

ICELED

Electro Styling

DMX 512 Bridge User Guide

WARNING

This product has been designed to work exclusively with other ICELED light sources and controllers. When connected as recommended all components form part of a safety extra-low voltage (SELV) circuit. SELV circuits should only be connected to other SELV circuits.

Use of any power supply other than the approved transformer supplied is not permitted under the above conditions. The transformer is only suitable for indoor locations however certain IceLed light sources may also be suitable for use outdoors. Refer to individual product guides for details.

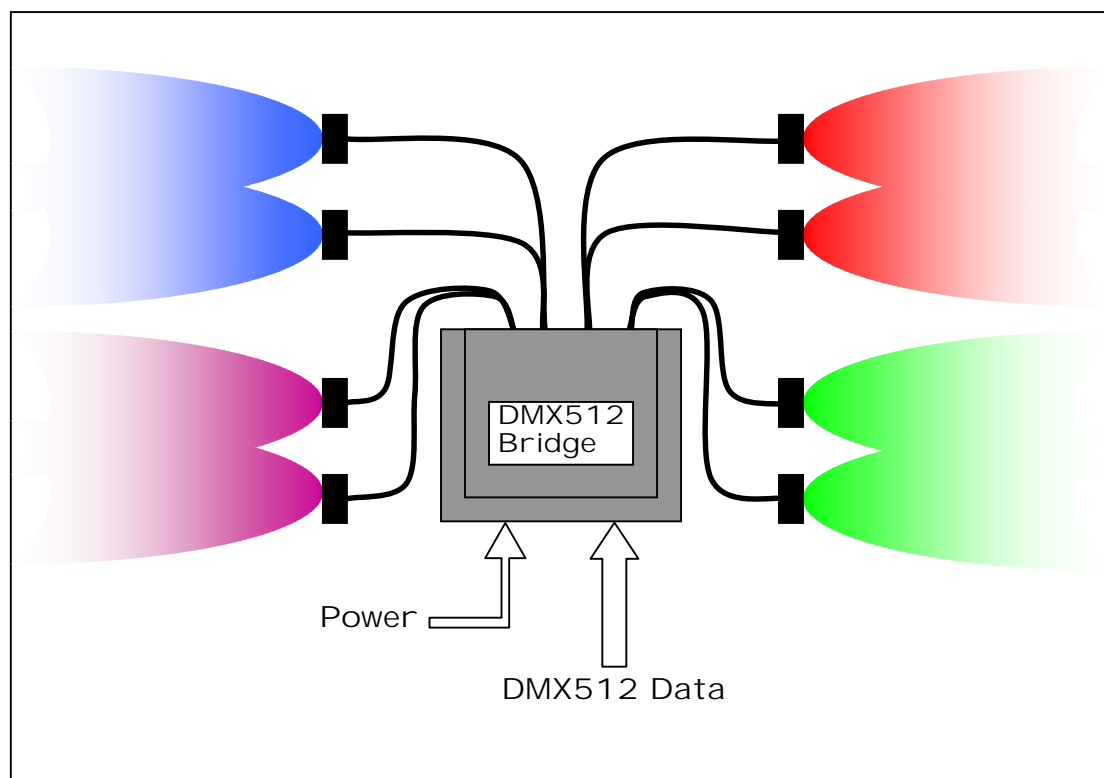
ICELED Ltd. Will not accept responsibility for any other issues arising from improper use or fitting of this product as these matters are beyond our control.

This product is capable of producing stroboscopic lighting effects when connected to IceLed light sources.

Features

This DMX512 Bridge can be used to address a number of ICELED light sources via the industry standard DMX512 lighting protocol. It serves as a distribution point for both power and data – greatly simplifying the task of installing and addressing multiple light sources.

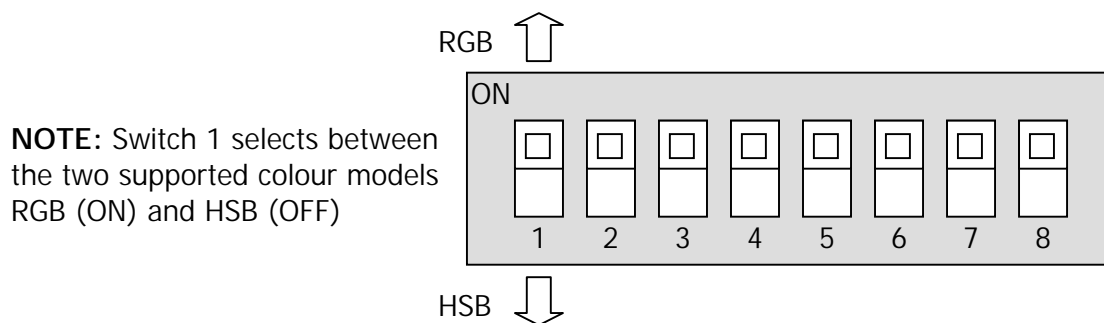
Four independent zones of control are available occupying a total of 12 sequential DMX channel addresses. Each zone is assigned three DMX channels to provide separate control over the individual colour components. For maximum programming flexibility one of two different *colour models* can be selected using a DIP switch: “Red, Green, Blue” or “Hue, Saturation, Brightness”.



Several ICELED light sources may be connected to each zone in parallel but care must be taken not to exceed the maximum combined current loading of 10 Amps (using a suitably rated power supply). So, for example, if only one zone is to be used then it may be used to supply all 10 Amps. See the user guides for each individual type of light source to be used to find their maximum current ratings.

DMX512 Addressing

The DMX base address for the bridge unit is selected using a DIP switch located on the underside of the case:



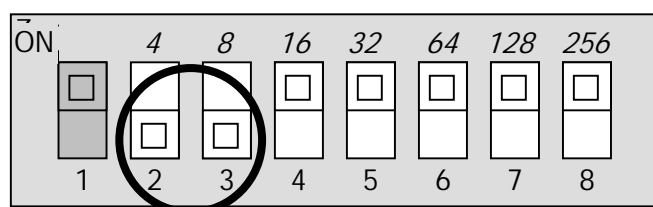
Switches 2 to 8 select between 128 different DMX base addresses in multiples of 4. To calculate the appropriate switch settings for a given channel note that each switch provides the following weightings **when moved away from the ON position**:

Switch	2	3	4	5	6	7	8
Weighting	4	8	16	32	64	128	256

The final DMX address will be 1 plus whatever weightings are supplied by the switches. So for example, with all switches set in the ON position the DMX base address will be just **1** resulting in the following table of DMX channel mappings:

Zone 1	DMX	Zone 2	DMX	Zone 3	DMX	Zone 4	DMX
R/H	1	R/H	4	R/H	7	R/H	10
G/S	2	G/S	5	G/S	8	G/S	11
B/B	3	B/B	6	B/B	9	B/B	12

To start addressing another bridge unit from the next available DMX address (channel 13) would require the following switch settings:

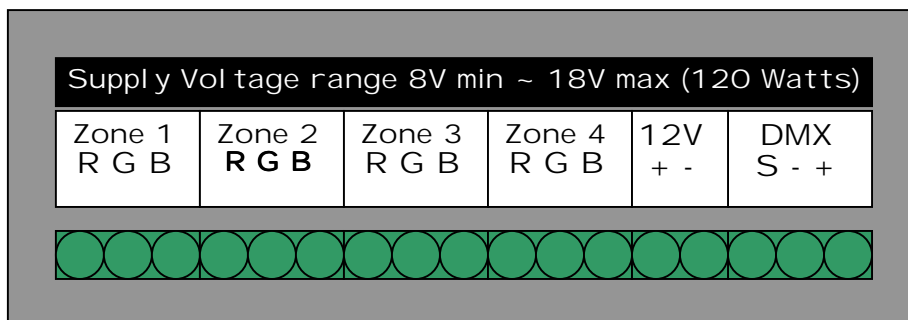


Switch 2 adds a weighting of 4
 Switch 3 adds a weighting of 8
 Added to 1 gives **13**

Resulting in the following DMX channel mappings:

Zone 1	DMX	Zone 2	DMX	Zone 3	DMX	Zone 4	DMX
R/H	13	R/H	16	R/H	19	R/H	22
G/S	14	G/S	17	G/S	20	G/S	23
B/B	15	B/B	18	B/B	21	B/B	24

Wiring Guide



R	Red	Key to connector symbols
G	Green	
B	Blue	
+	+8V to +18V DC Power supply	
-	Power supply return	
S	DMX512 Data cable shield	
-	DMX512 Data -ve	
+	DMX512 Data +ve	

Wiring the zones

The three-way connectors that terminate the Red Green and Blue wires from each of the four zones should be assembled so as to match-up with the lettering on the label directly above the connector. If more than one light source is to be connected to a zone then several wires may be twisted together and screwed down securely in the connector block.

Wiring the power supply

A two-way power plug will be pre-wired to the transformer lead (if supplied) and must only be inserted in the position shown on the label. Only DC supplies may be used with this bridge unit. Transformers used for low-voltage lighting are generally not suitable as they nearly always produce AC.

Wiring the DMX512 Data connection

The DMX512 twisted-pair cable should be prepared and wired to the three DMX terminals as shown on the label. To connect additional DMX512 devices to the line connect another length of twisted-pair cable in parallel with the incoming cable. If the bridge unit is the last device on the DMX512 line then a 120 Ohm resistor should be connected across the + and – data terminals to properly terminate the line.