

REDBACK A 4017 PA 15W Public Address Amplifier User Manual

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REDBACK A 4017 PA 15W Public Address Amplifier



The A 4017 is a 15 Watt amplifier designed to operate on 12V DC, making it suitable for use in vehicles. It has a Mic input, Aux input and Music input, along with speaker output and a headphone output. The amplifier is internally protected by polyswitches which disconnect the speaker line when over-driven. It also features DIP switches that set the phantom power to the microphone input and adjust the Aux input sensitivity.

Product Usage Instructions

- 1. Ensure the power is switched off at the front panel before connecting power.
- 2. Connect the 12V DC input (Main Supply) to a 12V DC supply with at least 2 amp current capacity. Use the supplied plugpack to connect to the input.
- 3. Connect the speakers with a total impedance of 4-16 ohms to the terminals marked 4-16 on the rear of the amplifier.
- 4. Adjust the input sensitivity of the Aux input using the DIP switches if required.
- 5. Adjust the microphone input/s volume and Aux and Music input's volume using the Mic Volume and Aux Volume controls respectively.
- 6. Use the Music input to connect a portable music player. This input will mix with the Aux input on the rear of the unit and is adjusted via the Aux volume control.
- 7. Use the Power Switch to turn on the unit, which will be indicated by the On Indicator led.

Troubleshooting

If the REDBACK 15W amplifier fails to deliver the rated performance, check the following:

- Ensure power is properly connected and switched on.
- Check that speakers are properly connected and have an impedance between 4-16 ohms.
- Check that input devices are properly connected and volume controls are adjusted appropriately.

OVERVIEW

The redback A 4017 PA Amplifier is super compact and ideally suited to smaller PA System Installations. Designed around the TDA1519C IC it offers virtual "destruction proof" operation even under severe misuse such as over voltage, over temperature, over load and short circuit speaker line conditions. The amplifier is extremely stable even when microphone and speaker cables are run together over long distances. The unit will automatically shutdown when overloaded and will restore to normal operation when the fault is removed

FEATURES

- 15W RMS Output
- 1 balanced XLR and unbalanced jack mic input
- 1 Auxiliary Input
- 4-160 Output
- 12V DC operation
- Headphone Socket
- Selectable 12V DC Phantom Power on Mic Input
- · Music Input on Front Panel
- Selectable Aux Input Sensitivity

· Power Status Indicator

POWER SUPPLY

The amplifier operates on 12V DC, which makes it suitable for use in vehicles which run of 12V DC. Ensure power is switched OFF at the front panel before connecting power.

AUDIO CONNECTIONS

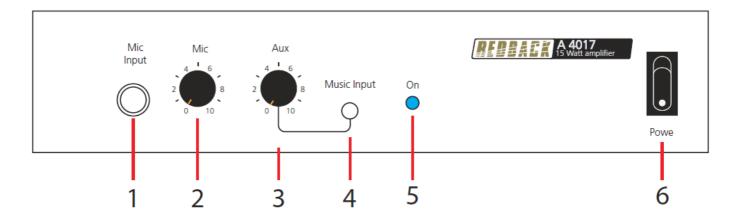
Audio input is via a 3 pin balanced XLR socket on the rear of the unit or a 6.5mm jack on the front of the unit, both of which are for a low level Microphone Input. Both of these inputs are controlled by the Mic volume control on the front of the unit. Phantom power is available for these inputs selectable by the DIP switches on the rear of the unit. Dual RCA sockets on the rear of the amplifier, and a 3.5mm Jack input on the front of the amplifier for portable devices such as mobile phones and music players, provide a line level audio input. Both of these inputs are controlled by the Aux volume control on the front of the unit. The sensitivity of this input is selectable via the DIP switches on the rear of the unit.

SPEAKER CONNECTIONS

Speakers with a total impedance or $4-16\Omega$ may be connected to the terminals marked $4-16\Omega$ on the rear of the amplifier. The speaker outputs are internally protected by polyswitches which will disconnect the speaker line when over-driven.

REAR PANEL GUIDE

shows the layout of the A 4017 rear panel.



1. DC Fuse (3A M205)

This fuse protects the internal power supply. Replace with M205 3A rated fuse only.

2. 12V DC Input (Main Supply)

Connects to a 12V DC supply with at least 2 amp current capacity. An M 8936 12V, 2Amp plugpack is supplied for this purpose. (Please observe the polarity)

3. 12V DC Input (Backup)

Connects to a 12V DC supply with at least 2 Amp current capacity. (Please observe the polarity)

4. Speaker Output

Connect this to the speakers. The Impedance of the speaker load must be between 4-16Ω.

5. Headphone Output

- 6. This is a standard stereo headphone output which takes a 3.5mm Jack connector.
- 7. Aux Input

This is a dual RCA input which is internally mixed to produce a mono input signal. The input sensitivity is adjustable to 200mV or 1V.

8. DIP Switches

These DIP switches set the phantom power to the microphone input and adjust the Aux input sensitivitty. (See DIP switch settings for more detail.)

9. Mic Input

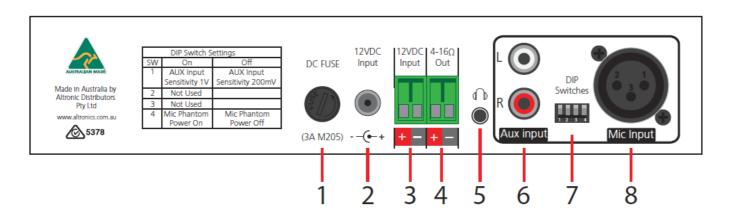
This is a balanced XLR microphone input.

DIP SWITCH SETTINGS

DIP Switch Settings			
sw	On	Off	
1	AUX Input Sensitivity 1V	AUX Input Sensitivity 200mV	
2	Not Used		
3	Not Used		
4	Mic Phantom Power On	Mic Phantom Power Off	

FRONT PANEL GUIDE

shows the layout of the A 4017 front panel.



1. Mic Input

This is an unbalanced microphone input which is mixed with the Mic Input on the rear of the unit.

2. Mic Volume

use this to adjust the microphone input/s volume.

3. Aux Volume

use this to adjust the Aux and Music input's volume.

4. Music Input

Use this input to connect a portable music player. This input will mix with the Aux input on the rear of the unit and is adjusted via the Aux volume control.

5. On Indicator

This led indicates the unit has power.

6. Power Switch

Use this to turn the unit on.

TROUBLESHOOTING

If the REDBACK 15W amplifier fails to deliver the rated performance, check the following:

No Power, No Lights

Make sure amplifier power switch is on. Check the DC fuse. Replace with only the correct type and rating. Over rated fuses will invalidate warranty.

Distorted Output

Check that the speaker type is correct for the output that you are using (ie. 4-16 Ω). 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

Check speaker types, ratings and for any short circuits on the speaker line.

SPECIFICATIONS

POWER OUTPUTS

•	A 4016:	.15 watts RMS @ 13.8V into 4Ω
•	Distortion:	< 3%, @ 1kHz

SIGNAL TO NOISE RATIO

typically 75dB below rated output

FREQUENCY RESPONSE

•	Mic inputs:	50Hz – 12k	KHz, -	3dB
•	Line inputs:	50Hz – 20k	κHz	3dB

SENSITIVITY

•	Mic inputs: Rear	1.5mV	balanced
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• Front......1.5mV unbalanced

Line inputs:	200mV/1V
CONTROLS	
Mic inputs:	Volume
Line inputs:	Volume
• Power:	On/off switch

OUTPUT CONNECTORS

•	Speakers:	Screw terminals
•	Headphones:	3.5mm socket

INPUT CONNECTORS

Mic Inputs:	3 pin XLR balanced	or 6.35mm jack
unbalanced		
Aux input:	RCA stereo socket	
Music Input:	3.5mm stereo socket	
• 12V DC power:	Screw terminals	or 2.1mm DC
Jack		
CURRENT DRAW:	Min ≈ 60 mA	Max ≈ 1.7A
FUSE PROTECTION:	3A DC	
• DIMENSIONS:		
• WEIGHT:	≈0.38kg	
COLOUR:	Black	

Specifications subject to change without notice Since 1976 Redback amplifiers have been manufactured in Perth, Western Australia. With over 45 years experience in the commercial audio industry, we offer consultants, installers and end users reliable products of high build quality with local product support. We believe there is significant added value for customers when purchasing an Australian made Redback amplifier or PA product

Australian Made Status

All Redback house products will now be sporting the official Australian Made logo. Since starting manu-facturing of commercial audio equipment in the mid 70's we have always taken pride in producing a quality local product. The new adoption of the Australian Made logo will help us get the word out to local and export markets that our products carry the official compliance seal of the Australian Made campaign. We have always pushed our 'local is better' line in all of our marketing efforts, it's always an added boost when you are backed up by a widely recognised and respected icon.

Industry leading 10 year warranty.

There's a reason we have the industry-leading DECADE warranty. It's because of a long tried and tested history of bulletproof reliability. We've heard PA contractors tell us they still see the original Redford amplifier still in service in schools – that's over 40 years of operation – and still going strong! Should a product become faulty please contact us to obtain a return authorisation number. Please ensure you have all the relevant documentation on hand. We do not accept unauthorised returns. Proof of purchase is required so please retain your invoice.

Documents / Resources



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A 4017 PA 15W Public Address Amplifier, A 4017, PA 15W Public Address Amplifier, Public Address Amplifier, Address Amplifier

References

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