

3 **Operating Controls**

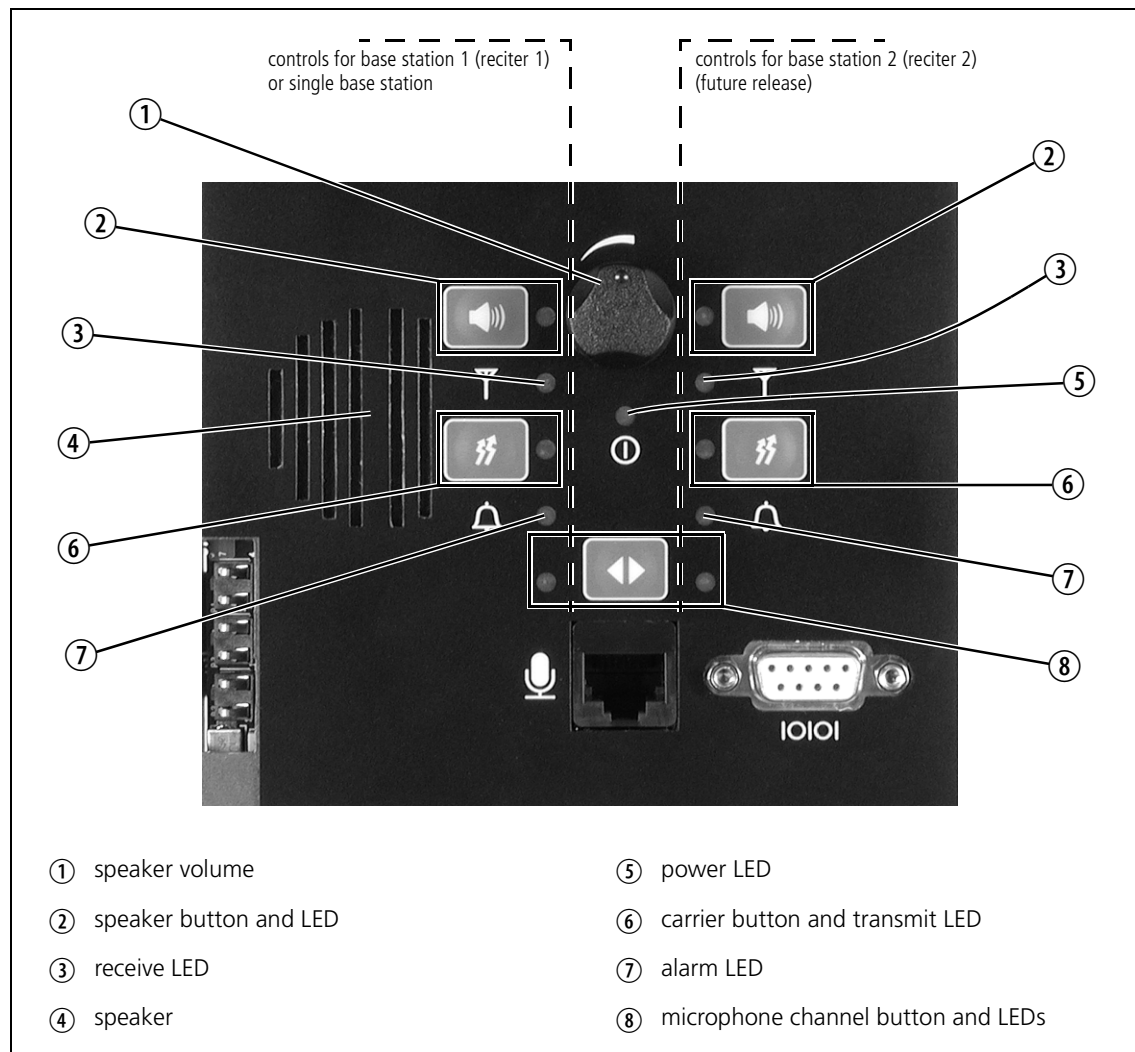
The TB8100 BSS has a number of hardware controls which are available to the user. These controls are located on the control panel, reciter and PMU. This chapter identifies and describes these controls.

3.1 Control Panel

3.1.1 Standard Control Panel

The operating controls on the standard control panel allow some manual control of one or two¹ base stations in a TB8100 BSS. These controls and their associated LED indicators are identified in [Figure 3.1](#) below, and their functions are explained in the paragraphs which follow. Refer to [“Connection” on page 99](#) for information on the connectors located on the control panel.

Figure 3.1 Operating controls on the standard control panel



Speaker Volume

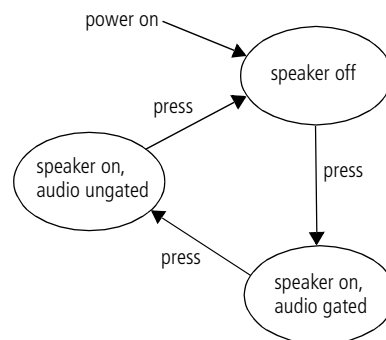
Controls the volume of the speaker mounted behind the control panel. Rotate clockwise to increase the volume, and anticlockwise to decrease the volume.

1. Control of two base stations will be available in a future release.

Speaker Button and LED



The speaker button cycles the base station audio through three states. At power-on the speaker is off. Pressing the button once turns the speaker on, but leaves the audio gated (muted). Pressing the button a second time leaves the speaker on and ungates the audio (monitor mode). Pressing the button for a third time returns to the start of the sequence, with the speaker off.



The green speaker LED is lit when the speaker is turned on.

Receive LED



The green receive LED is lit when a valid signal is received on its associated base station.

Speaker

The control panel is fitted with a 0.5W speaker. Audio from either or both base stations can be connected to this speaker.

Power LED



The green power LED is lit when the PMU is turned on and supplying power to the TB8100 BSS.

Carrier Button and Transmit LED



The carrier button is a momentary press switch. When held down, it keys the transmitter while disabling the 600Ω balanced and unbalanced line, and microphone audio. The transmitted signal is unmodulated, i.e. carrier only.

The red transmit LED is lit while its associated transmitter is transmitting.

Alarm LED

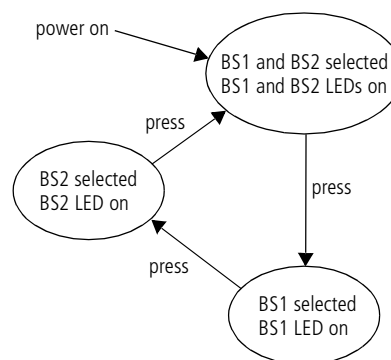


The red alarm LED will flash at a rate of 2 to 5Hz when an alarm has been generated by any of the TB8100 BSS modules. It will continue to flash until the alarm is cancelled or the fault is fixed. Note that only those alarms which are enabled using the Service Kit (Configure > Alarms > Alarm Control) will cause this LED to flash. Refer to the Service Kit documentation for more information.

Microphone Channel Button and LEDs



The microphone channel button selects which base station (BS) the microphone is connected to. At power-on both base stations are selected. Pressing the button once will connect the microphone audio to base station 1. Pressing the button a second time will connect the audio to base station 2. Pressing the button for a third time returns to the start of the sequence, with the microphone audio connected to both base stations.



The green LED is lit when the microphone audio is connected to its associated base station.

3.1.2 Dual Base Station Control Panel

The operating controls on the dual base station control panel allow some manual control of two base stations in a TB8100 BSS. These controls and their associated LED indicators are identified in [Figure 3.2 on page 31](#), and their functions are explained in the paragraphs which follow. Refer to [“Connection” on page 99](#) for information on the connectors located on the control panel.



Note When you change base station, the LEDs on the control panel do not change. They continue to reflect the last changed status of the previous base station until you press a control panel button, or the reciter issues an instruction to update an LED. If one LED needs to change, the status of all LEDs is updated. To overcome this limitation, we recommend that you cycle through all three speaker modes immediately after changing base station, finally selecting the speaker mode you want. This forces the base station to refresh the control panel LED display.

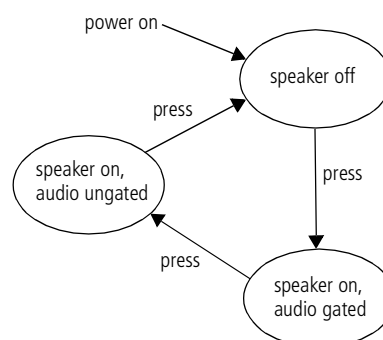
Speaker Volume

Controls the volume of the speaker mounted behind the control panel. Rotate clockwise to increase the volume, and anticlockwise to decrease the volume.

Speaker Button and LED



The speaker button cycles the base station audio through three states. At power-on the speaker is off. Pressing the button once turns the speaker on, but leaves the audio gated (muted). Pressing the button a second time leaves the speaker on and ungates the audio (monitor mode). Pressing the button for a third time returns to the start of the sequence, with the speaker off.



The green speaker LED is lit when the speaker is turned on.

Receive LED



The green receive LED is lit when a valid signal is received on the selected base station.

Speaker

The control panel is fitted with a 0.5W speaker. Audio from either base station can be connected to this speaker.

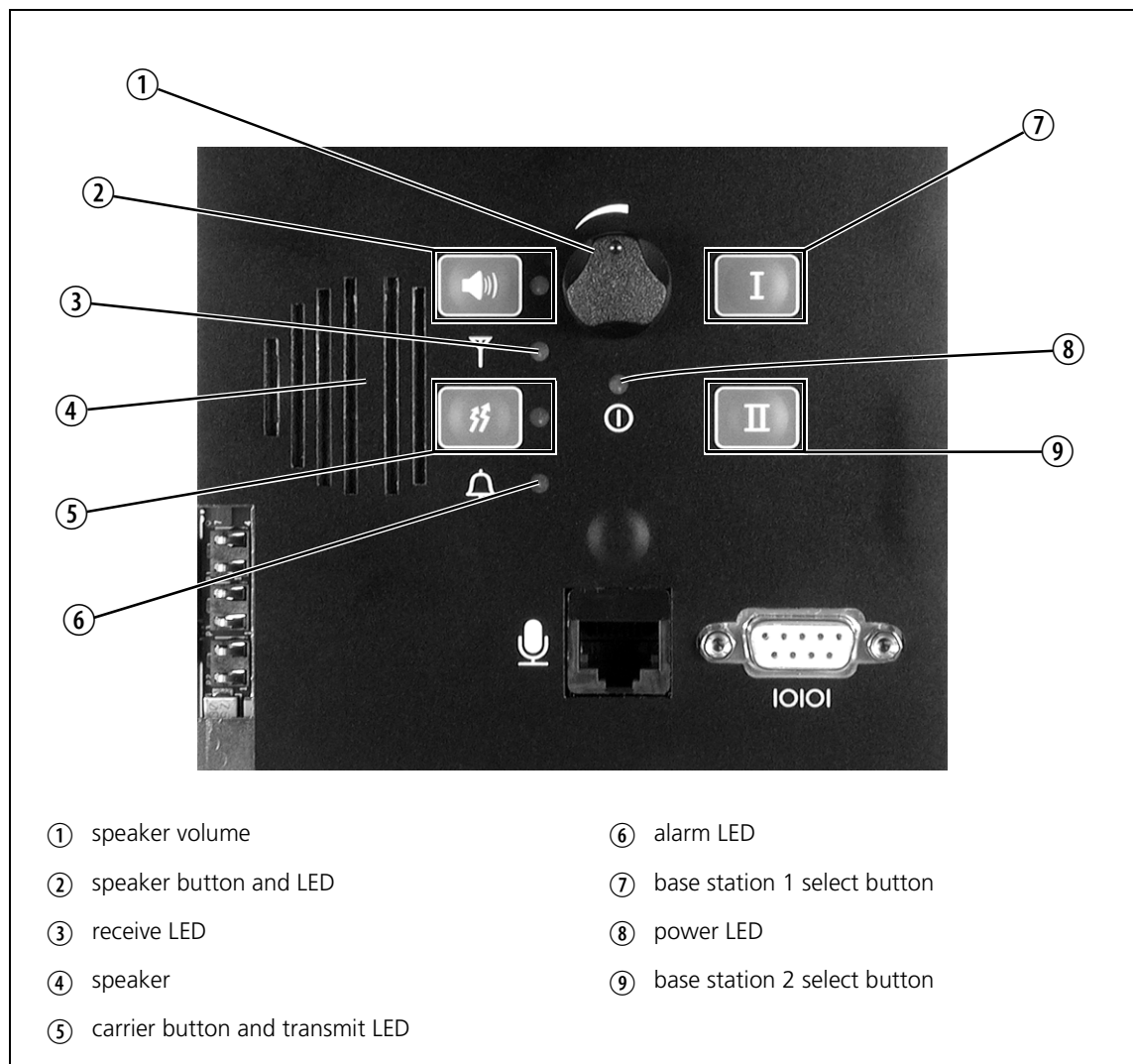
Carrier Button and Transmit LED



The carrier button is a momentary press switch. When held down, it keys the transmitter while disabling the 600Ω balanced and unbalanced line, and microphone audio. The transmitted signal is unmodulated, i.e. carrier only.

The red transmit LED is lit while the selected transmitter is transmitting.

Figure 3.2 Operating controls on the dual base station control panel



Alarm LED



The red alarm LED will flash at a rate of 2 to 5Hz when an alarm has been generated by any of the TB8100 BSS modules. It will continue to flash until the alarm is cancelled or the fault is fixed. Note that only those alarms which are enabled using the Service Kit (Configure > Alarms > Alarm Control) will cause this LED to flash. Refer to the Service Kit documentation for more information.

Base Station 1 Select Button



Pressing this button selects base station 1. Pressing the button again while base station 1 is selected has no effect. When the BSS is powered up, the control panel selects base station 1.

Power LED



The green power LED is lit when the PMU is turned on and supplying power to the BSS.

Base Station 2 Select Button

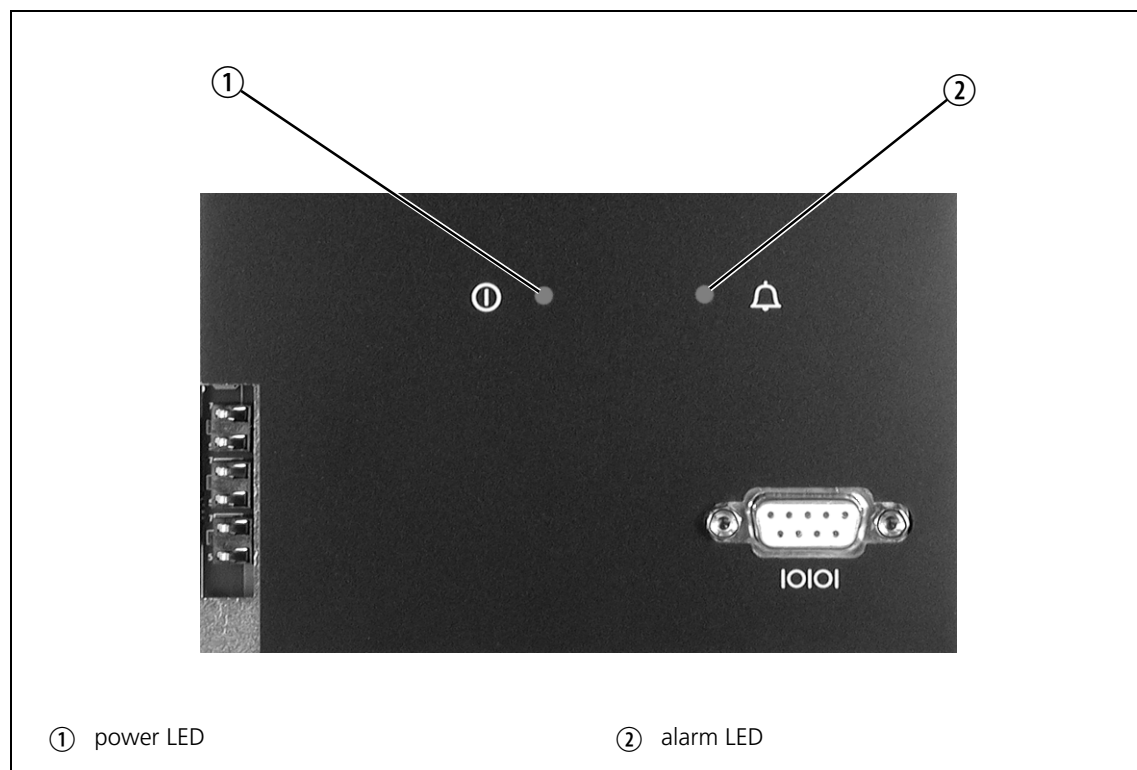


Pressing this button selects base station 2. Pressing the button again while base station 2 is selected has no effect.

3.1.3 Power Save Control Panel

The indicator LEDs on the power save control panel are identified in [Figure 3.3](#) below.

Figure 3.3 LED indicators on the power save control panel



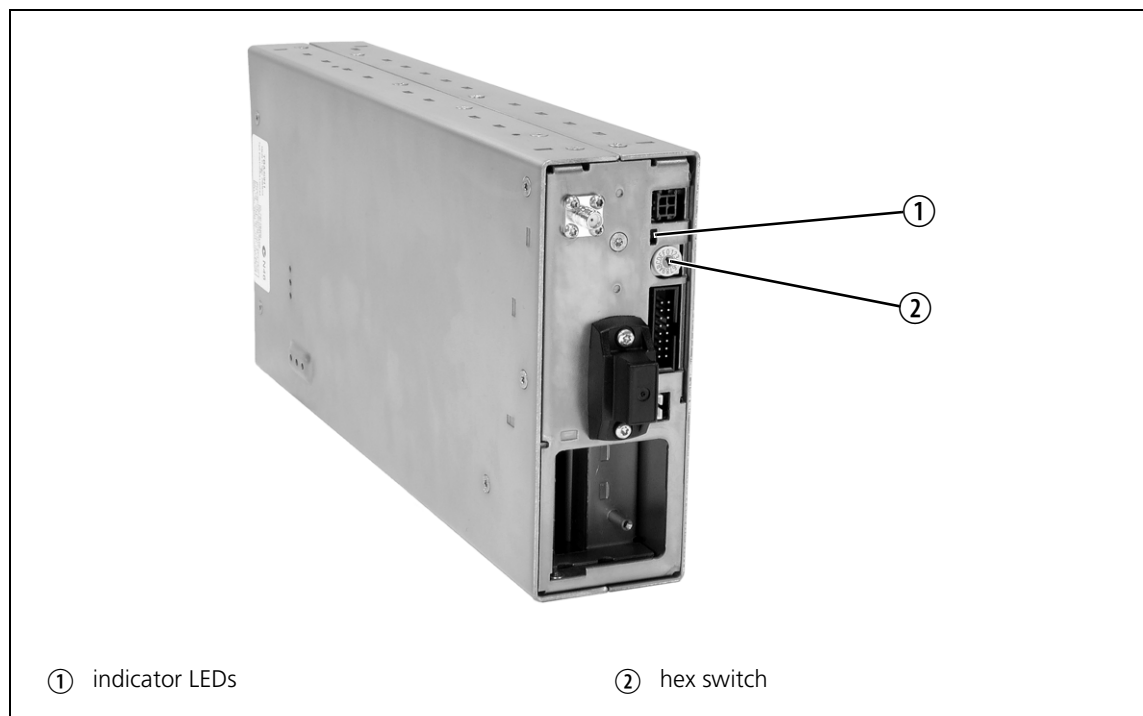
Indicator LEDs

The power LED and alarm LED behave in the same way as for the standard control panel. Refer to “Power Saving” on page 53 for information about the behaviour of the LEDs when in power saving mode.

3.2 Reciter

The only controls on the reciter are the rotary hex switch mounted on the front panel, and the indicator LEDs visible through a slot in the front panel.

Figure 3.4 Operating controls on the reciter



Hex Switch

This switch is used to assign an identity number to each base station in the BSS¹. For example, the reciters in a dual base station system would be numbered “1” and “2”. The reciter with the lowest hex number becomes the “control” reciter. In a single base station system, the hex switch on the reciter is set to “1”.

Indicator LEDs

These LEDs provide the following information about the state of the reciter:

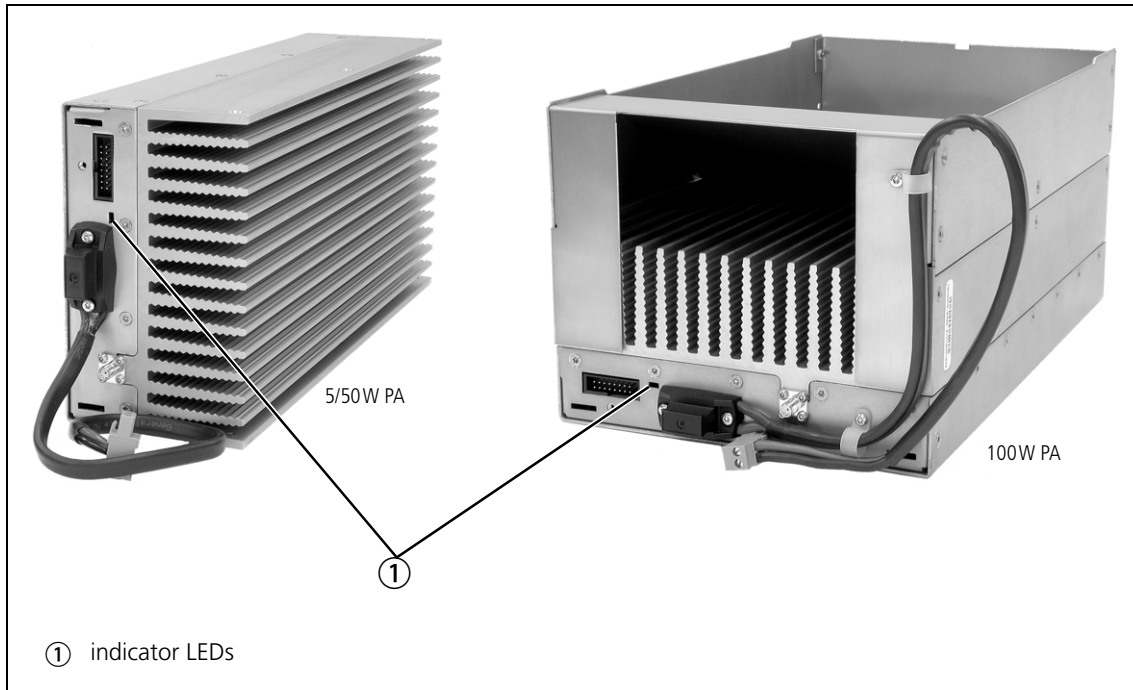
- steady green – the reciter is powered up
- flashing red – one or more alarms have been generated; you can use the Service Kit software to find out more details about the alarms.

1. This feature will be available in a future release.

3.3 PA

The only controls on the PA are the indicator LEDs visible through a slot in the front panel.

Figure 3.5 Operating controls on the PA



Indicator LEDs

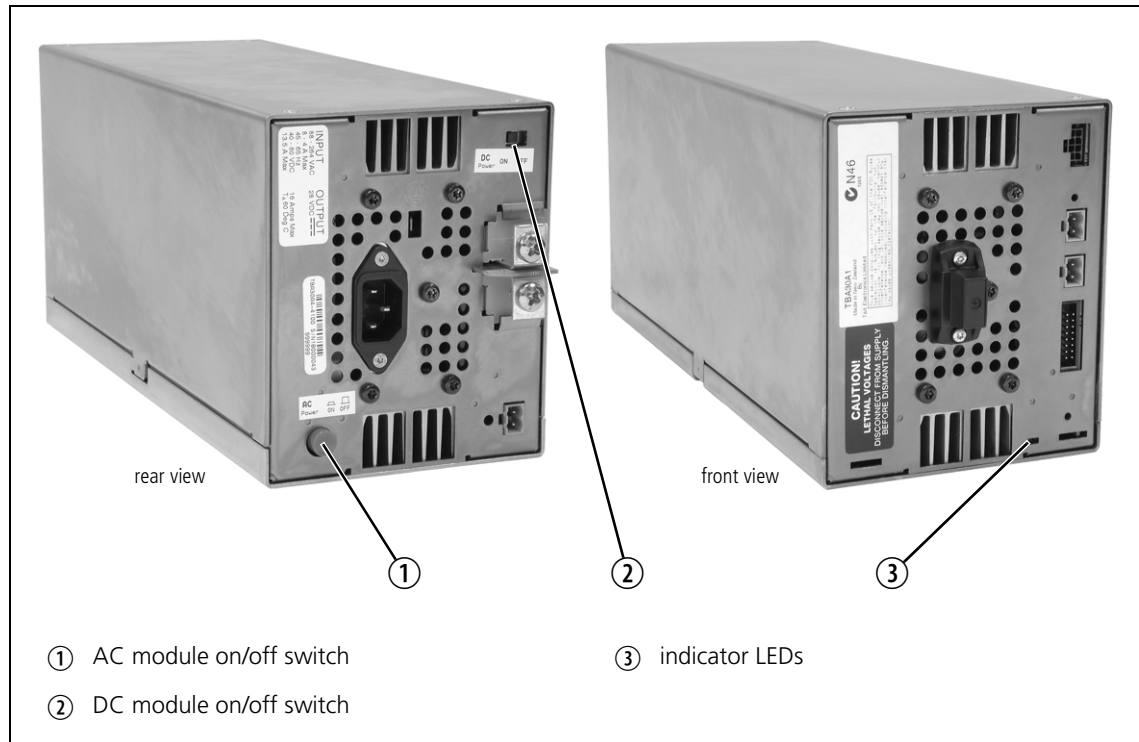
These LEDs provide the following information about the state of the PA:

- steady green – the PA is powered up
- flashing green – the PA has no application firmware loaded; you can use the Service Kit software to download the firmware
- flashing red – one or more alarms have been generated; you can use the Service Kit software to find out more details about the alarms.

3.4 PMU

The only controls on the PMU are the on/off switches on the rear panel for the AC and DC modules, and the indicator LEDs visible through a slot in the front panel.

Figure 3.6 Operating controls on the PMU



AC Module On/Off Switch

This switch turns the AC input to the PMU on and off. Note that this switch breaks only the phase circuit, not the neutral.

DC Module On/Off Switch

This switch turns the DC output from the PMU on and off. It is recessed to prevent the DC module being accidentally switched off, thus disabling the battery back-up supply.

Note that this switch disables only the control circuitry – the DC input is still connected to the power circuitry.



Warning!!

These switches do not totally isolate the internal circuitry of the PMU from the AC or DC power supplies. You must disconnect the AC and DC supplies from the PMU before dismantling or carrying out any maintenance. Refer to the service manual for the correct servicing procedures.

Indicator LEDs

These LEDs provide the following information about the state of the PMU:

- steady green – the PMU is powered up
- flashing green – the PMU has no application firmware loaded; you can use the Service Kit software to download the firmware
- flashing red – one or more alarms have been generated; you can use the Service Kit software to find out more details about the alarms.