

Installation Instructions

1 Zone DMX512 PSU

Wall Mounted

Supplied Items

- 1 x Wall Mount BS-PS1-D
- Mounting Hardware
- Instruction Leaflet

Introduction

The BS-PS1-D is a single zone DMX power supply for the BlueDome and BlueBeam range of light fittings. The outputs are protected from overload and short circuits by a user changeable fuse located inside the unit.

Conformity

The BlueDome and BlueBeam range of power supplies conform to the following standards:

EN 61000-6-3 Light Industrial Emissions
EN 61000-4-2 Heavy Industrial Immunity
EN 60945 Marine



Further information can be obtained from technical@gds.uk.com

Installation

THIS UNIT MUST BE EARTHED. The BS-PS1-D should be mounted in a dry location away from any sources of heat. A fused spur should feed mains to the unit.

The BS-PS1-D casing has a number of 20mm knockouts for cable glands or conduit.

Electrical Properties

- | | |
|---------------------------|----------------|
| • Input Voltage: | 85-264V AC |
| • Input Frequency: | 47-63Hz |
| • Nominal Output Voltage: | 12V DC |
| • Maximum Load: | 10 Beams/Domes |

The control PCB inside the BS-PS1-D has 2 output connectors labelled PWR, GND and CTRL. These connect to the corresponding terminals on the BlueDome/Beam. The DMX input is located to the right of the PCB. There is also a DMX THRU connector to allow you to easily loop the DMX on to other units.

Operation

The BS-PS1-D will accept either a standard DMX-512 control signal from a lighting controller, or the Blues System protocol.

DMX 512

To use the BS-PS1-D in DMX mode, simply set the address on the module to the DMX channel you want it to operate from. When the module is receiving valid DMX data, the DATA LED will illuminate.

Advanced Options – DMX Loss Behaviour

The BS-PS1-D has 3 options that can be set to change the behaviour of the output upon loss of DMX. These can be set and stored in the unit at any time during installation or commissioning.

To set these options simply set the encoder wheels to one of the following addresses and power the unit up.

Address	Function
901: -	This will be factory standard which is hold last value.
911: -	This will drive the channel to full on DMX loss.
921: -	This will fade the channel down to 0% upon DMX loss.
931: -	This will put the card into Minimum Level Capture mode**

The BS-PS1-D will now store the new operating mode in memory. Now simply set the address to the required DMX address and the PSU is ready for operation.

(Advanced Options)**

Advanced Options – Minimum Level Capture

The BS-PS1-D has the ability to set the minimum output level. This simply stops the DMX signal from switching the outputs completely off. This can be useful for emergency fittings that are controlled by the BS-PS1-D, by preventing the DMX signal from driving the output below the set level.

To set the minimum output level of the BS-PS1-D, ensure the power is switched off and you have a DMX source connected to the unit.

Set the address of the BS-PS1-D to 931: - This will put the card into Minimum Level Capture mode.

Set your DMX source to output 0% on DMX channel 1.

Switch the power on, whilst the BS-PS1-D is in this mode it will respond to DMX channel 1 and output this level to the fittings. When you can see the desired level, simply turn the power supply off for 5 seconds and then on again. It will now capture the level on DMX channel 1 and store this as the new minimum level.

The unit should now be set to the required DMX address.

If a minimum level of 0% is required, simply set your DMX source to output 0% on channel 1 and repeat the procedure above.

Blues System Protocol (RS-485)

The Blues System Protocol may be used to control the power supply. In this mode you can daisy chain up to 10 modules and control them with one RS-485 port. The system can be controlled from an RS-232 device if a 485 to 232 converter is used.

To enable command mode set the hundreds encoder to 6. The other encoders are used to set the baud rate and unit address. When the module has received a valid command the DATA LED will blink.

Baud Rate

The baud rate is configured by setting the Tens encoder to one of the following values: -

0 = 9,600

1 = 19,200

2 = 38,400

Unit Address

The unit address is set with the Units encoder. You can have more than one unit set to the same address if required.

Protocol

All commands are encapsulated within curved brackets (). The command will be executed when the closing bracket gets received. A command is composed of a number of parameters, each of which comprises of an identifier, and a value. These don't need to be specified in any particular order.

'U' – This defines the unit number or address of the unit the command is destined for. Valid parameters for U are '0-9' and 'A', which specifies that all units should respond to the command. Examples are: 'U4' 'UA'

Commands without this parameter will be assumed to be 'UA'

'C' – This defines a channel within the unit. Acceptable values for this parameter are '1-6' and 'A', which refers to all channels within the unit. (the BS-PS1-D will only respond to '1' and 'A')
Commands without this parameter will be assumed to be 'CA'

'L' – This defines the level at which the channels in the command should be set to. Acceptable values for the channel are '0-255'. Leading zeros are acceptable, but no more than 3 characters should be sent.
Commands without this parameter will be ignored.

Fade time – The fade time can be specified either in tenths of a second, seconds or minutes.

'T' – Tenths of a second.

'S' – Seconds.

'M' – Minutes.

Only one must be specified per command, with a maximum of 3 digits following the character. If no time parameter is specified with the command, then the fade will snap.

Command Examples

(U1C4L255S1) – This will fade channel 4 on unit 1 to 255 over 1 second

(L56) – This will snap all channels on all units to level 56

(U3L0M60) – This will fade all the channels on unit 3 to 0 over 1 hour

Notes

A channel will fade from its current value to the specified value over the duration specified. If the channel is already fading, the current fade will be stopped and the new fade started from whatever value the last fade was stopped at.

