

RS-232 to DMX converter

Operation:

On power-up, unit begins transmitting DMX with all 0 levels. Red power LED should be on. The DMX signal LED has no function (D4). The output LED (D2) will flash while the unit is sending a response out of the 232 port. This is a very brief flash.

Protocol is RS-232 at 9600 baud, 1 start bit, 8 data bits, no parity, 1 stop bit. Data comes into the interface on pin 2 of the DB9 connector. Responses come out from pin 3 of the DB9. Pin 5 is the common. No other pins are connected.

There are two commands available; setting levels and getting levels. Each is described below along with the response from the interface.

Setting a level

This command allows the user to set the level of a single DMX output channel. The characters are all in ASCII text format (including the "@" symbol). There are no spaces and the command terminates with a carriage return (CR). The carriage return is the trigger for the interface to parse the command and act on it.

Format:

{3 digit channel #} @ {3 digit level #} (CR)

The channel number must be in the range of 001 - 512. Leading zeros are required. The level number must be in the range of 000 - 255. Leading zeros are required.

Example:

Setting channel 53 to a level of 116

[0] [5] [3] [@] [1] [1] [6] [CR]

Response

OK [CR]

The response to this command is OK followed by a carriage return. If there are any errors in the format, the interface will return a question mark (?) followed by a carriage return and no action is taken.

Getting a level

This command allows the user to query the interface about the level of a particular channel. All characters are ASCII text format. There are no spaces allowed and the command terminates in with a carriage return (CR). The carriage return is the trigger for the interface to parse the command and act on it.

Format:

{3 digit channel #} ? (CR)

The channel number must be in the range of 001 - 512. Leading zeros are required.

Example:

Getting the currently set level for channel 53

[0] [5] [3] [?] [CR]

Response

116 [CR] (assuming level from first example)

OK [CR]

The response to this command is the level for channel 53 as a 3 digit ASCII representation followed by a carriage return (CR). This is followed by OK and another carriage return. If there are any errors in the format, the interface will return a question mark (?) followed by a carriage return and no action is taken.

Sending a carriage return by itself with no prior data entered returns OK followed by a carriage return.