

# Chroma-Q™ PS02

User Manual



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Chroma-Q reserves the right to change or make alteration to devices and their functionality without notice due to our on going research and development.

The Chroma-Q PS02 has been designed specifically for the professional entertainment lighting industry. Regular maintenance should be performed to ensure that the products perform well in the entertainment environment.

If you experience any difficulties with any Chroma-Q products please contact your selling dealer. If your selling dealer is unable to help please contact [support@chroma-q.com](mailto:support@chroma-q.com). If the selling dealer is unable to satisfy your servicing needs, please contact the following, for full factory service:

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## Approvals



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## 1. Product overview

The Chroma-Q PS02 supplies power and data to the Chroma-Q range of colour changers and compatible products (see below). A maximum capacity of 2PU (Power Units), it can receive signal via ANSI E1.11 USITT DMX512-A and deliver power and data via a XLR-4 output. No through connector is provided for DMX.

## 2. Operation

### Power

Connect power through a male IEC chassis connector with input power of 100-240V, 50-60 Hz.

### Data

Data input ANSI E1.11 USITT DMX512-A from an external source or lighting control console connects through a male XLR-5.

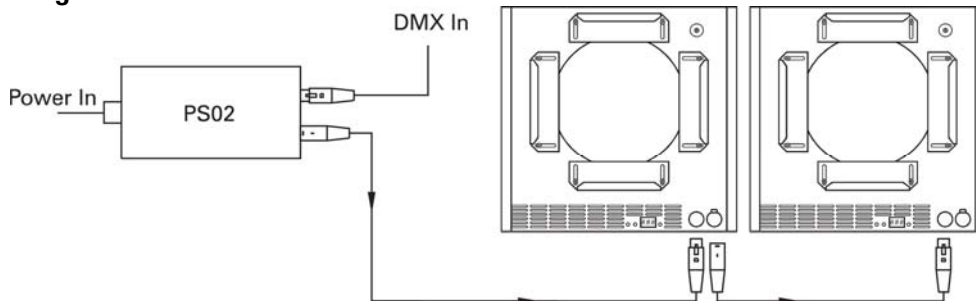
Connect power and data from the female XLR-4 output of the PS02 to the colour changer units.

### Load

To simplify the choice of power supply we use the "PU" (Power Unit) to calculate the load requirements of the Chroma-Q system. The PS02 will supply up to 2 PU's, so you can plug-in 2 Chroma-Q Plus (2 x 1PU = 2PU).

The PS02 has been designed for cable runs of up to 60m/200ft.

### System Diagram



### Compatibility

The Chroma-Q PS02 is compatible with all Chroma-Q colour changers - Chroma-Q Plus, Original, Broadway, Universal, Cascade, M5, M8, Moving Mirror, Twin Gobo Rotators, Twin Effects Gobo Rotator and Twin DMX Gobo Rotator.

### Power Units

Chroma-Q Product	Power Unit
Plus	1 PU
Broadway	1 PU
Cascade	1.5 PU
Universal	1.5 PU
M5	1.5 PU
M8	1.5 PU
Moving Mirror	1 PU
DMX Gobo Rotator	0.6 PU

### Control and Power Cables

The Chroma-Q utilises an XLR-4 pin cable system. This is used to supply power and data. Pins 1 and 4 supply 24VDC power and pins 2 and 3 supply ANSI E1.11 USITT DMX512-A control protocol with a ground drain wire to the connector shell.

Only genuine Tourflex Datasafe Cable is recommended for use of the Chroma-Q colour changing system.

Damage will occur if the power connections short circuit to the data or ground/shield connections. When assembling XLR4-pin cables, heat shrink sleeves should be used on each individual data pin and the drain wire to prevent short circuits.

The XLR-4 cable is wired pin to pin, in the following format:

Pin #	Function
1	0V DC
2	Control data minus
3	Control data plus
4	+24V DC
Chassis	Ground bonding

The XLR-5 cable is wired pin to pin, in the following format:

Pin #	Function
1	Ground (screen)
2	Data minus
3	Data plus
4	Spare data minus
5	Spare data plus