Bowers & Wilkins

1 Controlling DB1 via the RS-232 Port

1.1 Location

The DB1 can be controlled via the RS-232 port, which uses a standard D9 female connector.

The RS-232 port is located on the rear connector panel.

1.2 RS-232 Communication Parameters

The RS-232 parameter settings are:

- 9600 baud
- 8 data bits
- no parity
- 1 stop bit
- no handshaking (flow control)

1.3 Command Protocol

The DB1 can be controlled by sending strings of characters via the service port.

Every string consists of:

- The command **set** or **get**
- One or more decimal digits that specify the parameter to be changed
- For the **set** command: one or more digits that specify the parameter value
- <CR> (the ASCII carriage return character, 13 decimal)
- <LF> (optional – the ASCII line feed character, 10 decimal)

The DB1 replies to a valid command with: **! <CR><LF>**

This reply may be followed by another message containing information if that was requested by a **get** command.

For an invalid command, the DB1 replies: **? <CR><LF>**

1.4 Command List

Each command string should be terminated with <CR> and optionally <LF>. In the tables of commands and responses below, the ASCII space character (32 decimal) is indicated by <SP>

The following commands are used to request information from the DB1:

Command	Description	Reply from DB1
get<SP>6	Requests a string describing the model	!<CR><LF> SY<SP>VALU<SP>"DB1"<CR><LF>
get<SP>7	Requests the software version	!<CR><LF> SY<SP>VALU<SP>"n.n.n.n"<CR><LF> where n represents one or more decimal digits 0..9
get<SP>148	Requests the DSP version	!<CR><LF> SY<SP>VALU<SP>"n.n.n.n"<CR><LF> where n represents one or more decimal digits 0..9
get<SP>5	Requests the operating state.	!<CR><LF> SY<SP>VALU<SP>m<CR><LF> where m = 0 indicates standby m = 2 indicates normal operation
get<SP>36	Requests the volume trim setting	!<CR><LF> SY<SP>VALU<SP>m<CR><LF> where m = -6..6 dB
get<SP>91	Requests the current preset number	!<CR><LF> SY<SP>VALU<SP>m<CR><LF> where m = 1..5

The following commands control the operation of the DB1:

Command	Description
set<SP>0<SP>0	Go to standby
set<SP>0<SP>1	Go to power on
set<SP>3<SP>k	Select preset k+1 where k = 0..4 (ie k = 2 selects preset 3)
set<SP>36<SP>v	Select volume trim v where v = -6..6 dB NB Volume trim is used to fine tune individual programme items. It is separate from all gains within the main setup procedure. The value is volatile and reset to zero when the DB1 is switched to standby.

The following messages are sent automatically by DB1:

Message from DB1	Description
<NUL> SY<SP>PWRUP<CR><LF> SY<SP>STBY<CR><LF>	Mains power has been connected. where <NUL> represents the ASCII value 0
SY<SP>STBY<CR><LF>	The DB1 has been set to standby.
SY<SP>OPER<CR><LF>	The DB1 has been set to power on.