

## Operating Manual

### OVERVIEW

This compact module includes a seven step 100V 50 Watt line speaker attenuator/volume control which can be remotely adjusted via RS485 serial control. A 24V DC override relay is included for emergency paging applications, ensuring the volume is switched to maximum regardless of the volume setting.

The unit is suitable for all 100V line amplifiers and connects between the amplifier output and the speakers to be controlled. The Redback® A 6507 will interface directly to the Redback® A 6500 wallplate or any other third party control system which utilises RS485 serial codes. The attenuator circuit includes a 22uF BP capacitor for line monitoring applications.

Fig 1 shows the layout of the front of the A 6507.

#### 1 DIP Switches

1 ON: Accept serial codes through RS485 input.

2 ON: Accept serial codes from Redback® A 6500 wall plate.

3: Not Used

4: Must be set to OFF.

*NOTE: Only one of the DIP switches 1-2 can be on at any time.*

#### 2 RJ45 interface

This RJ45 port is for connection to other Redback® compatible devices.

#### 3 RJ45 interface

This RJ45 port is for connection to the Redback® A 6500 wall plate.

#### 4 Serial Input

This input takes an RS485 input signal. This can be connected to the RS485 serial output of the Redback® A 6505 or to a third party system. Follow standard RS485 wiring when connecting these terminals.

#### 5 Failsafe/Normal Switch

This changes the function of the override in the attenuator circuit. When in "Normal" mode the output of the attenuator will switch to full volume when 24V DC is applied to the Override Relay contacts. When in "Failsafe" mode, the output is at full volume when 24V DC is removed from the Override relay contacts.

#### 6 Override Relay Contacts

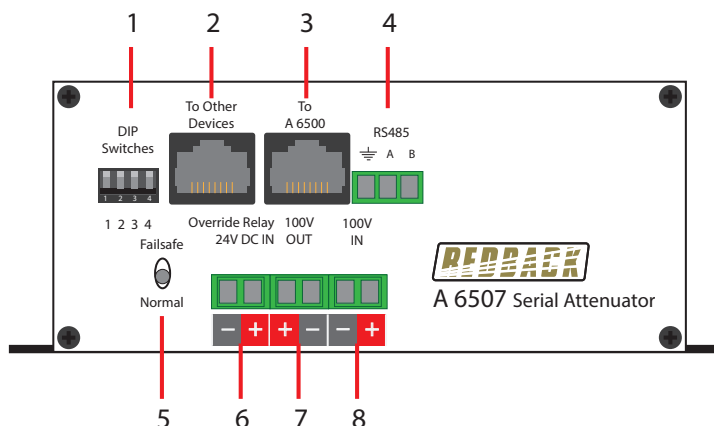
Apply 24V DC to these contacts when emergency/paging override is required. The output volume will be set to maximum when the failsafe/normal switch is in "Normal" mode.

#### 7 100V Out

These terminals connect to the output speaker load up to a maximum of 50 watts.

#### 8 100V In

These terminals connect to the output of the 100V amplifier.



# Redback® A 6507 Serial Controlled 100V Line Attenuator

## CONNECTIONS

Figure 2 illustrates a typical connection diagram when using the Redback® A 6500 wallplate to control the Redback® A 6507 Attenuator. The Redback® A 6500 connects via a Cat5e/6 lead into the "To A 6500" RJ45 connection port. 24V DC power is supplied to the Redback® A 6507 via a 24V DC plugpack or other 24V DC source (minimum 24V DC 1A). Serial control of the attenuator circuit is provided by the A 6500 wallplate which is programmed with the serial codes using the PC software supplied with the Redback® A 6500. (Refer to the Serial Codes section for details).

The audio into the attenuator is provided by an amplifier with a 100V line output. The attenuated signal is then output out of the attenuator into the speaker load up to a maximum of 50 watts of load.

Emergency or paging override of the audio can be achieved by applying 24V DC to the Override Relay terminals. Once activated the output volume will switch to maximum regardless of the volume setting.

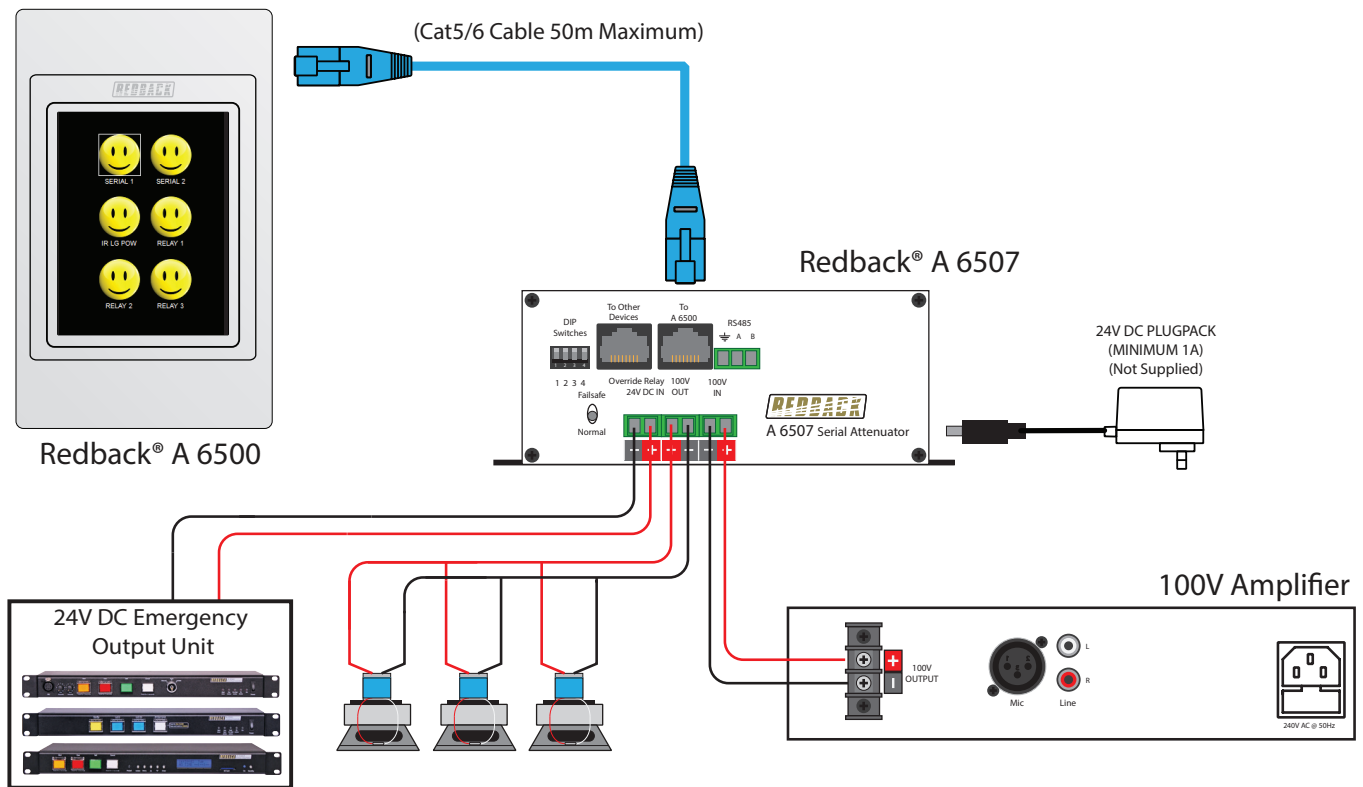


Fig 2.

Figure 3 illustrates the same layout as figure 2 except that the Redback® A 6507 is controlled by a third party controller which sends RS485 codes directly to the input connector.

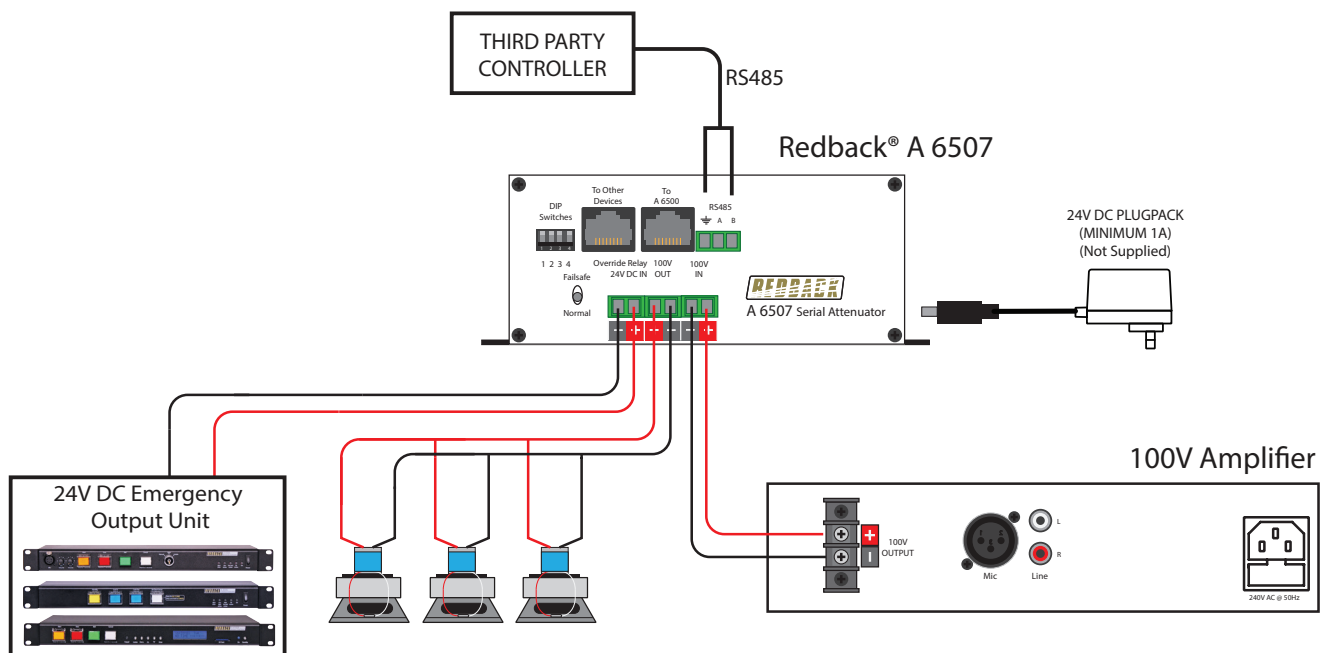


Fig 3.

# Redback® A 6507 Serial Controlled 100V Line Attenuator

Figure 4 illustrates an example where not only does the Redback® A 6507 need to be controlled but also other devices require control from the Redback® A 6500 wallplate. In this example the Redback® A 6500 is connected to the Redback® A 6505 via the Cat5e/6 cable which then passes through serial codes to the Redback® A 6507 via the RS485-1 terminals. The Redback® A 6505 can then control relays, the IR repeater and send serial codes out the second serial port to other equipment.

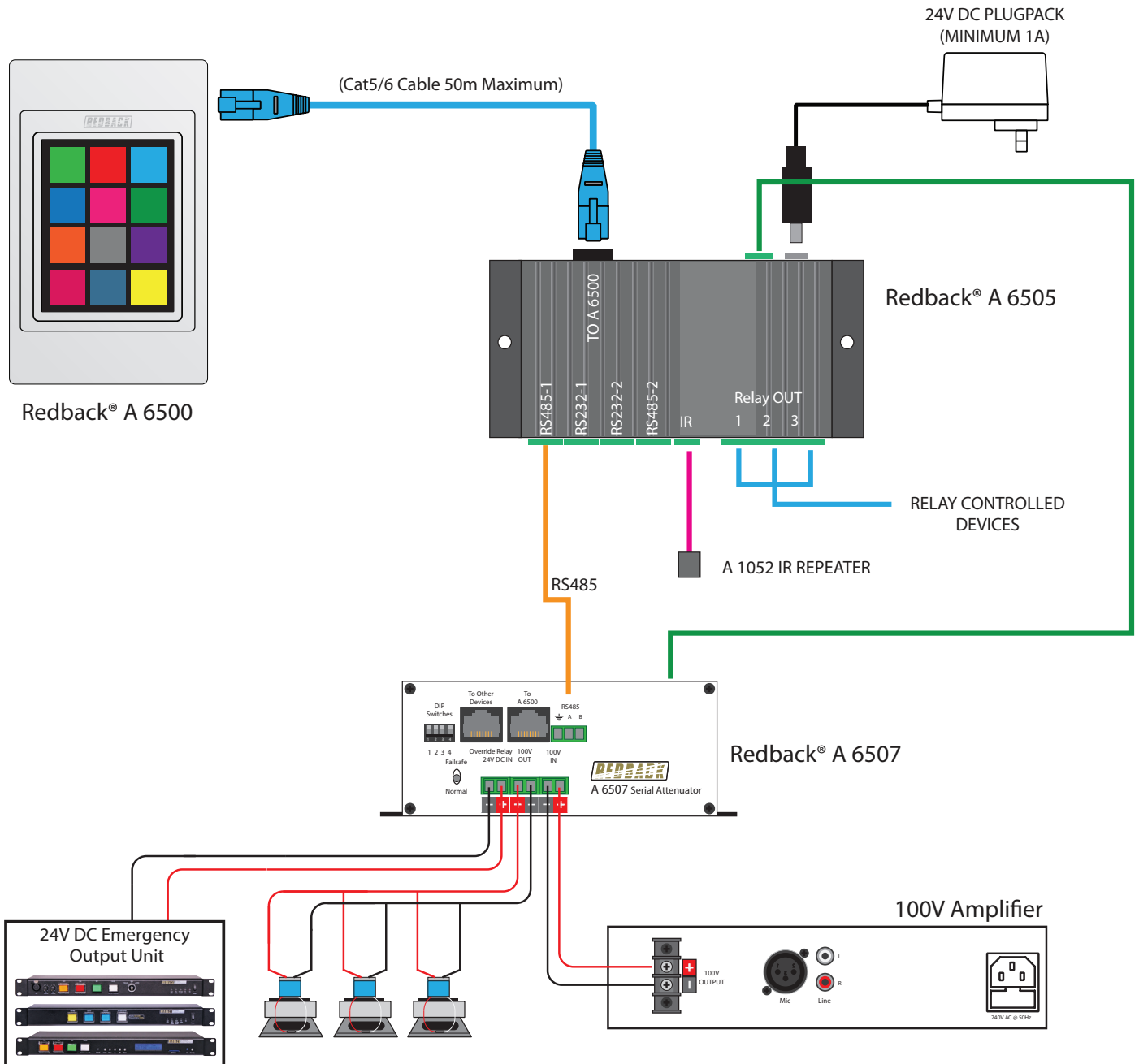


Fig 4.

# Redback® A 6507 Serial Controlled 100V Line Attenuator

## SERIAL CODES

The attenuator output level is adjusted by sending serial codes sent in the following format.

The serial data sent has to be transmitted at 9600 baud, with the stop bit set to 1, data bits to 8, parity to none and the format must be ASCII.

### Function:

The attenuator can be set to a given level between 0 (Off) and 6 (maximum).

To set these levels simply send the code ATTEN? where ? is the number between 0 and 6.

The output level can also be increased or decreased by sending the code.

Increase Level = ATTENU (where U stands for UP) or

Decrease Level = ATTEND (where D stands for DOWN).

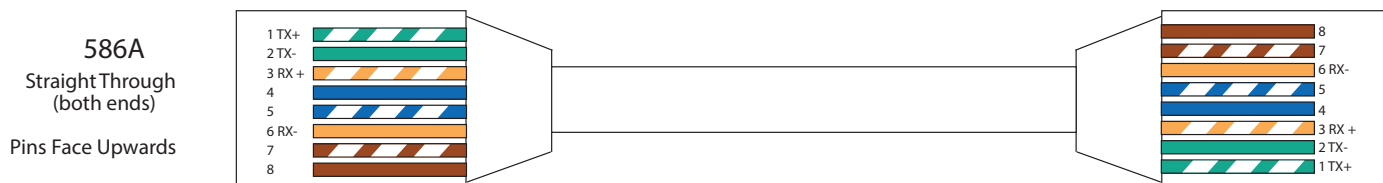
*Note: DIPSW4 must be off for these codes to work correctly.*

If power to the A6507 is removed the unit will remember its last Level setting when power is restored.

## RJ45 cabling configuration for system components (586A 'Straight through')

System components are connected using "pin to pin" configuration RJ45 data cabling as shown below. When installing ensure all connections are verified with a LAN cable tester before switching any system component on.

**Failure to follow the correct wiring configuration may result in damage to system components.**



All Australian made Redback products are covered by a 10 year warranty.

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.