

PH9 RS232 Interface Commands

The PH9 can be controlled via an RS232 interface. The connector is a female DB9 with Pin 2 TX out, Pin 3 RX in and Pin 5 ground. The serial settings are 9600 baud, 8 data bits, 1 stop bit, no parity and no handshaking.

All commands are shown in the table below. The unit echoes back all characters as they are received. A command line is terminated with a line feed (0x0A). Carriage returns may be present (0x0D) and are ignored. Commands that take numerical values as a parameter are shown as minimum and maximum values between parentheses, i.e. auto shutdown (1 to 8). Commands ending in a question mark are status inquiries; they will return the current value of the requested item.

If a command is accepted the response will be ACK --> along with an echo of the request and the current value.

If a command is not accepted the response will be NACK-> along with an echo of the request.

All responses are terminated with carriage return and linefeed (0x0D 0x0A).

The response may be multiline for some status requests.

After the POWER ON command is issued the unit will be in warm up. During this time the unit will be muted. If a MUTE OFF command is received during this time the response will be ACK--> MUTE ON. The request will be come out of mute is remembered and the unit will unmute when the warm up time is over.

When the unit is in the POWER OFF mode some commands will return NACK-> as they cannot be performed when the unit is off.

As the input buffer is small commands should only be sent on at a time.

Below is a table of all commands:

RS232 Command	Action
POWER ON	Turns on the unit
POWER OFF	Turns off the unit
POWER TOGGLE	Toggles the power state
MUTE ON	Turns on the mute
MUTE OFF	Turns off the mute
MUTE TOGGLE	Toggles the mute state
MONO ON	Turns on mono mode
MONO OFF	Turns off mono mode
MONO TOGGLE	Toggles mono mode
DISPLAY UP	Moves the display setting one step forward in the

	display brightness loop
DISPLAY DOWN	Moves the display setting one step backward in the display brightness loop
DISPLAY DIM	Sets the display to the dimmest level
DISPLAY NORMAL	Sets the display to normal level
LOAD SET 100	Selects the 100 ohm load
LOAD SET 200	Selects the 200 ohm load
LOAD SET 500	Selects the 500 ohm load
LOAD SET 1000	Selects the 1000 ohm load
LOAD SET 47K	Selects the 47K ohm load
AUTOSHUTDOWN ON (1 - 8)	Sets the number of hours before auto shutdown.
AUTOSHUTDOWN OFF	Sets auto shutdown off
SET FACTORY DEFAULTS	Restores the remembered settings to the factory default values
STATUS ALL ?	Returns the status of the all the settings except renamed inputs
VERSION ?	Returns the firmware version
POWER ?	Returns the power state
MUTE ?	Returns the mute state
MONO ?	Returns the mono mode
DISPLAY ?	Returns the display brightness setting
LOAD ?	Returns the load setting for phono
TUBE HOURS ?	Returns the tube hours
AUTOSHUTDOWN ?	Returns the auto shutdown setting

Sent on initial AC power application to unit:

```
REF PH9 Version 1.00
STATUS ALL
POWER ON
MUTE ON
MONO OFF
DISPLAY 4
LOAD 100
TUBE HOURS 10
AUTOSHUTDOWN 1 HOUR
```

Example of some commands and responses:

```
POWER ?
ACK--> POWER ON
```

```
LOAD ?
```

ACK--> LOAD 100

LOAD SET 200

ACK--> LOAD 200

An Invalid request, no space between ALL and ?:

STATUS ALL?

NACK-> STATUS ALL?

Multiline responses:

STATUS ALL ?

ACK--> STATUS ALL

POWER OFF

MUTE ON

MONO OFF

DISPLAY 4

LOAD 100

TUBE HOURS 1

AUTOSHUTDOWN 1 HOUR