

Datamoon

Kit

Features of the Datamoon

- 20 beams
- Position Control of reflector dish
- 8 gobos (squares, tunnel, dots, star, triangle, segments, spiral, circle)
 - 7 dichroic colours (magenta, yellow, cyan, pink, red, green and blue) and white
- Blackout/strobe shutter.
- 250W halogen lamp with dichroic reflector
- Lamp life economy switch
- Adjustable Focus
- DMX control
- 0-10V Analogue control
- Analogue control of operating modes
- Stand-alone operation using internal microphone

Features of the DataCon1

- Full control over colour and beam movement
- Controls up to 32 Datamoons
- Animated sequences for two Datamoons
- Strobe and flash-to-sound effect
- Slow movement effects
- Needs no separate power supply
- Built in microphone for sound activation

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 Datamoon with the hanging bracket provided. To conform to Health & Safety Regulations, a safety chain must also be employed.

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

Connect the Datamoon to the mains supply with the lead provided. The wires are colour-coded as follows:

- Brown = Live (phase)
- Blue = Neutral
- Green/Yellow = Earth
- The Datamoon must be earthed for safe and reliable operation.

The supply must be fitted with an isolating switch, or plug and socket, and protected by fuse or circuit breaker rated at between 6A and 16A. If the Datamoon circuit is connected via an MCB then it is recommended that a time-delay MCB is used (Type 3 or Type C to BS3871). This will reduce the possibility of "nuisance tripping" due to the large inrush current of the halogen lamp.

In order to reduce the risk of fire, the Datamoon should be installed more than 0.8 metres from any object that it is illuminating.

It is also possible to connect the Datamoon to a switching pack such as the NJD SP10000 but this is not recommended. If connecting via a power pack, the outputs of the power pack should be de-rated by 50% from its "resistive load" capacity to allow for the large inrush current of the halogen lamp. The Datamoon should not be connected to a dimming pack or light dimmer. The Datamoon is an inductive load.

Adjust the hanging bracket until the light beams are in the best position. The Datamoon may be moved whilst it is operating provided that it is done carefully, the lamp is most vulnerable mechanical damage immediately after it has been switched off, before it has fully cooled. It is recommended that the Datamoon is allowed to cool for 5 minutes after switching off before moving.

Lamp Brightness/Extended Life Switch

The high brightness/extended life switch is provided to select high brightness or extended lamp life, or to allow for lower or higher mains voltages (A higher mains voltage substantially reduces lamp life). The switch is positioned next to the incoming mains cable. If operating on a 220V supply, select high brightness, otherwise, select whichever mode is appropriate. In the centres of towns the mains voltage can be appreciably higher than 240V during the evenings, so the extended life setting may be advisable.

Changing the lamp.

Disconnect from the mains supply. Remove the lamp cover on top of the unit and remove the lamp from the lampholder. Disconnect the lamp connector. Replace with a new lamp, type A1/259, being careful not to touch the glass envelope of the lamp. Hold the lamp only by the edge of the reflector. Replace the cover and tighten the fixing knob.

Changing the fuse.

Occasionally, when the lamp fails the fuse may also blow. If this occurs, replace with a new fuse type 20mm x 5mm 3.15 Amp antisurge, high breaking capacity. This type of fuse has a ceramic case. Do not replace with any other type or value of fuse. If the new fuse blows consult a dealer. The fuse is located next to the incoming mains cable.

Focusing.

To focus slacken the two focusing controls on the top of the unit, move forwards or backwards as required, and re-tighten the screw when the best image is obtained.

Cleaning.

The Datamoon should be cleaned periodically as the light output will become less intense as smoke fluid residues build up

on the mirror assembly and the lens. Also, remove any dust build up in the fan using a brush - a blocked fan can lead to overheating and reduced lamp life.

Disconnect from the mains supply and remove the cover. Clean the lens and the mirror using a soft lint-free cloth and methylated spirit, isopropyl alcohol or hi-fi cleaning fluid. Also, make sure that the fan is not becoming obstructed

Connection.

Connect the Datacon1 to the Datamoon using the RJ11 to 5-pin XLR lead provided. Connect the two Datamoons together using the 5-pin XLR male to female lead provided.

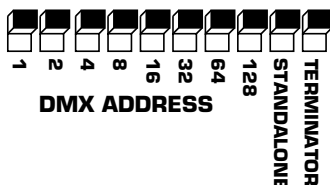
Setting up

1. To make both Datamoons operate identically.

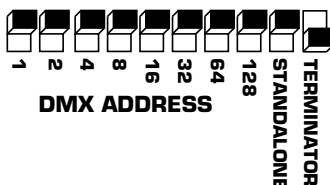
Set all address switches OFF.

Set the "Standalone" switch OFF.

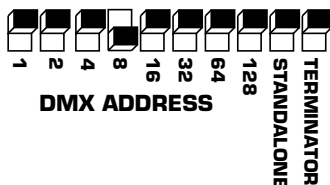
Set the "Terminator" switch OFF on all Datamoons except the last on in the chain.



On the last Datamoon in the chain, set the "Terminator" switch ON. This correctly terminates the DMX line, preventing interference and data errors.



If the Datamoons are facing each other, then it is possible to reverse the direction of beam movement of one unit, so that the movement of beams in the air is the same. To do this, set the switch labelled "8" ON.

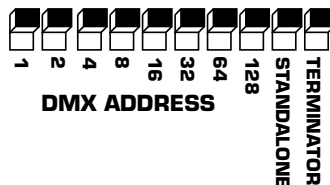


If all the Datamoons are operating identically then the full range of functions of the Datacon1 will not be available.

2. Patterns and colour sequences.

Alternatively, the Datamoons can be configured to operate together producing movement and colour patterns between the two units. The patterns are described in the next section "Operation"

To make the Datamoons operate in pairs, synchronized together, then set all the address switches OFF on the first of the pair,



and set the switch labelled "4" ON in the second of the pair.



Set the "Standalone" switch OFF on all units.

Set the "Terminator" switch OFF on all Datamoons except the last one in the chain. On the last Datamoons in the chain, set the "Terminator" switch ON. This correctly terminates the DMX line, preventing interference and data errors.



If the Datamoons are facing each other, then it is possible to reverse the direction of beam movement of one unit, so that the movement of beams in the air is the same. To do this, set the switch labelled "8" ON as well.

Sound activation.

The Datacon1 has a built-in microphone and needs no connection to the sound source.

Operation from other types of controller.

To run the Datamoons from a different type of controller then download the full datamoons user guide from the NJD website:

<http://www.njd.co.uk/njd>

Operation

Program control:

Off. The lamps are switched off, but motors are kept in position, to avoid the need for the startup procedure next time the Datamoon is required.

Manual. Control of the Datamoon is entirely manual: the colour is set on the colour control, and the dish rotates at a fixed speed set on the Rotation control.

Sync. The light beams of both Datamoons in the pair move together. The time interval between beam movements is set on the SPEED control.

The colour is set on the COLOUR control.

Random. The light beams of both Datamoons in the pair move at the same time but random distances and directions. The time interval between beam movements is set on the SPEED control.

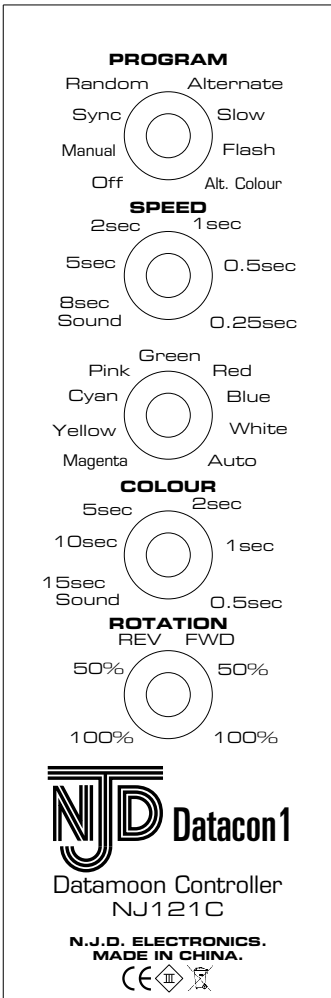
The colour is set on the COLOUR control.

Alternate: The beams from the two Datamoons move alternately. The time interval between beam movements is set on the SPEED control.

The colour is set on the COLOUR control.

Slow. The light beams make slow sweeping movements, speeding up and slowing down, ideal for slower music.

The colour is set on the COLOUR control. The SPEED control is ignored.



Flash. The Datamoon strobos or flashes to sound in white, the dish rotates at a fixed speed set on the ROTATION control. The COLOUR control is ignored

Alternate Colour. The Datamoon moves and change colour alternately. The time interval between beam movements is set on the SPEED control. The Colour control is ignored.

Speed control.

This sets the the time interval between movements of the light beams in *sync*, *random* and *alternate* modes.

In *flash* modes, set the strobe speed.

Colour control.

This sets the colour in *manual*, *sync*, *random*, *alternate* and *slow* mode. When set to *auto*, the colour is changed at random at time intervals set on the control below. In *manual* and *sync* modes, the colour of the beams from the two Datamoons is identical, in *random* and *alternate* modes, the colours sequence between the two units. "Change colour to sound" can be selected by setting the COLOUR control to *auto* and the COLOUR SPEED control (below it) to *sound*.

Rotation control

This sets the rotation speed in *manual* and *flash* modes.

Fault Finding

Datamoon

Does not start and go through set-up procedure.

- No mains supply - check mains lead
- Fuse Blown - check fuse.

Lamp not lit

- Lamp failed - replace lamp.

Datacon1

No operation:

- Plugs not fully pushed into sockets
- DIL switches set to wrong address, must be 1, 5, 9 or 13.
- Program control set to OFF.

Colour control does not operate:

- Program control in *flash* or *alternate colour*

Speed control does not operate:

- Program control in *manual* or *slow*.

Repairs and spare parts.

If you require spare parts or to return the unit for repair, please contact. **technical@njd.co.uk**

Part numbers for replacement leads or leads of different lengths are as follows:

RJ11 to XLR:	NJ310
3m XLR to XLR:	G038VH
6m XLR to XLR:	G038VJ
10m XLR to XLR:	G038VK

Technical Specification.

Datamoon

Power supply:	230V AC 50Hz 1.3A 300VA
Fuse:	T3.15A (3.15 Amp anti-surge)
5x20mm	
	HBC to IEC127
	A HBC fuse has a ceramic case.
Switch-on Inrush:	4.2A (1000VA)
Inrush Duration:	100ms (5 mains cycles)
Lamp:	A1/259 (ELC) 24V 250W halogen with dichroic reflector
Colours:	7 (dichroic) + white
Gobos:	7
Beam intensity:	20,000 candela (high brightness) 15,500 candela (extended life)
Lamp life:	100 hours nominal @ 230V AC (high brightness) 300 hours nominal @ 230V AC (extended life)
<i>Note: Although Britain has had a 230V supply since January 1995, the voltage is usually nearer 240V</i>	
Lamp Life:	60 hours nominal @ 240V AC (high brightness) 180 hours nominal @ 240V AC (extended life)
Beam diameter:	63mm @ 1m
Beam angle: 3.6°	
This is the diameter of each individual beam (circular gobo selected)	
Pattern diameter:	660mm @ 1m
Pattern Angle:	37°
This is the overall diameter of all 20 beams	
Motors:	Unipolar Hybrid stepper:
microstepping	
Microstep size:	6'45"
DMX input/output:	complies with DMX512 (1990) 4µsec

Connectors: 5-pin XLR

Data+: pin 3

Data-: pin 2

Earth: pin 1

+12V supply output: pin 5 (on DMXin only)

Analogue input voltage: 0-10V

Analogue input impedance: 44k Ω

Analogue connector: 5-pin DIN Type A (180°)

Channel 1: pin 3

Channel 2: pin 5

Channel 3: pin 4

Channel 4: pin 1

OV (ground): pin 2

Datacon1

Dimensions: 182mm x 65mm x 37mm

Weight: 0.3kg

Power Supply: 12V DC @ 15mA

Output: DMX512 (conforms to electrical and data specifications)

Connections: RJ11

Standards

The Datamoon complies with the following British and European Standards:

BS EN55015 - Electromagnetic Compatibility.

BS EN60598-1 - Electrical Safety Standard for Luminaires

BS EN60598-2-17 - Safety of Luminaires for Stage and Television.

The Datacon1 is a CLASS III product (Protection by Safety Extra Low Voltage) and is exempt from electrical safety standards, and complies with Electromagnetic Compatibility Standard EN55103.

Guarantee

This product is guaranteed for a period of 12 months against faulty components or manufacture from the date of purchase. Upon proof of purchase, NJD shall, at its own option, repair or replace the defective item at no cost to the purchaser.

This guarantee is contingent upon the proper use of the product in the application for which it is intended and does not cover products that have been modified, subjected to unusual physical conditions, or electrical conditions outside its specification, or damaged in any way.

This guarantee is limited to the product only and does not cover carriage costs, installation costs or travel expenses. Your statutory rights are not affected.

In the event of any problems with this product contact the retailer from which it was purchased for technical assistance, or e-mail technical@njd.co.uk

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