Kam

INSTRUCTION MANUAL

LED Quadflower 1 DMX
Wide angle DMX lighting effect

MANUAL VERSION 2.0
07-07-10

4 large glass lenses for multi dispersion
Ultra bright red, green, blue and white LEDs
512 DMX compatible
10 point dipswitch selector
Built-in programs and Sound-to-Light operation
Microphone with adjustable sound sensitivity
No fan due to cool LED operating temperature
Metal chassis and adjustable hanging bracket
Mains fused IEC

For the latest product updates and information on the entire Kam range visit:

www.kam.co.uk

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INTRODUCTION

Thank you for purchasing the Kam LED Quadflower 1 DMX. To optimise the performance of this product, prior to use, please read these operating instructions carefully to familiarise yourself with the basic operations of this unit.

The Kam LED Quadflower 1 DMX is a superb lighting effect that will excite both you and your audiences alike. Please keep these instructions in a safe place for future reference. This unit has been tested in the factory before being shipped to you. There is no assembly required.

WARNINGS

To prevent or reduce the risk of electrical shock or fire, do not expose this unit to high temperature, rain or moisture. There are no serviceable parts in the unit, please have all servicing and adjustments made by a qualified service engineer. This appliance is to used by qualified personnel only.
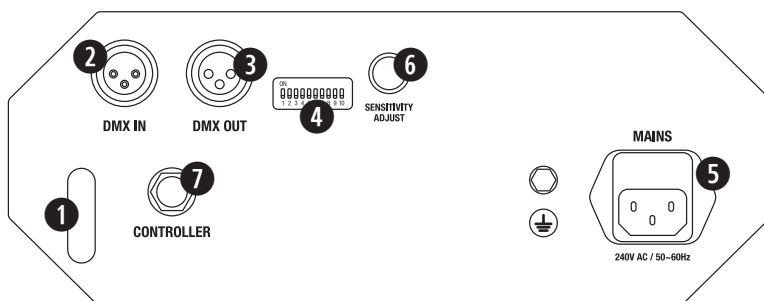
REAR PANEL FUNCTIONS
1. Safety chain loop
2. DMX input
3. DMX output
4. 10 point dip switches
5. Mains fused IEC input (240V)
6. Sensitivity adjustment
7. Kam EZ1 controller input
8. Internal microphone (not shown)

OPERATION

Connect your Kam LED Quadflower 1 DMX to the mains supply 240V AC, the unit is now ready to go.

STAND ALONE OPERATION

In stand alone mode you can use the Kam LED Quadflower 1 DMX without a controller. To use the unit in sound to light mode (without a controller) set all DIP switches to OFF. The unit features a built-in internal microphone which provides the sound to light function. You can adjust the sensitivity of the mic with the rotary control on the rear panel.

MASTER / SLAVE OPERATION

The master/slave function enables several units to be synchronized and controlled by one Master unit. On the rear panel you can find XLR male and XLR female sockets, these can be used for connecting several devices. Choose the unit which is to control the effects, this unit then works as the Master and controls all other Slave units which are connected to it via DMX cables. Connect an XLR cable to the DMX out of the Master unit to the DMX IN socket of the slave unit. Continue linking other units in the same way, linking the DMX OUT of the last connected unit to the DMX IN of the next unit. Set all DIP switches to OFF in order to determine the Master unit. Set DIP switches 1 and 10 to ON in order to determine the slave devices.

DMX CONTROL OPERATION

You can control the four spots individually via a DMX controller. Every DMX channel has a different occupation with different features. For DMX controlled operation set DIP switch 10 to ON.

Building a serial DMX chain

Connect the DMX output of the first unit in the chain to the DMX input of the next unit using an XLR cable. Always connect one output with the input of the next unit until all units are connected.

DMX addressing

Each device occupies 6 channels. To ensure that the control signals are properly directed to each device, the unit requires addressing. This has to be adjusted for every unit by changing the DIP switches as set out in the table below. The starting address is defined as the first channel from which the device will respond to the controller. Please make sure that you do not have any overlapping channels in order to control each unit correctly and independently from the other units in the DMX data link.

DMX control

After having addressed all the units, you may now start operating them via your DMX controller.

DIP switch number		1	2	3	4	5	6	7	8	9	10
DMX starting address		1	2	4	8	16	32	64	128	256	512
Unit 1 - channels 1-6	ON	▲									▲
	OFF		▽	▽	▽	▽	▽	▽	▽	▽	
Unit 2 - channels 7-12	ON	▲	▲	▲							▲
	OFF				▽	▽	▽	▽	▽	▽	
Unit 3 - channels 13-18	ON	▲		▲	▲						▲
	OFF		▽			▽	▽	▽	▽	▽	
Unit 4 - channels 19-24	ON	▲	▲			▲					▲
	OFF			▽	▽		▽	▽	▽	▽	
Unit 5 - channels 25-30	ON	▲			▲	▲					▲
	OFF		▽	▽			▽	▽	▽	▽	

Channel 1   **Lens 1 - LED groups/colours selection**

000 – 010	Off
011 – 016	Group 1 of White on
017 – 022	Group 2 of White on
023 – 028	Group 3 of White on
029 – 034	Group 1 of Red on
035 – 040	Group 2 of Red on
041 – 046	Group 3 of Red on
047 – 052	Group 1 of Green on
053 – 058	Group 2 of Green on
059 – 064	Group 3 of Green on
065 – 070	Group 1 of Blue on
071 – 076	Group 2 of Blue on
077 – 082	Group 3 of Blue on
083 – 088	All White on
089 – 094	All Red on
095 – 100	All Green on
101 – 106	All Blue on
107 – 112	All Red and all Green on
113 – 118	All Red and Blue on
119 – 124	All Green and all Blue on
125 – 130	All Red, all Green and all Blue on
131 – 136	All Red and all White on
137 – 142	All Green and all White on
143 – 148	All Blue and all White on
149 – 154	Group 1 of Blue and all White on
155 – 160	Group 2 of Blue and all Red on
161 – 166	Group 3 of Blue and all Green on
167 – 172	Group 1 of Blue and Group 3 of Red on
173 – 178	Group 2 of Blue and Group 2 of Red on
179 – 184	Group 3 of Blue and Group 1 of Red on
185 – 190	Group 1 of Green and Group 3 of White on
191 – 196	Group 2 of Green and Group 2 of White on
197 – 202	Group 3 of Green and Group 1 of White on
203 – 208	Group 1 of Blue, Group 3 of Green, Group 1 of Red, and Group 3 of White on
209 – 214	Group 2 of Blue, Group 2 of Green, Group 2 of Red, and Group 2 of White on
215 – 220	Group 3 of Blue, Group 1 of Green, Group 3 of Red, and Group 1 of White on
221 – 255	All White, all Red, all Green and all Blue on

Channel 2   Lens 2 - LED groups/colours selection

As per channel 1	

Channel 3   Lens 3 - LED groups/colours selection

As per channel 1	

Channel 4   Lens 4 - LED groups/colours selection

As per channel 1	

Channel 5   Strobe

000 – 010	Off
011 - 255	Flash with increasing speed

Channel 6   Built-in programs, auto mode, sound to light mode

000 – 010	No function
011 – 036	Program 1
037 – 062	Program 2
063 – 088	Program 3
089 – 114	Program 4
115 – 130	Program 5
131 – 156	Program 6
157 – 182	Program 7
183 – 208	Program 8
209 – 250	Auto Mode: built-in programs
251 – 255	Sound to light Mode

OPTIONAL KAM EZ1 MINI CONTROLLER

A three button mini controller is available to simply control your lighting effects. Visit www.kam.co.uk to find out which Kam lighting product are compatible. The Kam EZ1 mini controller has three functions: Button 1 selects the blackout function. Button 2 selects the built-in programs / hold to strobe. Button 3 selects the speed mode (fast, mid and slow). When the LED indicator flashes, it is in Fast mode, when the LED indicator is permanetly on, it is in Mid mode and the when LED indicator stays off, it is in Slow mode.

CLEANING AND MAINTENANCE

We recommend frequent cleaning of the unit. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents! There are no serviceable parts inside the device except for the fuse. Maintenance and service operations are only to be carried out by authorized dealers.

REPLACING THE FUSE

Only replace the fuse by a fuse of same type and rating. Before replacing the fuse, unplug mains lead. Procedure: Step 1: take out the fuse holder under the power supply / Step 2: remove the old fuse from the fuse holder. Step 3: install the new fuse in the fuse holder. Step 4: replace the fuse holder in the housing. If the power supply cable of this device becomes damaged, it has to be replaced by authorized dealers only.

TECHNICAL SPECIFICATIONS

5mm LEDs:	**Each lens has: 18 x green / 18 x blue / 12 x red / 9 x white (total 228)**
Power supply:	**220-250V AC, 50-60Hz**
Power consumption:	**30W**
DMX channels:	**6**
DMX-512 connection:	**3 pin XLR**
Sound to light:	**Via built-in microphone**
Max ambient temperature:	**Ta 45°C**
Max housing temperature:	**TB (steady state) 60°C**
Min distance from flammable surfaces:	**0.50m**
Min distance to lighted object:	**0.10m**
Fuse:	**F 1A / 250V**
Weight:	**5.5Kg**

Due to continuous product development, specifications and appearance are subject to change.
If this product is ever no longer functional please it take to a recycling plant for environmentally friendly disposal.