## karm <br> I N S TRUCTION MANUAL

## LED CONCEPT RGBW flower lighting effect with DMX

M A N U A L V E R S I O N 1 . 0

Date 20-01-2011

Powerful multi-beam spinning and rotating lighting effect Matrix pattern effect utilising LED technology

Wide angle Fresnel lens
256 bright RGBW 5mm LEDs
Sound-to-Light stand alone \& DMX modes
Master/Slave function
Individual control for each LED
4 or 256 DMX channels Plug \& Play operation Safety mounting loop Tough metal chassis

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

## www.kam.co.uk

Kam products are manufactured by: Lamba plc, Unit 1, Southfields Road, Dunstable, Bedfordshire, United Kingdom LU6 3EJ
Telephone: (+44)(0)1582690600 • Fax: (+44)(0)1582690400 • Email: mail@lambaplc.com • Web: www.lambaplc.com If this product is ever no longer functional please take it to a recycling plant for environmentally friendly disposal.

Due to continuous product development, specifications and appearance are subject to change.
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Thank you for purchasing this KAM product, we are sure that it will serve you for many years to come.
To optimise the performance of this product, please read these operating instructions carefully to familiarise yourself with the basic operations of this unit. After you have read the instructions, please retain them for future reference.

This unit has been tested at the factory before being shipped to you.
To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture. To prevent a fire hazard, do not expose the unit to any naked flame sources. Unplug this apparatus during lightning storms or if it is unlikely to be used for long periods of time.

When installing the unit, please ensure you leave enough space around the unit for ventilation. Slots and openings in the unit are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered.

Always handle the power cable by the plug. Never pull out the plug by pulling on the cable. Never touch the power cable when your hands are wet as this could cause an electric shock. Do not tie a knot in the cable. The power cable should be placed such that it is not likely to be stepped on. A damaged power cable can cause a fire or give you an electrical shock. Check
the power cord periodicaly, if you ever find that it is damaged, replace it before using the unit again. Contact your retailer for a replacement.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit is to be used meets the required written on the unit.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
DOLETMC
The lightning flash symbol inside a triangle is intended to alert the user to the presence high voltage within the unit's enclosure that may be of sufficient power to constitute a risk of electrical shock to persons.

Caution: to prevent the risk of electric shock, do not attempt to open the unit. No user-serviceable parts inside. Refer all servicing to qualified service personnel.

The exclamation mark inside a triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

Any modification carried out on the unit may invalidate the unit's warranty.
If applicable, only use the stand, tripod or bracket specified or sold with the apparatus.
Select the installation location of your unit carefully. Avoid placing it in direct sunlight or locations subject to vibration and excessive dust. Do not use the unit where there are extremes in temperature (below $41^{\circ} \mathrm{F} / 5^{\circ} \mathrm{C}$ or exceeding $95^{\circ} \mathrm{F} / 35^{\circ} \mathrm{C}$ ).

Unpacking and safety: Please unpack your new product carefully, your new product should reach you in perfect condition. Please check that no damage has occurred during transit. If any damage is found, do not operate your unit. Please contact the retailer you purchased it from immediately. If there is any damage to the mains cable do not use the device. Always disconnect the unit from the mains supply when carrying out any servicing or cleaning of the unit.

The serial number for this equipment should be located on the rear or underside of the unit. Please make a note of this number as you will need it for your warranty, it is a good idea to keep a copy of the serial number for your own records.


1. Mains input
2. Internal fuse
3. Variable sound sensitivity adjustment
4. Microphone pick up
5. Mode button
6. Up button
7. Down button
8. Enter button
9. Dmx input
10. Dmx output
11. Safety chain anchor

## OPERATION

Using the unit in stand alone mode with no controller

## Automatic Mode

This fixture has a built-in automatic program. Mode To access this,

1) Press <MODE> until "p--" is displayed, use the up down buttons until p*1is displayed then Press Enter to confirm.
2) To adjust the speed of the automatic program. Press <MODE> until the display reads "S--". , then press Enter.
3) Use <UP> and <DOWN> to select the operating speed of the program (Value:1-100, Slow ~ Fast), then press

Enter to confirm.

## Sound Mode

This fixture has a built-in sound activated program mode

1) Press <MODE> until "p--" is displayed. use the up down buttons until p*2is displayed Then press Enter to confirm.
2) Use the sensitivity control dial to adjust the sound sensitivity. anti clockwise zero clock wise 0-100\%

Value:1-100, Slow ~ Fast), then press Enter to confirm.

## Master/Slave Operation without DMX controller

This mode allows for multiple units slave fixtures to follow a single master fixture.

1) Set the master fixture to one of the 2 standalone operating modes: automatic or sound mode.
2) To Set the slave units press the <MODE> button until 4ch is displayed
3) Press enter to confirm
4) The display will change to 512 use the up / down buttons to select 001, this will set the DMX starting address to "001". Press enter to confirm display will show d--1
PLEASE NOTE ONLY ONE MASTER UNIT MUST BE USED. ALL OTHERS MUST BE SET TO SLAVE

## Master/Slave Operation with DMX controller

Each unit uses 4 DMX channels
To set the DMX address of the unit press the <MODE> button until 4ch is displayed, press the enter button to confirm The display will change to $\mathrm{d}^{* * *} 001-512$ press the up/down buttons to select the desired DMX starting address i.e. 001 press enter to confirm.

If several units are to be controlled exactly the same. Set the DMX address on all units to the same value
If individual control of each unit is required
Each unit must have its own DMX address, this must be at least 4 channels apart and no address must cross over e.g. set unit 1 to 001 unit 2 to 005 units 3 to 009 and so on.

## There is also a $\mathbf{2 5 6}$ channel DMX option

This will enable control of each of the individual 256 LEDs
As the LEDs are mounted as a $16 \times 16$ matrix board stunning effects are programmable with DMX controllers and DMX software (not included) plotting of individual LEDs is possible giving many programming options. This is ideal for the install application or pro DMX user.

DMX value chart for 4 channel DMX operation

| CHANNEL | VALUE | FUNCTION |  |
| :---: | :---: | :---: | :---: |
| 1 | 000 | Black out | When CH 2 <br> @ 000-010 |
|  | 001-216 | Select the Scenes (Total 204) |  |
|  | 217-255 | All the LEDs on |  |
| 2 | 000-010 | No Function |  |
|  | 011-020 | Program 1 |  |
|  | 021-030 | Program 2 |  |
|  | 031-040 | Program 3 |  |
|  | 041-050 | Program 4 |  |
|  | 051-060 | Program 5 |  |
|  | 061-070 | Program 6 |  |
|  | 071-080 | Program 7 |  |
|  | 081-090 | Program 8 |  |
|  | 091-100 | Program 9 |  |
|  | 101-110 | Program 10 |  |
|  | 111-120 | Program 11 |  |
|  | 121-130 | Program 12 |  |
|  | 131-140 | Program 13 |  |
|  | 141-150 | Program 14 |  |
|  | 151-160 | Program 15 |  |
|  | 161-170 | Program 16 |  |
|  | 171-180 | Program 17 |  |
|  | 181-190 | Program 18 |  |
|  | 191-200 | Program 19 |  |
|  | 201-210 | Program 20 |  |
|  | 211-220 | Program 21 |  |
|  | 221-230 | Program 22 |  |
|  | 231-240 | Program 23 |  |


|  | $241-250$ | Program 24 |  |
| :---: | :--- | :--- | :--- |
|  | $251-255$ | Sound Active |  |
| 3 | $000-255$ | Programs Speed: Slow $\sim$ Fast |  |
| 4 | $000-010$ | No Function |  |
|  | $011-255$ | Flash speed: Slow $\sim$ Fast |  |

## 256 channel mode:

Under this mode, each channel controls each LED off/on.
Each channel value 000-127 for each LED off, 128-255 for each LED on. Total 256 channels for 256 pcs LEDs.

| CHANNEL | VALUE | FUNCTION | LED COLOUR |
| :---: | :---: | :---: | :---: |
| 1 | 000-127 | No. 1 LED Off | Blue |
|  | 128-255 | No. 1 LED On |  |
| 2 | 000-127 | No. 2 LED Off | White |
|  | 128-255 | No. 2 LED On |  |
| 3 | 000-127 | No. 3 LED Off | Blue |
|  | 128-255 | No. 3 LED On |  |
| 4 | 000-127 | No. 4 LED Off | White |
|  | 128-255 | No. 4 LED On |  |
| 5 | 000-127 | No. 5 LED Off | Blue |
|  | 128-255 | No. 5 LED On |  |
| 6 | 000-127 | No. 6 LED Off | White |
|  | 128-255 | No. 6 LED On |  |
| 7 | 000-127 | No. 7 LED Off | Blue |
|  | 128-255 | No. 7 LED On |  |
| 8 | 000-127 | No. 8 LED Off | White |
|  | 128-255 | No. 8 LED On |  |
| 9 | 000-127 | No. 9 LED Off | Blue |
|  | 128-255 | No. 9 LED On |  |
| 10 | 000-127 | No. 10 LED Off | White |
|  | 128-255 | No. 10 LED On |  |
| 11 | 000-127 | No. 11 LED Off | Blue |
|  | 128-255 | No. 11 LED On |  |
| 12 | 000-127 | No. 12 LED Off | White |
|  | 128-255 | No. 12 LED On |  |
| 13 | 000-127 | No. 13 LED Off | Blue |
|  | 128-255 | No. 13LED On |  |
| 14 | 000-127 | No. 14 LED Off | White |
|  | 128-255 | No. 14 LED On |  |
| 15 | 000-127 | No. 15 LED Off | Blue |
|  | 128-255 | No. 15 LED On |  |
| 16 | 000-127 | No. 16 LED Off | White |
|  | 128-255 | No. 16 LED On |  |
| 17 | 000-127 | No. 17 LED Off | Red |
|  | 128-255 | No. 17 LED On |  |
| 18 | 000-127 | No. 18 LED Off | Green |
|  | 128-255 | No. 18 LED On |  |
| 19 | 000-127 | No. 19 LED Off | Red |
|  | 128-255 | No. 19 LED On |  |
| 20 | 000-127 | No. 20 LED Off | Green |
|  | 128-255 | No. 20 LED On |  |
| 21 | 000-127 | No. 21 LED Off | Red |
|  | 128-255 | No. 21 LED On |  |
| 22 | 000-127 | No. 22 LED Off | Green |
|  | 128-255 | No. 22 LED On |  |
| 23 | 000-127 | No. 23 LED Off | Red |
|  | 128-255 | No. 23 LED On |  |
| 24 | 000-127 | No. 24 LED Off | Green |
|  | 128-255 | No. 24 LED On |  |
| . |  | . |  |
| . |  | . |  |
| . |  | . |  |
| . |  | . |  |


| 251 | $000-127$ | No. 251 LED Off | Red |
| :---: | :---: | :--- | :---: |
|  | $128-255$ | No. 251 LED On |  |
| 252 | $000-127$ | No. 252 LED Off | Green |
|  | $128-255$ | No. 252 LED On |  |
| 253 | $000-127$ | No. 253 LED Off | Red |
|  | $128-255$ | No. 253 LED On |  |
| 254 | $000-127$ | No. 254 LED Off | Green |
|  | $128-255$ | No. 254 LED On |  |
| 255 | $000-127$ | No. 255 LED Off | Red |
|  | $128-255$ | No. 255 LED On |  |
| 256 | $000-127$ | No. 256 LED Off | Green |
|  | $128-255$ | No. 256 LED On |  |

## Technical specification

Power supply: 100 -240 V AC, $50 / 60 \mathrm{~Hz}$ ~
Power consumption: 95 W
DMX control channels: 4/256
DMX512 connection: 3-pin XLR
Number of LEDs: 256
Type of LEDs: 5 mm
Beam angle: approx. $36^{\circ}$
Dimensions (LxWxH): $305 \times 275 \times 280 \mathrm{~mm}$
Weight: 3.5 kg
Maximum ambient temperature $\mathrm{Ta}: 45^{\circ} \mathrm{C}$
Maximum housing temperature TC (steady state): $50^{\circ} \mathrm{C}$
Min. distance from flammable surfaces: 0.5 m
Min. distance to lighted object: 0.1 m
Fuse: F 2 A, 250 V
Please note: Every information is subject to change without prior notice ©

