7 Connection

Once the TB8100 BSS hardware is installed, you need to connect the individual modules to each other, and to any ancillary equipment required in your system. This chapter provides information on all the inputs and outputs available on the TB8100 BSS.

7.1 Overview of Inputs and Outputs

This section identifies the main input and output connections for the TB8100 BSS.

- Figure 7.1 on page 100 identifies the connections at the front of a dual base station, and Figure 7.4 on page 103 identifies those at the rear.
- Figure 7.2 on page 101 identifies the connections at the front of a dual 12V PA base station, and Figure 7.5 on page 104 identifies those at the rear.
- Figure 7.3 on page 102 identifies the connections at the front of a single 100W base station.
- Figure 7.6 on page 104, and Figure 7.7 and Figure 7.8 on page 105 identify the connections on the standard, dual base station, and Power Save control panels.

Refer to the following sections in this chapter for more details on these connections.

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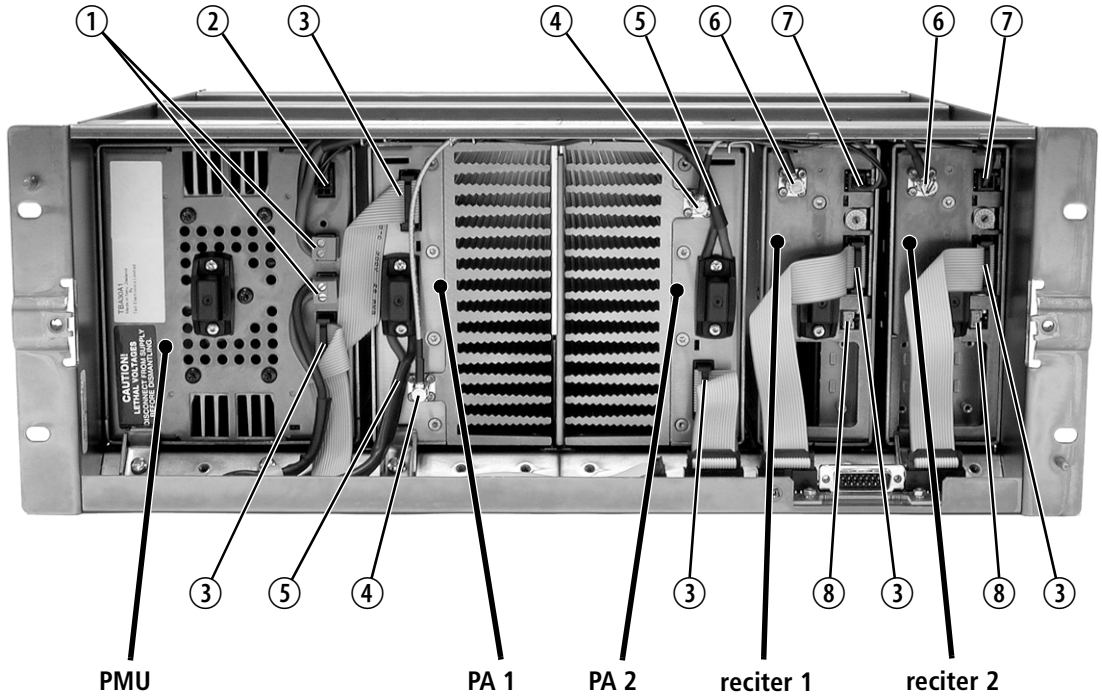
Figure 7.1 Dual 5W or 50W base station inputs and outputs - front view



① 28VDC high current output for PA

② 28VDC low current output for reciter

③ system control bus

④ RF input from reciter

⑤ 28VDC high current input cable from PMU

⑥ RF output to PA

⑦ 28VDC low current input from PMU

⑧ DC output (for optional reciter fan only)

Important

In base station systems which use a PMU, the PMU must be connected to the system control bus at all times. The I^2C current source is located in the PMU, and if the PMU is disconnected, the state of much of the bus will be undefined. This may cause corrupted data to be present on the bus when the reciter reads the states of the switches on the control panel. This in turn may result in random actuations of microphone PTT, carrier, or speaker key, causing the BSS to transmit or the speaker to be actuated incorrectly.

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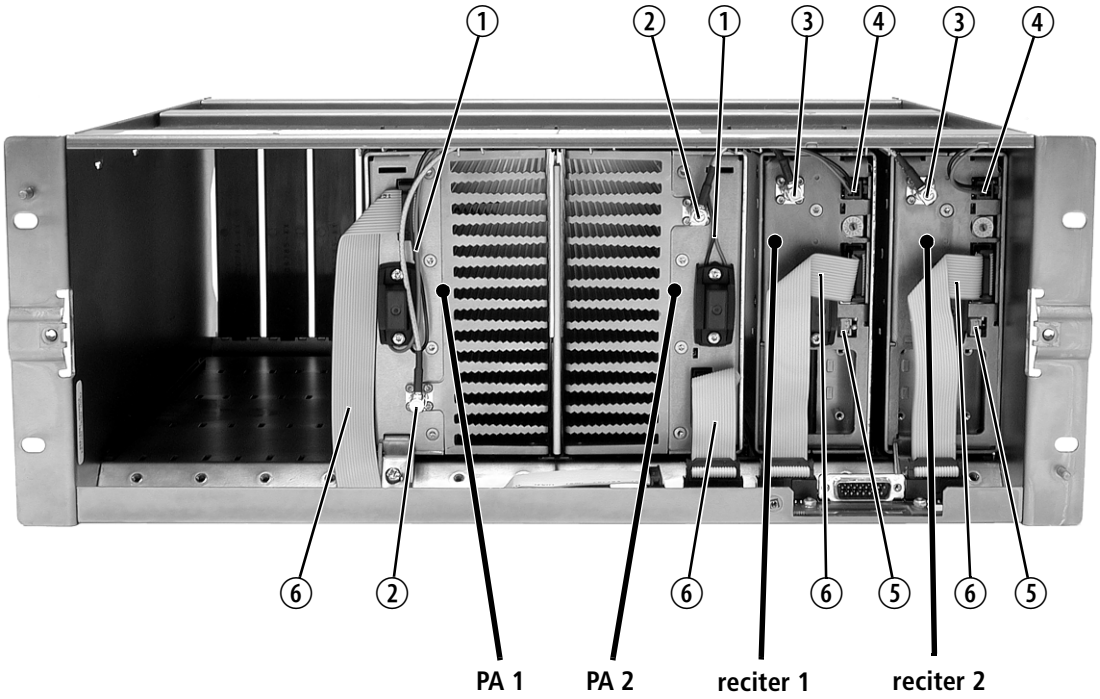
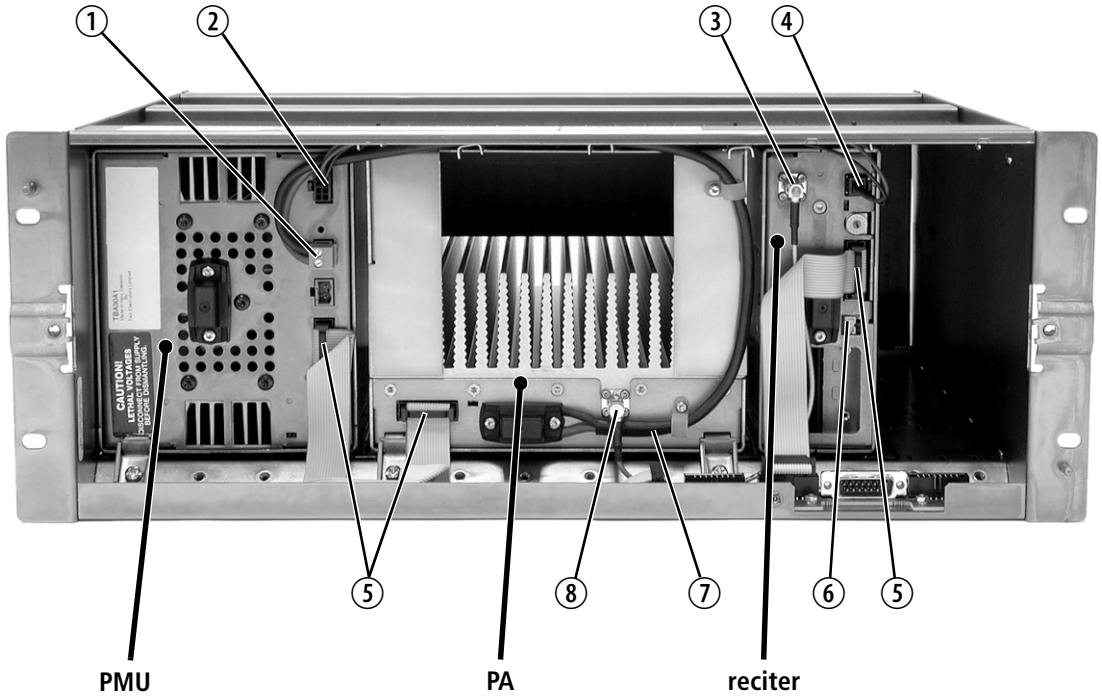
Figure 7.2 Dual 5W or 50W 12V PA base station inputs and outputs - front view



1. 12VDC output for reciter
2. RF input from reciter
3. RF output to PA
4. 12VDC input from PA
5. DC output (for optional reciter fan only)
6. system control bus

Figure 7.3 Single 100W base station inputs and outputs - front view



① 28VDC high current output for PA

② 28VDC low current output for reciter

③ RF output to PA

④ 28VDC low current input from PMU

⑤ system control bus

⑥ DC output (for optional reciter fan only)

⑦ 28VDC high current input cable from PMU

⑧ RF input from reciter

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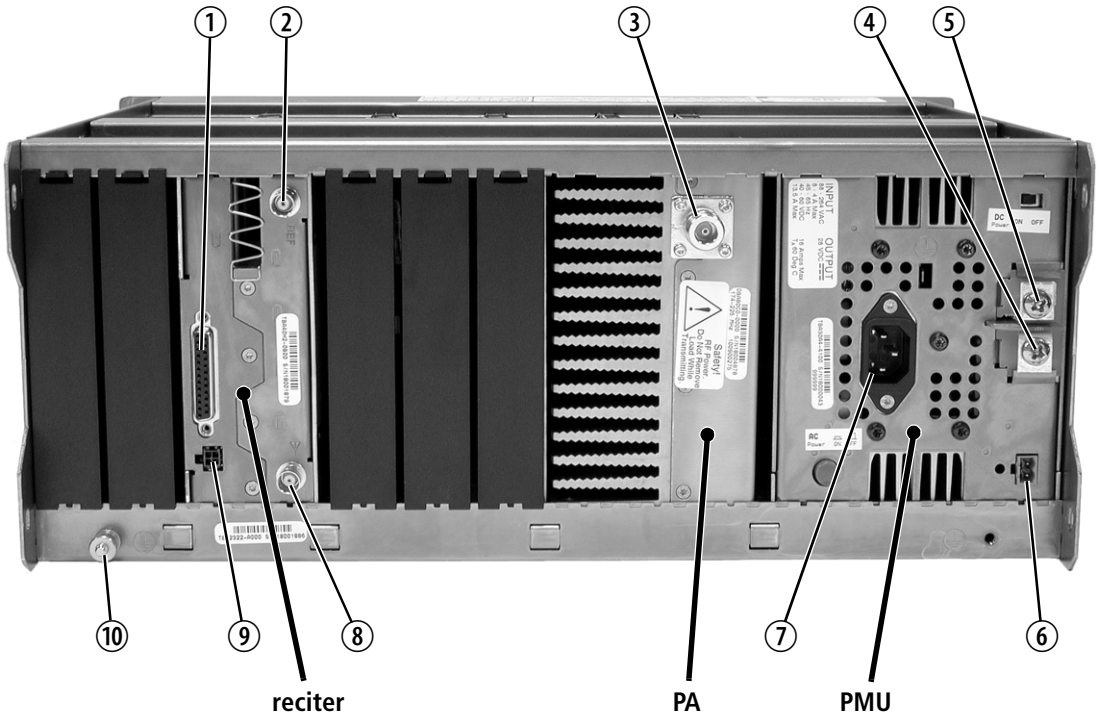
Figure 7.4 Single 5W or 50W base station inputs and outputs - rear view



① system interface connector

② external reference frequency input

③ RF output (to antenna)

④ –VDC input

⑤ +VDC input

⑥ auxiliary DC output

⑦ AC mains input

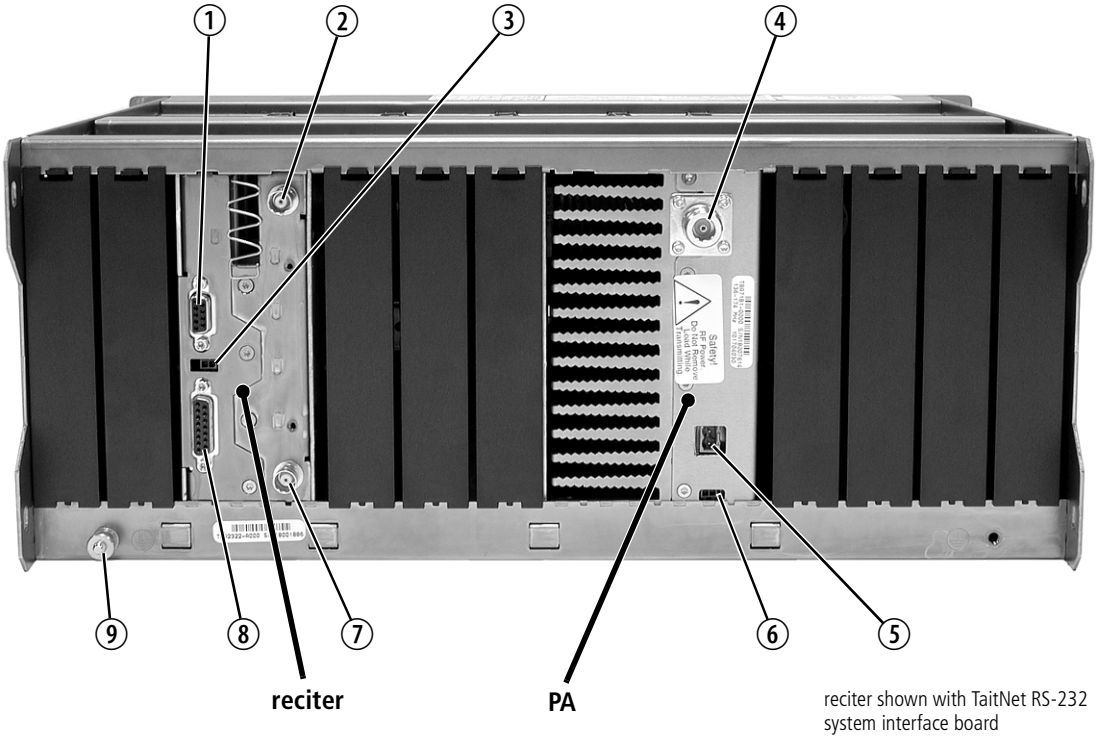
⑧ RF input (from antenna)

⑨ auxiliary DC input for system interface[a]

⑩ subrack ground connector

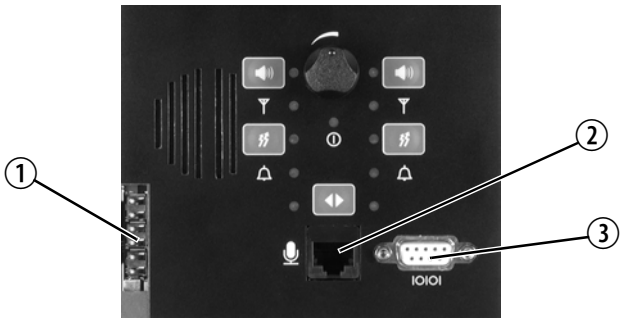
a. Older system interface boards use the 4-way connector shown in the photograph, while the TaitNet RS-232 board and all other boards manufactured after March 2005 use a 2-way connector. Refer to "Reciter Auxiliary DC Input from PMU" on page 109 for more details.

Figure 7.5 Single 5W or 50W 12V PA base station inputs and outputs - rear view



1. RS-232 connector
2. external reference frequency input
3. auxiliary DC input for system interface
4. RF output (to antenna)
5. 12VDC input
6. Power Saving control input
7. RF input (from antenna)
8. TaitNet system interface connector
9. subrack ground connector

Figure 7.6 Standard control panel inputs and outputs



1. DC outputs for fans mounted on front panel; also used for fan rotation detectors (if fitted)
2. microphone connector
3. RS-232 programming port

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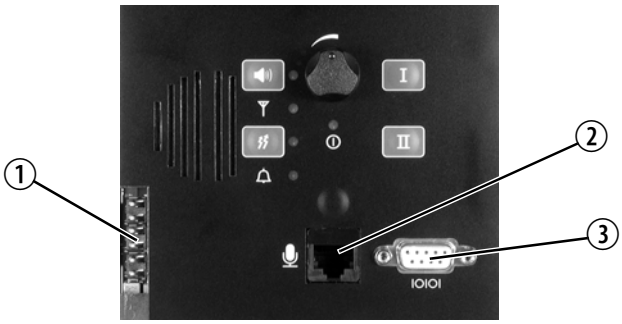
Figure 7.7 Dual base station control panel inputs and outputs



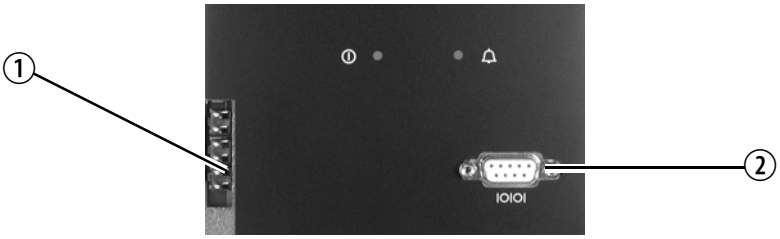
① DC outputs for fans mounted on front panel; also used for fan rotation detectors (if fitted)

② microphone connector

③ RS-232 programming port

Note The microphone input feeds simultaneously to both base station 1 and base station 2. However, the PTT can only be used on the currently selected base station. The RS-232 connection is only to the reciter on the currently selected base station. You should disconnect the Service Kit before switching base stations.

Figure 7.8 Power Save control panel inputs and outputs



① DC outputs for fans mounted on front panel; also used for fan rotation detectors (if fitted)

② RS-232 programming port

Note When a reciter fitted with a TaitNet RS-232 system interface board is used in a TB8100 BSS, the RS-232 port on the control panel is disabled. In this situation you must connect to the RS-232 port at the rear of the reciter. Refer to "TaitNet RS-232" on page 118 for more details.

Note If high-power HF equipment is located close to the TB8100 BSS, it can sometimes cause interference to RS-232 serial port communications. If this interference does occur, we recommend fitting ferrites on the serial cable close to the control panel. This recommendation only applies to communication equipment permanently connected to the BSS.

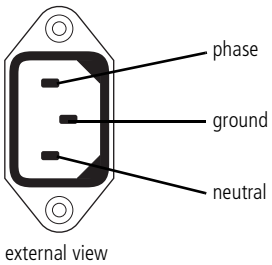
7.2 Power Supply Connections

7.2.1 AC Power

The TB8100 PMU is designed to accept a mains input of 88 to 264 VAC at 45 to 65 Hz. We recommend that a standard 3-wire grounded outlet is used to supply the AC power. The socket-outlet must be installed near the equipment and must be easily accessible. This outlet should be connected to an AC power supply capable of providing a maximum of 600 W. The requirements of two typical AC supplies are given in the following table.

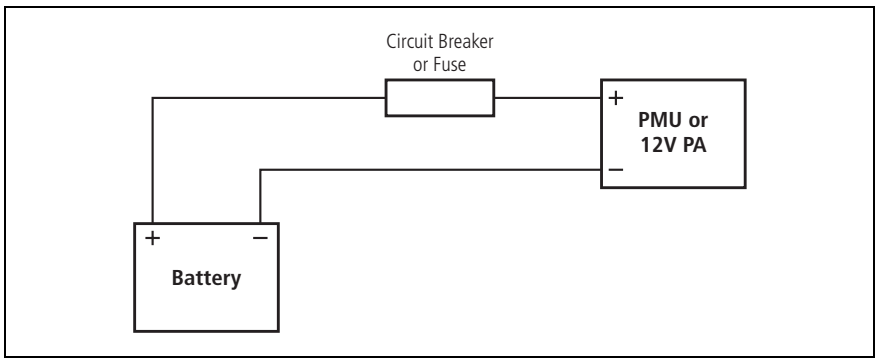
Nominal Supply Voltage	Current Requirement	Circuit Breaker/Fuse Rating
115 VAC	8 A	10 A
230 VAC	4 A	6 A

Your TB8100 BSS should come supplied with a power supply cord to connect the male IEC connector on the PMU to the local AC supply. The pins of the IEC connector on the PMU are identified at right.



7.2.2 DC Power

Figure 7.9 Recommended DC power connection



DC Power with PMU

The TB8100 PMU is designed to accept a nominal 12 VDC, 24 VDC or 48 VDC input (depending on the model) with negative or positive ground. There is a minimum DC start-up threshold to prevent damaging a battery which has little capacity left.

You must connect the DC supply from the battery to the PMU via a fuse or DC-rated circuit breaker with the appropriate rating, as shown in the table

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below. The DC input leads should be of a suitable gauge to ensure less than 0.2V drop at maximum load over the required length of lead.

Nominal Supply Voltage	Input Voltage Range	Circuit Breaker/ Fuse Rating	Recommended Wire Gauge[a]
12VDC	10VDC to 16.8VDC	60A	2AWG / 35mm^2
24VDC	20VDC to 33.6VDC	30A	5AWG / 16mm^2
48VDC	40VDC to 60VDC	15A	8AWG / 8mm^2

a. For a length of 1.5m to 2m (5ft to 6.5ft) (typical).

Terminate and insulate the DC input leads so they are protected from accidentally shorting to the subrack if the PMU is removed before the leads are disconnected.

DC Power with 12V PA

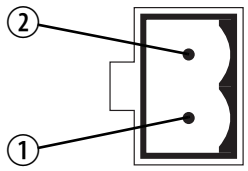
The TB8100 12V PA is designed to accept a nominal 12VDC input with negative ground. There is a minimum DC start-up threshold to prevent damaging a battery which has little capacity left.

You must connect the DC supply from the battery to the PA via a fuse or DC-rated circuit breaker with the appropriate rating, as shown in the table below. The DC input leads should be of a suitable gauge to ensure less than 0.2V drop at maximum load over the required length of lead.

Nominal Supply Voltage	Input Voltage Range	Circuit Breaker/ Fuse Rating	Recommended Wire Gauge[a]
12VDC	10.6VDC to 16.8VDC	15A to 18A	8AWG / 8mm^2

a. For a length of 1.5m to 2m (5ft to 6.5ft) (typical).

The pin allocations for the 2-way DC input connector are shown below.



2-way connector - external view

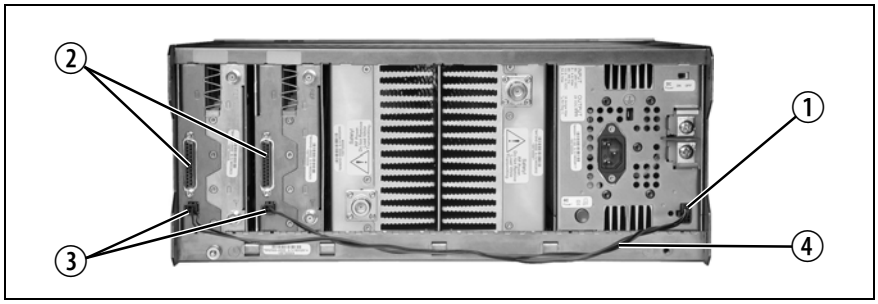
Pin	Description
1	+V input
2	ground

7.2.3 Auxiliary DC Power

PMU Auxiliary DC Output

The PMU can provide an auxiliary DC output when it is fitted with the optional auxiliary power supply board. This board is available with an output of 13.65 VDC, 27.3 VDC, or 54.6 VDC (depending on the model), and is current limited to 3 A, 1.5 A or 750 mA respectively. This optional power supply is available on the auxiliary DC output connector ① on the rear panel. DC from this output can be supplied to the +AUX_V pin on the system interface connector ② on the reciter via the auxiliary DC input connector ③ on the system interface board (see "Reciter Auxiliary DC Input from PMU" below). The auxiliary DC power cables ④ are described in "Auxiliary DC Power Supply Connections" on page 110.

Figure 7.10 Auxiliary DC power supply connections



The auxiliary power supply is configured with the Service Kit (Configure > Base Station > Miscellaneous > Power configuration > Auxiliary power control). Its operation can be controlled by Task Manager statements, for example:

IF **Digital input 01 active** THEN **Enable auxiliary supply**.

Refer to the Service Kit documentation for more details.

We do not recommend connecting two or more auxiliary power supply boards in parallel to increase the current supply to external equipment. In this situation, the auxiliary board with the highest voltage will try to supply all the current required, until it goes into current limit and the voltage reduces to the level where another board will begin to supply power. Running an auxiliary board continuously in current limit will reduce its life span and reliability. Also, if one auxiliary board fails or is switched off when a base station is powered down for some reason, the remaining auxiliary boards will be unable to supply the required current and will go into current limit, possibly causing the external equipment to shut down.

It is, however, acceptable to connect two or more auxiliary power supply boards in parallel (e.g. for redundancy), as long as the current consumption of the external equipment is less than the rating of one board. This means that, even if only one auxiliary board is functioning, it will still be able to supply the current requirements of the external equipment.

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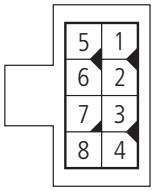
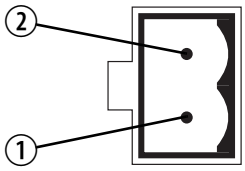
Two different types of auxiliary DC output connector have been fitted to the PMU. The pin allocations for the 8-way connector fitted to PMUs manufactured before August 2004 are given in the following table. Note that pins 1 to 4 and pins 5 to 8 on this connector are linked.

	Pin	Description	Links
 8-way connector - external view	1	+V output	
	2	+V output	
	3	+V output	
	4	+V output	
	5	ground	
	6	ground	
	7	ground	
	8	ground	

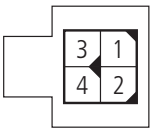
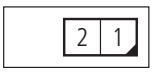
The pin allocations for the 2-way connector fitted to PMUs manufactured from August 2004 onwards are given in the following table.

	Pin	Description
 2-way connector - external view	1	+V output
	2	ground

Reciter Auxiliary DC Input from PMU

The system interface board in the reciter has an auxiliary DC input connector. DC from the auxiliary DC output on the PMU can be supplied to the +AUX_V pin on the system interface connector via this input (see "PMU Auxiliary DC Output" above).

The pin allocations for the auxiliary DC input on the system interface board are given in the following table. Older boards use the 4-way connector, while the TaitNet RS-232 board and all other boards manufactured after March 2005 use the 2-way connector. Note that pins 1 & 3 and pins 2 & 4 on the 4-way connector are linked. Refer to "System Connections" on page 112 for the pin allocations for +AUX_V on each system interface board.

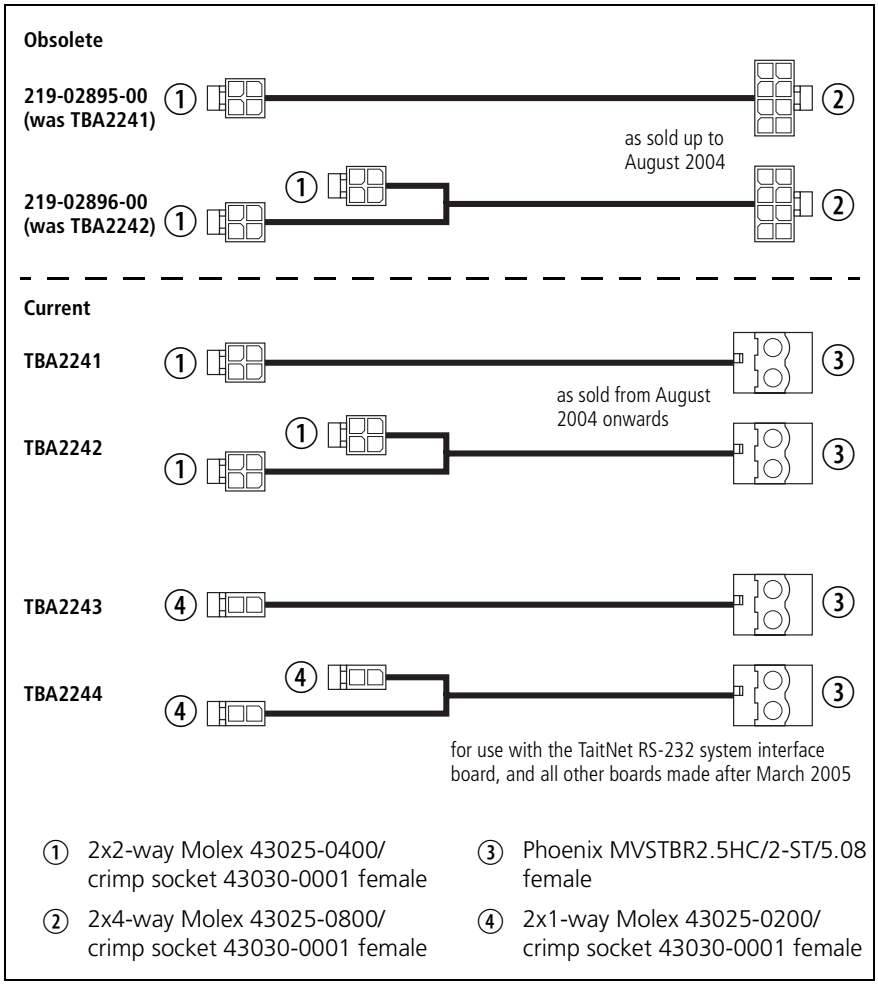
	Pin	Description	Links
 4-way connector - external view	1	+V input	
	2	ground	
	3	+V input	
	4	ground	
 2-way connector - external view			

The DC output from the PMU is 13.65 VDC, 27.3 VDC, or 54.6 VDC (depending on the model). Although this power output is isolated, the negative side of the supply is grounded on the system interface board to give a +V output.

Auxiliary DC Power Supply Connections

Figure 7.11 below shows the standard Tait auxiliary DC power cables available. Details of the individual connector types are also provided in case you want to make up your own cables.

Figure 7.11 Auxiliary DC power cables



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Note that the PMU connector used in the TBA2241 and TBA2242 cables was changed in August 2004 to match the change of connector in the PMU. The old cables are still available under Tait part numbers 219-02895-00 (single) and 219-02896-00 (double). Contact your nearest Tait Dealer or Customer Service Organisation for details on the full range of wiring kits available.

7.3 RF Connections

RF Input and Output

The RF input to the TB8100 BSS is via the lower BNC/TNC connector on the rear panel of the reciter. The RF output is via the N-type connector on the rear panel of the PA (refer to Figure 7.4 on page 103).

We recommend that you use dual-screened coaxial cable such as RG223 for the BNC/TNC connections, and RG214 for the N-type connections.

When the base station is used in simplex mode using a single antenna with a coaxial changeover relay, the isolation of this relay must be ≥40 dB.

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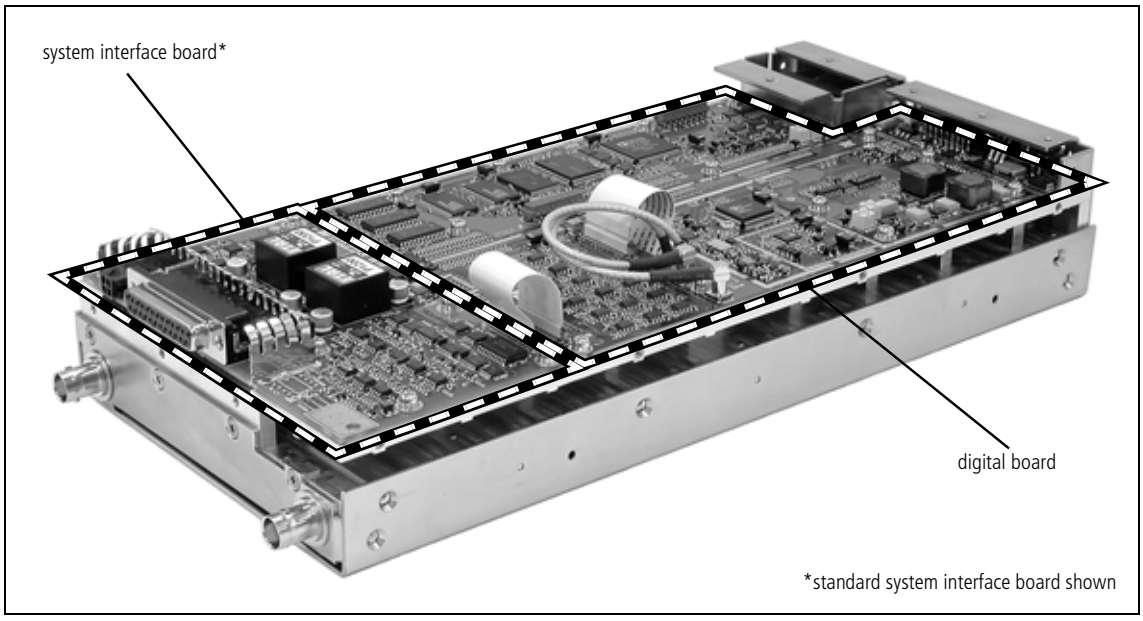
7.4 System Connections

The reciter can be fitted with an optional system interface board which provides the links between the reciter's internal circuitry and external equipment. This board is securely mounted to the reciter's chassis and is connected to the digital board with a flexible connector. The system interface board is fitted with industry-standard connectors and several standard types are available for different applications.

The circuitry on the system interface board provides additional signal processing so that the outputs meet standard system requirements. It also enables the board to identify itself to the reciter control circuitry. The system interface board is removable, which makes it possible to change the application of a reciter by removing one type of board and fitting another. Only one system interface board can be fitted to a reciter at any one time.

This section provides details on the system interface boards available at the time of publication. Other types may be developed for future applications.

Figure 7.12 System interface board



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7.4.1 Digital Interface

The system interface board provides several different types of digital interface connections. The type and number of connections available depends on the type of system interface board. These connections are described in "System Interface Connections" on page 114, and also in the Service Kit (Configure > Base Station > System Interface). For details on the interface levels for these connections refer to the Specifications Manual.

The digital interface signals supported by the TB8100 base station are described below.

Digital Inputs

Digital inputs are read by the reciter RISC and can be used to perform various actions based on the configuration of the reciter. The two major uses for digital inputs are Channel Change and Task Manager. For example, to send a status email when the status of a digital input line is changed, you can use the following Task Manager statement: IF **Digital input 01 active** THEN **Email status now**.

Digital Outputs

All digital outputs are controlled by Task Manager statements. For example, when any enabled base station alarm goes active, you can indicate this by turning on digital output 1 with the following Task Manager statement: IF **Base station alarm on** THEN **Activate digital output 1**.

Note Digital outputs 1 and 2 on the reciter may be active while the TB8100 base station is powering up. This applies to reciters fitted with a version 0 (zero) system interface board, but does not apply to reciters fitted with a TaitNet RS-232 system interface board. If this will cause problems for external equipment connected to the base station, disconnect the system interface connector when resetting the base station. To check the version of a system interface board, run the Service Kit and select Monitor > Module Details > Reciter. In the **Versions** area, the **System Interface** field displays the version number.

Bidirectional Inputs/ Outputs

Bidirectional signals can operate as either digital inputs or digital outputs, based on how Task Manager is configured. Bidirectional signals use the same processes described above to set and read the status of digital inputs and outputs. When a bidirectional pin has its output activated, a reading of that pin will reflect the current status on that line. Thus, it is possible to use a bidirectional pin for input-only or output-only actions, if only that specific action is configured for that digital pin number in Task Manager.

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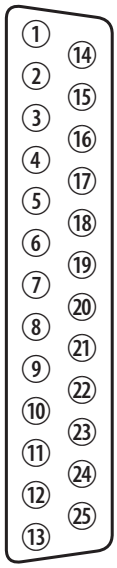
7.4.2 System Interface Connections

Standard

The standard system interface board is fitted to reciters bearing the product code TBA4xxx-0A0x. If purchased separately, it has the product code TBA10A0. It provides the following:

■ non-isolated 600Ω balanced audio I/O ■ high impedance unbalanced audio I/O ■ digital I/O (2 outputs, 6 inputs, 4 bi-directional)	■ Tx key ■ Tx relay ■ Rx gate ■ RSSI

It is fitted with a 25-way female D-range connector and a 4-way auxiliary DC input connector. The pin allocations for the D-range are listed in the table below, and the pin allocations for the DC input connector are provided in "Reciter Auxiliary DC Input from PMU" on page 109.



external view

Pin	Signal Name	Signal Type	Notes
1	Rx line out +	audio output	non-isolated AC coupled line
2	Rx line out –		
3	Rx audio out	audio output	AC coupled
4	ground	ground	
5	Tx audio in	audio input	AC coupled
6	Tx line in +	audio input	non-isolated AC coupled line
7	Tx line in –		
8	RSSI	DC signal	
9	Rx gate	output	open collector
10	Tx key	input	active low
11	digital out 1[a]	output	open collector
12	digital out 2		
13	+AUX_V	power output	from auxiliary DC input
14	digital in 1	input	5V TTL logic active low
15	digital in 2		
16	digital in/out 3[b]		
17	digital in/out 4[b]		
18	digital in/out 5[b]		
19	digital in/out 6[b]		
20	digital in 7		
21	digital in 8		
22	digital in 9		
23	digital in 10		
24	Tx relay	output	open collector
25	ground	ground	

a. If a base station with a 12V PA is configured for Deep Sleep, digital out 1 is dedicated to Power Saving control and should not be used for any other Task Manager function.

b. On version 1 and later system interface boards, digital inputs 3, 4, 5, and 6 may also be configured as outputs using a Task Manager statement. For more details refer to "Digital Interface" on page 113 and to the Service Kit documentation.

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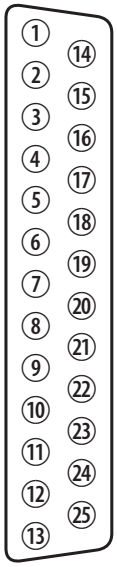
Isolated

This system interface board is fitted to reciters bearing the product code TBA4xxx-0B0x or TBA5xxx-0B0x. If purchased separately, it has the product code TBA10B0. It is the same as the standard model, except that the balanced audio interfaces are galvanically (transformer) isolated. It provides the following:

■ transformer isolated 600Ω balanced audio I/O ■ high impedance unbalanced audio I/O ■ digital I/O (2 outputs, 6 inputs, 4 bi-directional)	■ Tx key ■ Tx relay ■ Rx gate ■ RSSI

It is fitted with a 25-way female D-range connector and a 4-way auxiliary DC input connector. The pin allocations for the D-range are listed in the table below, and the pin allocations for the DC input connector are provided in "Reciter Auxiliary DC Input from PMU" on page 109.



external view

Pin	Signal Name	Signal Type	Notes
1	Rx line out +	audio output	transformer isolated line
2	Rx line out –		
3	Rx audio out	audio output	AC coupled
4	ground	ground	
5	Tx audio in	audio input	AC coupled
6	Tx line in +	audio input	transformer isolated line
7	Tx line in –		
8	RSSI	DC signal	
9	Rx gate	output	open collector
10	Tx key	input	active low
11	digital out 1[a]	output	open collector
12	digital out 2		
13	+AUX_V	power output	from auxiliary DC input
14	digital in 1	input	5V TTL logic active low
15	digital in 2		
16	digital in/out 3[b]		
17	digital in/out 4[b]		
18	digital in/out 5[b]		
19	digital in/out 6[b]		
20	digital in 7		
21	digital in 8		
22	digital in 9		
23	digital in 10		
24	Tx relay	output	open collector
25	ground	ground	

a. If a base station with a 12V PA is configured for Deep Sleep, digital out 1 is dedicated to Power Saving control and should not be used for any other Task Manager function.

b. On version 1 and later system interface boards, digital inputs 3, 4, 5, and 6 may also be configured as outputs using a Task Manager statement. For more details refer to "Digital Interface" on page 113 and to the Service Kit documentation.

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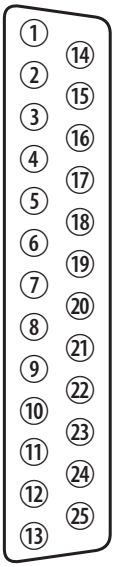
Isolated E&M

This system interface board is fitted to reciters bearing the product code TBA4xxx-0C0x or TBA5xxx-0C0x. If purchased separately, it has the product code TBA10C0. It provides the following:

■ transformer isolated 600Ω balanced audio I/O ■ opto-isolated keying ■ opto-isolated gate output ■ digital I/O (2 outputs, 2 inputs, 4 bi-directional)	■ Tx key ■ Tx relay ■ Rx gate ■ RSSI

It is fitted with a 25-way female D-range connector and a 4-way auxiliary DC input connector. The pin allocations for the D-range are listed in the table below, and the pin allocations for the DC input connector are provided in "Reciter Auxiliary DC Input from PMU" on page 109.



external view

Pin	Signal Name	Signal Type	Notes
1	Rx line out +	audio output	transformer isolated line
2	Rx line out –		
3	Rx audio out	audio output	
4	audio ground	ground	
5	Tx audio in	audio input	
6	Tx line in +	audio input	transformer isolated line
7	Tx line in –		
8	RSSI	DC signal	
9	Rx gate	output	open collector
10	Tx key	input	active low
11	digital out 1[a]	output	open collector
12	digital out 2		
13	+AUX_V	power output	from auxiliary DC input
14	digital in 1	input	5V TTL logic active low
15	digital in 2		
16	digital in/out 3[b]		
17	digital in/out 4[b]		
18	digital in/out 5[b]		
19	digital in/out 6[b]		
20	opto +/–	isolated keying input	input voltage range 10VDC to 60VDC
21	opto –/+		
22	relay +/–	isolated gate output	
23	relay –/+		
24	Tx relay	output	open collector
25	ground	ground	

a. If a base station with a 12V PA is configured for Deep Sleep, digital out 1 is dedicated to Power Saving control and should not be used for any other Task Manager function.

b. On version 1 and later system interface boards, digital inputs 3, 4, 5, and 6 may also be configured as outputs using a Task Manager statement. For more details refer to "Digital Interface" on page 113 and to the Service Kit documentation.

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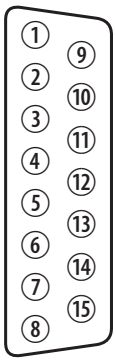
TaitNet

This system interface board is fitted to reciters bearing the product code TBA4xxx-0T1x. If purchased separately, it has the product code TBA10T1. It is designed for use with MPT trunking systems. It provides the following:

■ transformer isolated 600Ω balanced audio I/O ■ high impedance unbalanced audio I/O ■ digital I/O (3 outputs, 1 input)	■ Tx key ■ Rx gate

It is fitted with a 15-way female D-range connector and a 4-way auxiliary DC input connector. The pin allocations for the D-range are listed in the table below, and the pin allocations for the DC input connector are provided in "Reciter Auxiliary DC Input from PMU" on page 109.



external view

Pin	Signal Name	Signal Type	Notes
1	Rx line out +	audio output	transformer isolated line
2	Rx line out –		
3	Rx audio out	audio output	
4	Rx gate	output	open collector
5	Tx key	input	
6	Tx audio in	audio input	
7	Tx line in +	audio input	transformer isolated line
8	Tx line in –		
9	+AUX_V	power output	from auxiliary DC input
10	digital out 3	output	open collector
11	no connection		
12	digital out 1[a]	output	open collector
13	digital out 2		
14	digital in 1	input	5V logic
15	ground	ground	

a. If a base station with a 12V PA is configured for Deep Sleep, digital out 1 is dedicated to Power Saving control and should not be used for any other Task Manager function.

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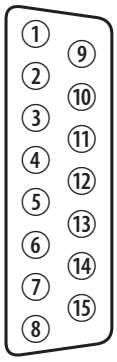
TaitNet RS-232

This system interface board is fitted to reciters bearing the product code TBA4xxx-0L0x or TBA5xxx-0L0x. If purchased separately, it has the product code TBA10L0. It is designed for use with MPT trunking systems, and also for use with multiple base station systems. It provides the following:

■ transformer isolated 600Ω balanced audio I/O ■ high impedance unbalanced audio I/O ■ digital I/O (3 outputs, 1 input)	■ Tx key ■ Rx gate

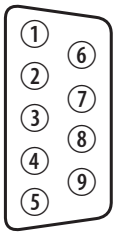
It is fitted with a 15-way female D-range connector (TaitNet), a 9-way female D-range connector (RS-232), and a 2-way auxiliary DC input connector. The pin allocations for the D-ranges are listed in the following tables, and the pin allocations for the DC input connector are provided in "Reciter Auxiliary DC Input from PMU" on page 109.



external view

Pin	Signal Name	Signal Type	Notes
1	Rx line out +	audio output	transformer isolated line
2	Rx line out –		
3	Rx audio out	audio output	
4	Rx gate	output	open collector
5	Tx key	input	
6	Tx audio in	audio input	
7	Tx line in +	audio input	transformer isolated line
8	Tx line in –		
9	+AUX_V	power output	from auxiliary DC input
10	digital out 3	output	open collector
11	no connection		
12	digital out 1[a]	output	open collector
13	digital out 2		
14	digital in 1	input	5V logic
15	ground	ground	

a. If a base station with a 12V PA is configured for Deep Sleep, digital out 1 is dedicated to Power Saving control and should not be used for any other Task Manager function.



external view

Pin	Description	Links
1	not connected	●
2	receive data	|
3	transmit data	|
4	not connected	●
5	ground	|
6	not connected	●
7	not connected	●
8	not connected	●
9	not connected	

The rear-mounted RS-232 serial port facilitates the connection of multiple base stations to a Service Kit or Alarm Center using an APS (asynchronous

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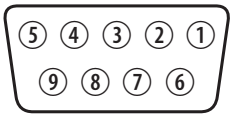
port switch) and modem or radio modem. Refer to TN-906 for more details on using an APS with TB8100 base stations.

7.5 Service Kit Connections

The TB8100 Service Kit is connected to the BSS via the RS-232 serial port on the control panel. This port is a 9-way female D-range connector. Use a straight through cable, as supplied with the Service Kit, to connect your programming computer to the BSS. The pin allocations for the serial port are given in the following table. Note that pins 1, 4 & 6 and pins 7 & 8 are linked. This port is also used for remote connection to the Service Kit or Alarm Center software via a modem or radio modem.



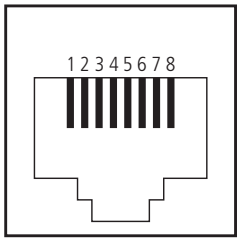
external view

Pin	Description	Links
1	not connected	
2	receive data	
3	transmit data	
4	not connected	
5	ground	
6	not connected	
7	not connected	
8	not connected	
9	not connected	

Note When a reciter fitted with a TaitNet RS-232 system interface board is used in a TB8100 BSS, the RS-232 port on the control panel is disabled. In this situation you must connect to the RS-232 port at the rear of the reciter. Refer to "TaitNet RS-232" on page 118 for more details.

7.6 Microphone Connection

You can connect a microphone to the TB8100 BSS via the standard RJ45 socket on the control panel. If a standard TB8100 microphone has not been supplied with your BSS, you should use an electret microphone. The pin allocations for the microphone socket are given in the following table.



external view

Pin	Description
1	not connected
2	not connected
3	not connected
4	PTT
5	voice band (microphone) input
6	microphone ground
7	not connected
8	not connected

7.7 12V PA Power Saving Control Connection

To enable Power Saving in the 12V PA, you must connect digital out 1 on the reciter's system interface connector to pin 1 of the Power Saving control connector on the rear panel of the PA. Once this connection is made, the PA will shut down whenever the reciter goes into Deep Sleep mode. For more information on the operation and configuration of Power Saving, refer to "Power Saving" on page 53.

Note When a base station with a 12V PA is configured for Deep Sleep, digital out 1 is dedicated to Power Saving control and should not be used for any other Task Manager function.

Two ways of making the Power Saving control connection between the 12V PA and reciter are described below. The circled numbers in the following instructions refer to Figure 7.13 on page 121.

Method 1

1. Connect one end of the Power Saving control cable ① (Tait part number 219-02971-00) to the Power Saving control connector ② at the rear of the PA. Connect the other end to the auxiliary DC input connector ③ at the rear of the reciter.

Note If you are using an older reciter with a 4-way connector, you will need to use Method 2.

2. On the D-range plug that is fitted to the system interface connector ④ on the reciter, link digital out 1 to +AUX_V.

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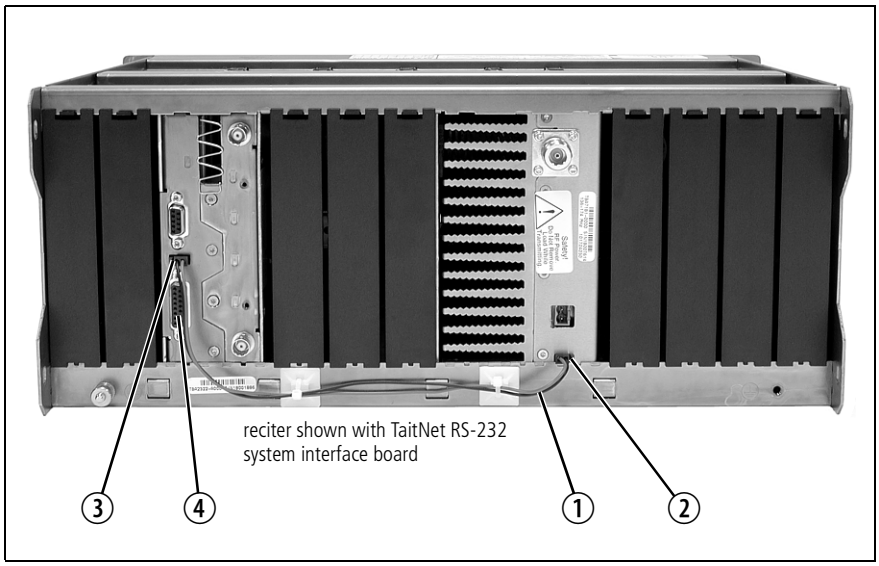
Method 2

1. Connect one end of the Power Saving control cable ① to the Power Saving control connector ② at the rear of the PA.

2. Cut the socket off the other end of the cable. Connect the wires directly to the D-range plug fitted to the system interface connector ④ as follows:
   - red - digital out 1
   - black - ground.

Figure 7.13 Fitting the Power Saving control cable to a 12V PA



The pin allocations for the Power Saving control connector on the PA are given in the following table.

	Pin	Signal Name	Signal Type	Notes
2 1 external view	1	PA shutdown	input	active low
	2	ground	ground	

If you wish to make up your own cable, use the following connector for both the PA and reciter connections:

- 2x1-way Molex 43025-0200/crimp socket 43030-0001 female.

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