QUARTET 300

Features of the Quartet

- 1200W dichroic floodlight
- Fan cooled
- Extruded aluminium case
- Fitted with barn doors as standard
- Four dichroic colours
- 300W halogen lamps
- Control from any 4 channel lighting controller.
- 2 year warranty

IMPORTANT

Installer and Users please note:

These instructions should be read carefully and left with the user of the product for future reference.

The Quartet 300 must be installed by a competent electrician in accordance with the current IEE wiring regulations.

Fix the Quartet with the hanging bracket provided. If the Quartet is to be mounted with the bracket below the product, then remove the handle, and re-assemble beneath the product. The Quartet must be installed the correct way up. Installing the Quartet upside down will seriously affect lamp life.

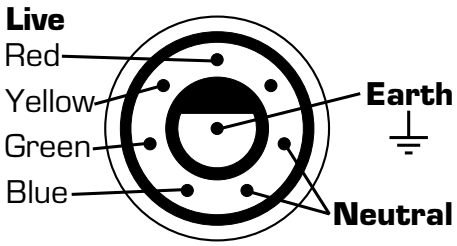
To comply with Health and Safety legislation, a safety chain must be employed. A loop is provided at the top of the rear panel for fixing the safety chain.

This symbol means that the Quartet should be mounted at least 0.8m from any object that it is illuminating.

Ensure that there are no obstructions to the ventilation, the air intakes are around the edges of the colour-filter frame, and hot air is exhausted through the fan. Also ensure that there are no readily flammable items in contact with the case.

The Quartet is only intended for use indoors.

Connect the Quartet to the output of a four-channel lighting controller, or a dimming or switching pack, using a Bulgin PX0956/S connector. Connections are as shown opposite:



Pin 1 = Earth
Pin 2 = Blue lamp live
Pin 3 = Green lamp live
Pin 4 = Yellow lamp live
Pin 5 = Red lamp live
Pin 6 = not connected
Pin 7 = Neutral (join to pin 8)
Pin 8 = Neutral (join to pin 7)

The Quartet must be earthed

The diagram shows the internal view of the plug.

The minimum cable size is 0.75mm^2 for the live and earth connections, and 1.5mm^2 for Neutral, although two 0.75mm^2 cores may be connected in parallel.

Ensure that the lighting controller has adequate switching capacity for the Quartet.

- A minimum is 300W per channel for one Quartet,
- 600W per channel for two and
- 900W per channel for three. Please note that if all four channels are switched on at the same time, on three Quartets, the current drawn from the mains will be 15.5 Amps. This would blow the fuse in a 13A mains plug.

If you wish to use more than two Quartets, where there is a possibility of all four channels being switched on at the same time, then make sure that you have a mains supply and connectors capable of handling this amount of current.

If the Quartet is connected to an NJD four-channel lighting controller with a Bulgin P552 output connector, Red will be on channel 1, Yellow on channel 2, Green on channel 3 and Blue on channel 4.

If the Quartet is to be operated from a dimmer, it is good practice to keep the cable between the dimmer and the Quartet as short as possible, and away from cables carrying low-level signals, such as microphone cables, and from the antennae of radio microphone receivers.

The Quartet needs no separate supply for the fan. The fan will operate whenever any channel is at more than 25% of full brightness.

Replacing the lamps

In order to replace a lamp, disconnect from the mains supply or controller, and unscrew the two fixing knobs at either side of the colour filter plate. Then remove the colour filter plate and reflector assembly by pulling forwards (this may be quite a tight fit). The lamps are now accessible, and the faulty lamp may be replaced by a new lamp type CP97. Do not touch the glass bulb. Hold the lamp with the paper packet in which it is supplied. If the bulb is accidentally touched, clean it before use with methylated spirit, otherwise lamp life may be reduced or the lamp could shatter due the deposits of grease from the skin reacting with the quartz at high temperature.

Replace the colour filter and reflector assembly, making sure that it goes back the same way round. (Red and blue are at the top).

Cleaning

The Quartet should be cleaned periodically as dust will tend to obstruct the fan, and impare the ventilation system. Clean the dichroic filters with a soft lint-free cloth using alcohol or hi-fi cleaning fluid

Operation

The Quartet is a floodlight, and does not produce a focused beam of light. Aim the lantern in order to get the best illumination. The barn doors may be used to control light spill at the edges of the area to be illuminated, but should be used with care, as multiple-coloured shadows will result when more than one lamp is illuminated.

The Quartet must not be operated with the barn doors completely closed, as this will result in an obstruction to the ventilation system, and will overheat the barn doors.

Do not place coloured gels in front of the Quartet. The dichroic filters must not be replaced by colour gels.

It is recommended that all four barn-doors are closed when the product is to be transported, in order to protect the dichroic filters, which are expensive to replace.

Lamp life

Lamp life can be extended by the following techniques:

1) Operate at less than full brightness. (lamp life is doubled at 85% of full power)

2) If flashing or chasing the lamps, EITHER: use a soft-fade type chase.

OR: leave the filament slightly illuminated so that it just glows red-hot similar in appearance appearance to the element of an electric fire when the Spectre is off. This can be done by setting the preheat control in the dimming pack, or by setting the slider to about 3% instead of completely off.

3) Leave the Quartet to cool for about 5 minutes before moving it. Filament lamps are most vulnerable to failure just after switching off.

The expected lamp life at various settings of the dimmer are shown below. The supply voltage is assumed to be 240V, longer lamp life will be obtained if the supply voltage is lower.

Setting	Power	Brightness	Lamp Life(hours)
0%	0W	0%	*
25%	37.5W	1.5%	*
50%	90W	12.5%	300,000*
75%	190W	42%	2250
100%	300W	100%	75

*At power settings this low, the lamp life will be determined by other factors than the power consumed by the lamp, such as switching on and off repeatedly, or mechanical damage.

Colour Mixing

An infinite variety of colours can be obtained by mixing the four colours together.

Some examples are as follows:

Magenta:	100% red, 100% blue
Cyan:	100% green, 55% blue
Lime Green:	100% green, 30% yellow
Orange:	100% red, 40% yellow
Purple:	100% blue, 45% red
Pink:	100% red, 50% green, 50% blue

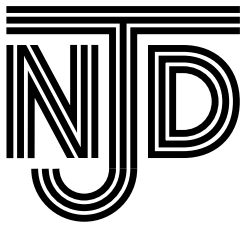
White is obtained by illuminating all colours at the same value. A "daylight" white can be obtained by including more blue and green, and slightly less red and yellow.

Technical Specification.

Dimensions:	250mm x 250mm x 245mm	
Weight:	5.2kg	
Lamps:	4 x CP97 (230V 300W)	
Lamp Life:	75 hours at 240V AC	
Colours:	Red:	(0.700,0.296)
	Yellow:	(0.590,0.410)
	Green:	(0.246,0.686)
	Blue:	(0.128,0.153)
Power Supply:	0–240V AC 4-channel (from lighting controller)	
Connector:	Bulgin PX0957/P	
Power:	1200W (all lamps illuminated)	
Current:	5.2A rms. (all lamps illuminated)	
Power factor:	cos ϕ = 1.000 (The Quartet is a resistive load)	
Switch-on Surge:	24 Amps for 60ms (all four lamps switched at the same time, 0.4Ω mains source impedance)	
Beam spread:	56° (to 50% brightness). (1m wide at 1m distance)	
Beam intensity:	2200 candela per channel.	

Standards

The Quartet complies with EN60598 Parts 1 and 2-17 (1997) (Electrical Safety Standard for Luminaires), and EN55015 (Electromagnetic Compatibility Standard for Lighting).



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