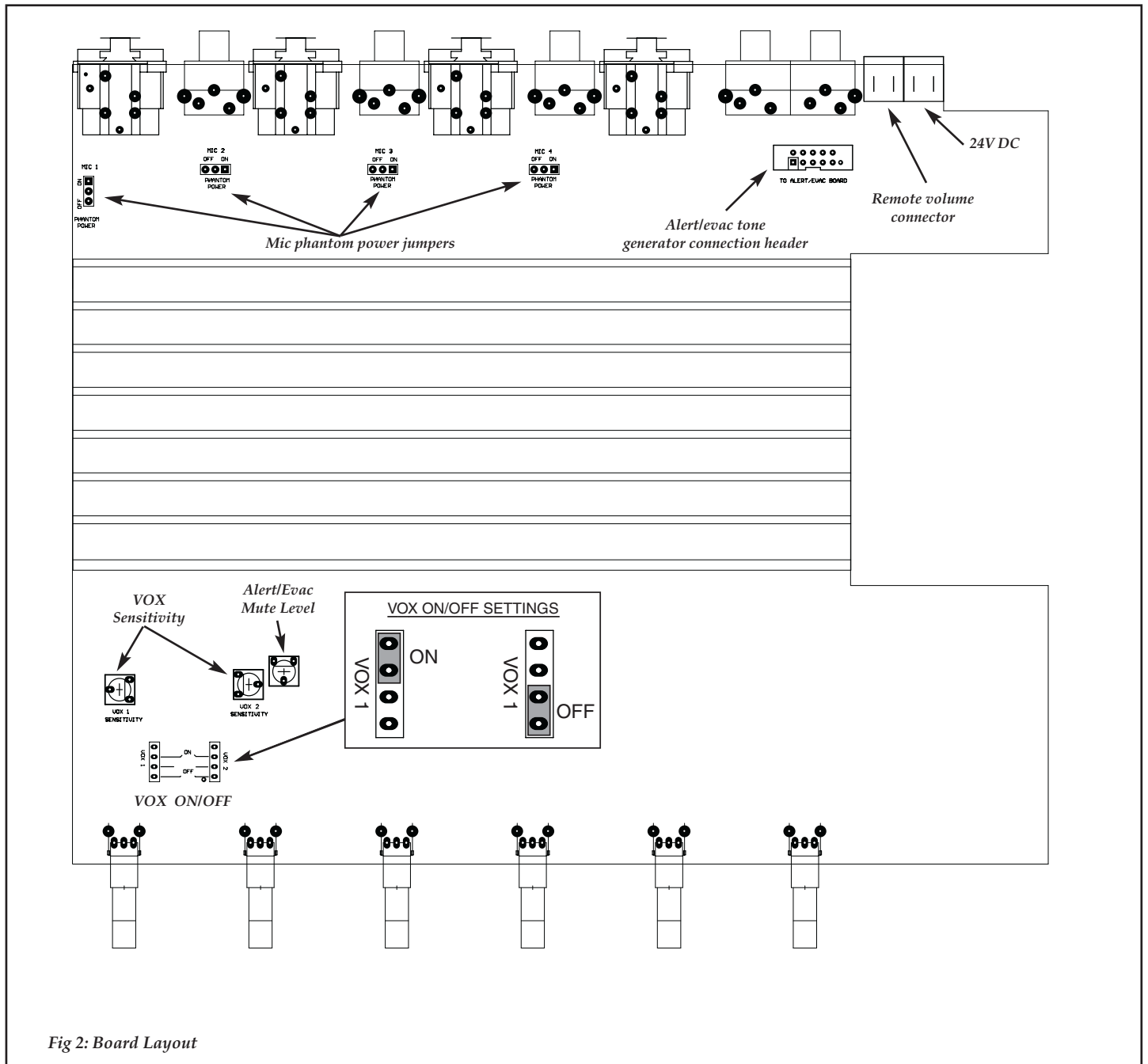


Fig 2: Board Layout

## SPECIFICATIONS

### POWER OUTPUT

A 4036: .....40 watts RMS  
A 4041: .....60 watts RMS  
A 4046: .....100 watts RMS  
Distortion: .....< 0.5% @ 1kHz

### SIGNAL TO NOISE RATIO

Typically 75dB below rated output. All inputs.

### FREQUENCY RESPONSE

Mic inputs: .....50Hz - 10kHz, -3dB  
Aux inputs: .....60Hz - 15kHz, -3dB  
Output line: .....100V, 70V or 4 - 16Ω (note: 70V output not available on A 4036)

### INPUT SENSITIVITY

Mic inputs: .....1.5mV balanced  
Aux inputs: .....410mV

### OUTPUT CONNECTORS

Speakers: .....Screw terminals

### INPUT CONNECTORS

Mic Inputs: .....3 pin XLR balanced  
Aux inputs: .....RCA stereo socket  
Tape Out: .....RCA stereo socket  
24V DC power: .....Screw terminals  
240V AC power: .....IEC power connector  
Remote volume: .....Screw terminals

### CONTROLS

Mic inputs: .....Volume  
Aux inputs: .....Volume  
Bass: .....±10dB @ 100Hz  
Treble: .....±13dB @ 10kHz  
Power: .....On/off switch  
Indicators: .....Power  
Overload  
Power supply: .....240V AC or 24V DC

### PROTECTION

A 4036: .....1A AC fuse and 4A DC fuse  
A 4041: .....2A AC fuse and 5A DC fuse  
A 4046: .....4A AC fuse and 7.5A DC fuse

### WEIGHT/ DIMENSIONS

A 4036: .....≈7.1 kg  
A 4041: .....≈7.4kg  
A 4046: .....≈9kg  
Dimensions: .....≈423W x 225D x 88H mm  
Colour: .....Black

\*Specifications subject to change without notice