



I N S T R U C T I O N M A N U A L

DMX Star Cluster Ultimate V2

Red and green star cluster effect

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

Date 18/11/2010

Multiple laser effects including
Star cluster, firework, 3D, kaleido
100mW red / 40mW green diodes
Built-in programs
Sound activation
Full 512 DMX compatible
8 DMX channels
Fan cooled cool running
Safety key lock
Solid metal chassis
Adjustable hanging bracket

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)1582 690600 • Fax: (+44) (0)1582 690400 • 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.

© Copyright Lamba plc 2010. E&OE.

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 periodically, 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.



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.

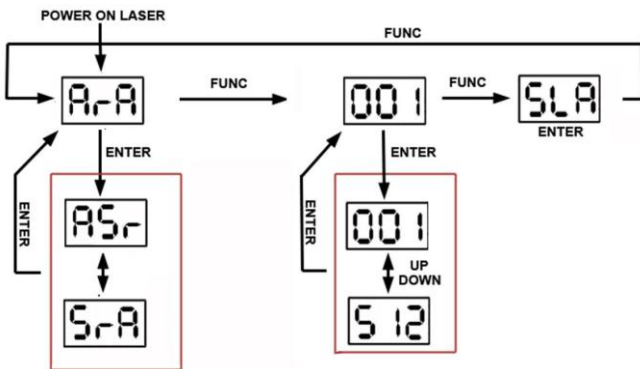
Select the installation location of your unit carefully. Avoid placing it in direct sunlight or locations subject to vibration and excessive dust. Do not use the unit where there are extremes in temperature (below 41°F / 5°C or exceeding 95°F / 35°C).

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.

Operation

When laser is powered on, LED display on the rear panel shows the current operating status. With help of LED display panel, it is very easy to set and change the operating mode of laser.



Key lock

Located on the rear panel is the safety key lock, when in the on position the laser will function correctly. When in the off position the laser diodes will not function but the unit will still power up.

Remote socket

This can be connected to a remote safety lock off switch if required (not supplied).

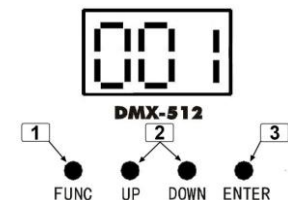
Mode

Mode/Function Option, to choose the operating mode of laser.

Enter

Confirmation, to confirm all settings or change of LED control panel.

UP/DOWN to change operating mode, parameter or DMX address.



Stand alone mode

Using the function button press until one of the following is displayed Sra,Ara,Asr, and is flashing

Use the up / down buttons to select desired program

Press enter to confirm

DISPLAY	STAND ALONE MODE PRE PROGRAM EFFECT
A_rA	ARA Auto Running rAndom Effect
AS_r	ASR Auto Slow running Effect
S_rA	SRA Sound Activated rAndom Effect

MASTER/SLAVE MODE

Several units can be linked together using a DMX cable (not supplied). This can be done with or without a DMX controller.

Stand alone (no controller)

One unit must be set as the master unit, using the function button select the desired program. All other units must be set to slave mode, using the function button until **SLA** is displayed, then press enter to confirm. This must be done on all slave units.

And they must be linked together using a 3pin XLR to XLR DMX cable.






Connect from the DMX output of the master into the DMX output of the first slave device and continue linking in this way to all other slave units.

In sound mode use the rotary dial on the rear panel to adjust the sound sensitivity.

Linking with DMX controller

Each unit uses 8 DMX channels. Using the function button press until 001-512 is displayed. Using the up/down button select the required DMX starting address and press enter to confirm. This will start the DMX address at 001. If wanting to control several units exactly the same, all units must be set to this start address. If wanting individual control of all units, each unit must have its own starting address. E.g. unit 1 set to 001 unit 2 set to 009 and so on. Each unit must be set at least 8 channels apart and no channel address must cross over with another unit.

DMX Protocol

Channel	DMX value	Description
1 Mode	000-009	Black out
	010-060	ARA, Auto Running Random Effect
	061-110	ASR, Auto Slow Running Effect
	111-160	SRA, Sound Activated Random Effect
	161-255	DMX MODE (Other channels activated)
2 Grating	000-025	Grating Effect 1
	026-050	Grating Effect 2
	051-074	Grating Effect 3
	075-100	Grating Effect 4
	101-125	Grating Effect 5
	126-150	Grating Effect 6
	151-175	Grating Effect 7
	176-200	Grating Effect 8
	201-225	Grating Effect 9
226-255	Grating Effect 10	
3 Movement 1	000-255	Slow to Fast 
4 Movement 2	000-127	The Second Grating --- OFF
	128-255	The Second Grating --- ON
5 Movement 3 Channel 6 must have value above 25	000-255	Slow to Fast 
6 Movement 4 Ch5 must have a value	000-255	Slow to fast 
7 Colour For strobe effect ch 8 must have value above 10	000-036	Black Out 
	037-072	Red
	073-108	Green
	109-144	Alternately Strobing Red & Green
	145-180	Red On, Strobing Green
	181-216	Green On, Strobing Red
	217-255	Both Red and Green Strobing
8 Strobing	000-009	No Strobing
	010-255	Slow to Fast 

IMPORTANT

For your own safety and full laser safety regulation, we do strongly recommend you do use an optional switch! Available from your local electrical contractor. Used in the remote socket.



Specifications

Mains Input: AC100-240V, 50/60Hz
 Fuse: 250V 1.6A Slow Blow (20mm Glass)
 Total Power: 20W
 Music Control: Internal microphone
 Laser Power: 40mW 532nm Green CW
 100mW 650nm Red CW
 Laser Classification: Class 3B
 Laser Safety Standard: EN60825-1 2007
 Condition Temperature: 10~40°C
 DMX Connections: 3 pins XLR Male/Female
 DMX Channels: 8 channels
 Measurement: See diagram on the right
 Weight: 3.0 Kg

