

QUARTET

Features of the Quartet

- 2000W dichroic floodlight
- Fan cooled
- Extruded aluminium case
- Fitted with barn doors as standard
- Four dichroic colours
- 500W 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.

Installation

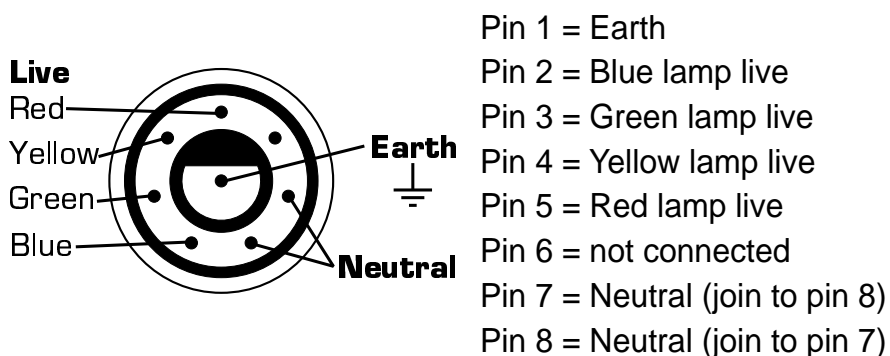
Fix the Quartet with the hanging bracket provided. If the Quartet is to be mounted with the bracket below the product, then remove the handle, and re-assemble beneath the product. The Quartet must be installed the correct way up. Installing the Quartet upside down will seriously affect lamp life.

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 below:



The Quartet must be earthed

The diagram shows the internal view of the plug.

The minimum cable size is 0.75mm² for the live and earth connections, and 1.5mm² for Neutral, although two 0.75mm² cores may be connected in parallel.

Ensure that the lighting controller has adequate switching capacity for the Quartet. A minimum is 500W per channel for one Quartet and 1000W per channel for two. Please note that if all four channels are switched on at the same time, on two Quartets, the current drawn from the mains will be 17 Amps. This would blow the fuse in a 13A mains plug.

If you wish to use more than one Quartet, 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. The Quartet contains a temperature sensor which increases air flow as temperature increases.

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 A1/244. This type of lamp has a GY9.5 base, with one large and one small pin. This is to ensure that it is inserted the correct way round. Do not touch the glass bulb. Hold the lamp by its ceramic base, or 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). Check that the fan still operates (it is possible in exceptional circumstances that the fuse in the fan circuit may fail when a lamp fails)

Replacing the Fuse

The Quartet is fitted with a fuse to protect the fan circuit. To replace the fuse, proceed as follows:

Disconnect from the mains or lighting controller, and remove the eight screws that secure the back panel. The fuse is located on the printed circuit board. Replace with a new fuse type T630mA 5x20mm. (630mA anti-surge).

Replace the rear panel and the fixing screws.

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
0%	0W	0%	*
25%	62.5W	1.5%	*
50%	150W	12.5%	204000
75%	320W	42%	1500
100%	500W	100%	50

*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

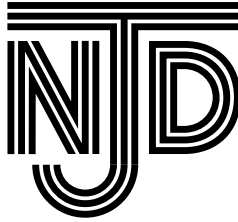
White is obtained by illuminating all colours at the same value. A "daylight" white can be obtained by including more blue and green, and slightly less red and yellow.

Technical Specification.

Dimensions:	250mm x 250mm x 245mm
Weight:	5.2kg
Lamps:	4 x A1/244 (230V 500W)
Lamp Life:	50 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)
Fuse (fan supply)	T630mA HBC 5x20mm
Power Supply:	0–240V AC 4-channel (from lighting controller)
Connector:	Bulgin PX0957/P
Power:	2000W (all lamps illuminated)
Current:	8.7A rms. (all lamps illuminated)
Power factor:	$\cos \phi = 1.000$ (The Quartet is a resistive load)
Switch-on Surge:	40 Amps for 60ms (all four lamps switched at the same time, 0.4 Ω 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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All correspondence should be addressed to:

Customer Support,
N.J.D. Electronics,
10-11. Ascot Industrial Estate,
Sandiacre,
Nottingham,
England.
NG10 5DJ

Telephone: +44 115 939 4122
Facsimile: +44 115 949 0453
Technical help line: +44 115 949 0038
e-mail: technical@njd-electronics.demon.co.uk