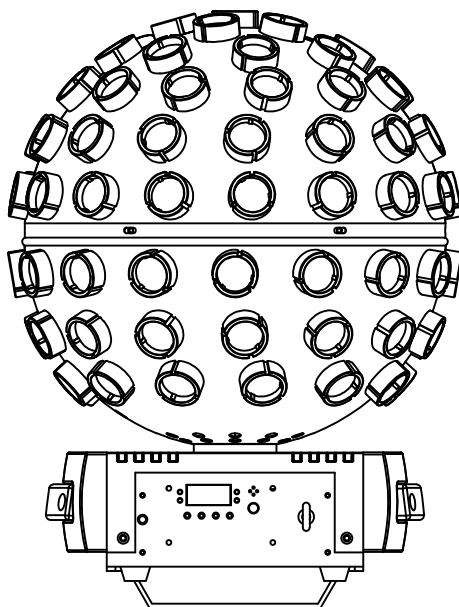


KAM

INSTRUCTION MANUAL

Starburst KML401



Version 1.0



Unpacking Instructions

Read Manual before Operation

Dear user,
Thanks for choosing our LED device.
Before operating this device, please read this manual thoroughly, and retain it for future reference.

Warning Data

Please note the warnings in bold which will ensure the safe and smooth operation. These warnings are important.



Attention! Indicates a skill or other useful information for special situations.



Important! Indicates important information to protect personnel from incident or injury.



Caution! Prevent damage or injury from incorrect operation.

Warning!

Shields, lenses or screens should be changed if they have become visibly damaged to such an extent that their effectiveness is impaired, for example by cracks or deep scratches.

The lamps should be changed if they have become damaged or thermally deformed.

Unpacking Instructions

Carefully unpack the carton, checking contents to ensure that all parts are in good condition. Inform the shipper immediately and retain packing material for inspection if any parts are damaged. Keeping packing materials as evidence for shipper's confirmation.



Attention!





This unit is in perfect condition before delivery, please check all accessories when unpacking the unit. User should follow this user manual to operate this unit, and make sure that you are clear on all laser safety information and unit operation before powering it on. Any wrong operation will make this unit out of warranty.


Carefully moving after receiving it, checking whether there is any damage from shipping, and all the accessories in it.

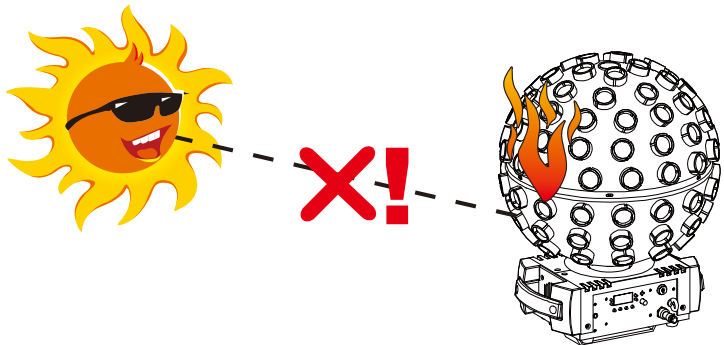
NAME	QTY
LED system	1
Power Cord	1
User manual	1
Packing Case	1

Safety Instructions


Safety Instructions

-  To protect the environment, please try to recycle the packing material as much as possible.
-  The Starburst is for indoor use only, IP20. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other fluids, or metallic objects
-  Don't throw this product away just as general trash, please deal with the product and follow the abandon electronic product regulation in your country.
-  Locate the fixture in a well ventilated spot, away from any flammable materials and/or liquids. The fixture must be fixed at least 20cm from surrounding walls
- ◆ To avoid condensation to be formed inside, allow this unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condensation sometimes prevents the unit from working at full performance or may even cause damages.
- ◆ Don't cover any ventilation openings as this may result in overheating.
- ◆ Don't install it on flammable object.
- ◆ Don not use it when maximum ambient temperature is higher than 40 degree,
- ◆ Unplug the unit when it is not used for a longer time or before replacing the bulb.
- ◆ Don't open the top cover to avoid unit damage.
- ◆ Please use the original packing when the device is to be transported.


 Never expose the lens to direct sunlight, even for a short period, This may damage the light effect or even cause fire!




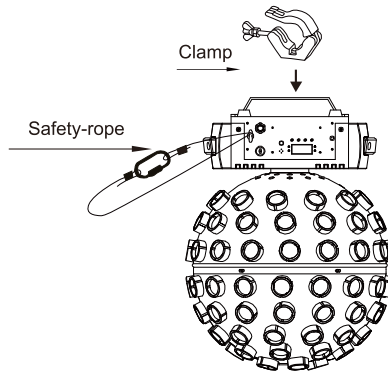
Safety Warnings

- ◆ Always connect the product to a grounded circuit to avoid the risk of electrocution.
 - ◆ Always disconnect the product from the power source before cleaning or replacing the fuse.
 - ◆ Avoid direct eye exposure to the light source while the product is on.
 - ◆ Make sure the power cord is not crimped or damaged.
 - ◆ Never disconnect the product from power by pulling or tugging on the cord.
 - ◆ If mounting the product overhead, always secure to a fastening device using a safety cable.
 - ◆ Make sure there are no flammable materials close to the product when operating.
 - ◆ Do not touch the product's housing when operating because it may be very hot.
-  Keep this User Manual for future use. If you sell the product to another user, be sure to give this document to the next owner.

Overhead Rigging

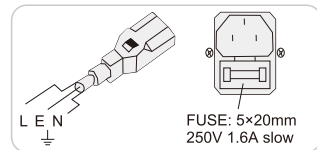
- 
Attention! The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and /or damage to property. Overhead rigging required extensive experience! Working load limits should be respected, Certified installation materials should be used, the installed device should be inspected regularly for safety.
- ◆ Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- ◆ Locate the fixture in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed at least 20cm from surrounding walls
- ◆ The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- ◆ The device should be well fixed; a free swinging mounting is dangerous and may not be considered!
- ◆ Do not cover any ventilation opening as this may result in overheating
- ◆ Before the first time use, it must be inspected by professional staff to make sure safety, inspection regularly every year.

 Before rigging make sure that installation area can hold the 10 times weight of device. Using the steel rope which can hold 12 times weight of device, through the eye-bolt for assisting hang installment.




AC Power

Please use the attached power, note that power voltage and frequency are the same as the marked voltage and frequency of device when connecting power. Every device's power should be connected separately, so that device can be controlled individually.



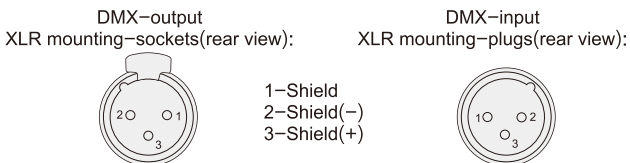
Cable spec.:

Cable(EU)	Cable(US)	Pin	International
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Yellow/Green	Earth	

Product Installation / Remote operation instruction

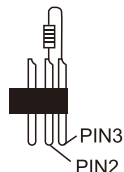
DMX-512 connection

- ◆ Connection between lights and DMX must use a shielded cable diameter more than 0.5mm. Please use the attached 3 pin XLR plug/socket to connect the DMX output/input interface. The connection between socket and cable as below(note the plug/socket's 3 pin number and position).

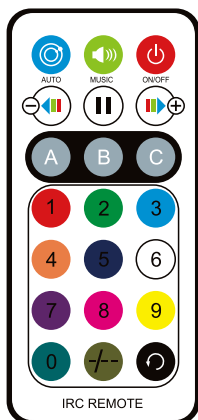


- ◆ Note, XLR plug/socket's 3pin can not be touched by inner hull, connection between pins is not allowed. Except above connection, XLR plug/socket can not be connected with XLR control line. Device receives international standard DMX512(1990) control signal.

- ◆ When using standard DMX512 control signal, the last device's output interface must be connected to a DMX plug. This plug is putting a 120 ohm resistance between "canon" plug's 2 pin and 3 pin. Showing as below pic. Sticking this plug into the last device's signal output interface, it will avoid the interference during the process of signal transmission.



Remote controller

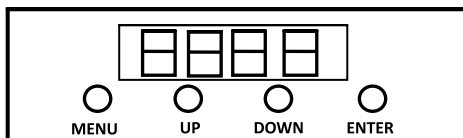


Key	Funntion	Description
	ON/OFF	Turn ON/OFF lights outputs
	Auto Mixed shows	Auto mixed shows for P 01 – P05;
	Sound Mixed shows	Sound mixed shows for snd1–snd3
	adjust speed	In auto mode, use +, - to adjust the program speed, In colour mode, use +, - to adjust motor speed
	Pause	To pause the color change effect
	colour choose	choose different colour
	Programme speed	Programme speed is configured (left arrow = slower, right arrow = faster).

Operation instructions of the button menu

Button Function

Button	Function
MENU	Select mode and return to the previous menu
ENTER	Go to the next level of the menu
UP	navigates upwards through the menu list and increases the numeric value when in a function
DOWN	navigates downwards through the menu list and decreases the numeric value when in a function



MENU instruction

3CH	d001-d510	DMX & master and slave mode	
9CH	d001-d504		
19CH	d001-d494		
C--	C001 ?C023	The program is shown in the table below (C--), the Motor speed is controlled by S-- and the direction is left rotation	
P--	P1	P1 LED show 1	When the speed is greater than 90, the Motor direction is not rotated according to the original program, and it becomes the automatic mode (automatic reversing in 15 seconds).
	P2	P2 LED show 2	
	P3	P3 LED show 3	
	P4	P4 gradient show 1	
	P5	P5 gradient show 2	
S--	S001-S100	auto program speed (slow to fast)	
Snd	Snd1	S1 LED show 1	In the music control, the Motor direction is auto mode (auto reversing in 15 seconds)
	Snd2	S2 LED show 2	
	Snd3	S3 LED show 3	
U--	R000-R255	(Red , 0-100% PWM)	
	G000-G255	(green 0-100% PWM)	
	B000-B255	(blue 0-100% PWM)	
	W000-W255	(white 0-100% PWM)	
	S 000-S100	(LED strobe slow to fast 0.3-20HZ)	
	DI- L (left rotate)	Motor rotation direction	
	DI- R (right rotate)	Motor rotation direction	
M000-M100	Motor speed (M000 = stop/M001-M100 slow to fast)		
SET	ON (IR ON)	IR remote on/off switch	
	OFF (IR OFF)		

Operation instructions of the button menu

LED divided into three areas LED1 , LED2 and LED3

C--			
program number	LED1	LED2	LED3
C1	Red	Red	Red
C2	Green	Green	Green
C3	Blue	Blue	Blue
C4	White	White	White
C5	Red	Green	Blue
C6	Red	Green	Blue
C7	Red	Blue	White
C8	Green	Blue	white
C9	Red Green	Red Blue	Red White
C10	Green Red	Green Blue	Green White
C11	Blue Red	Blue Green	Blue White
C12	White Red	White Green	White Blue
C13	Red Green	Red Green	Red Green
C14	Red Blue	Red Blue	Red Blue
C15	Red White	Red White	Red White
C16	Green Blue	Green Blue	Green Blue
C17	Green White	Green White	Green White
C18	Blue White	Blue White	Blue White
C19	Red Green Blue	Red Green Blue	Red Green Blue
C20	Red Green White	Red Green White	Red Green White
C21	Green Blue White	Green Blue White	Green Blue White
C22	Red Green Blue	Green Blue White	Red Green White
C23	Red Green Blue White	Red Green Blue White	Red Green Blue White

DMX operation instructions

DMX channel instruction

3CH					
Static	1CH	000-005	Black Out		
			LED1	LED2	LED3
		006-013	Red	Red	Red
		014-022	Green	Green	Green
		023-031	Blue	Blue	Blue
		032-040	White	White	White
		041-049	Red	Green	Blue
		050-058	Red	Green	White
		059-067	Red	Blue	White
		068-076	Green	Blue	White
		077-085	Red Green	Red Blue	Red White
		086-094	Green Red	Green Blue	Green White
		095-103	Blue Red	Blue Green	Blue White
		104-112	White Red	White Green	White Blue
		113-121	Red Green	Red Green	Red Green
		122-130	Red Blue	Red Blue	Red Blue
		131-139	Red White	Red White	Red White
		140-148	Green Blue	Green Blue	Green Blue
		149-157	Green White	Green White	Green White
		158-166	Blue White	Blue White	Blue White
		167-175	Red Green Blue	Red Green Blue	Red Green Blue
		176-184	Red Green White	Red Green White	Red Green White
		185-193	Green Blue White	Green Blue White	Green Blue White
194-202	Red Green Blue	Green Blue White	Red Green White		
203-211	Red Green Blue White	Red Green Blue White	Red Green Blue White		
Auto and sound Programs	212-220	P1/S1			
	221-229	P2/S2			
	230-238	P3/S3			
	239-247	P4/S3			
	248-255	P5/S3			
Program speed when channel 1 is between 212-255	2CH	000-250	Speed slow to fast		
		251-255	Sound		
Motor	3CH	0	Stop		
		001-127	Rotate left, slow to fast		
		128	Stop		
		129-255	Rotate right, slow to fast		

DMX operation instructions

9CH					
(LED1&LED2&LED3)	1CH	000-255	Red , 0-100% PWM		
	2 CH	000-255	Green , 0-100% PWM		
	3 CH	000-255	Blue , 0-100% PWM		
	4 CH	000-255	W , 0-100% PWM		
	5 CH	000-005	No Strobe		
006-250		Strobe slow to fast			
251-255		Sound			
Motor	6 CH	000	Stop		
		001-127	Rotate left, slow to fast		
		128	Stop		
		129-255	Rotate right, slow to fast		
Static	7CH	000-005	LED1	LED2	LED3
		006-013	Red	Red	Red
		014-022	Green	Green	Green
		023-031	Blue	Blue	Blue
		032-040	White	White	White
		041-049	Red	Green	Blue
		050-058	Red	Green	white
		059-067	Red	Blue	White
		068-076	Green	Blue	White
		077-085	Red Green	Red Blue	Red White
		086-094	Green Red	Green Blue	Green White
		095-103	Blue Red	Blue Green	Blue White
		104-112	White Red	White Green	White Blue
		113-121	Red Green	Red Green	Red Green
		122-130	Red Blue	Red Blue	Red Blue
		131-139	RedWhite	Red White	Red White
		140-148	Green Blue	Green Blue	Green Blue
		149-157	Green White	Green White	Green White
		158-166	Blue White	Blue White	Blue White
		167-175	Red Green Blue	Red Green Blue	Red Green Blue
		176-184	Red Green White	Red Green White	Red Green White
		185-193	Green Blue White	Green Blue White	Green Blue White
		194-202	Red Green Blue	Green Blue White	Red Green White
		203-211	Red Green Blue White	Red Green Blue White	Red Green Blue White
		Auto and sound Programs	212-220	P1/S1	
221-229	P2/S2				
230-238	P3/S3				
239-247	P4/S3				
248-255	P5/S3				
Program speed when	8CH	000-250	Speed slow to fast		

DMX operation instructions

channel 7 is between 212-255		251-255	Sound
Motor	9CH	0	Stop
		001-127	Rotate left, slow to fast
		128	Stop
		129-255	Rotate right, slow to fast

19Ch					
(LED1)	1CH	000-255	Red , 0-100% PWM		
	2 CH	000-255	Green , 0-100% PWM		
	3 CH	000-255	Blue , 0-100% PWM		
	4 CH	000-255	W , 0-100% PWM		
	5 CH	000-005	No Strobe		
		006-250	Strobe slow to fast		
251-255		Sound			
(LED2)	6CH	000-255	Red , 0-100% PWM		
	7 CH	000-255	Green , 0-100% PWM		
	8 CH	000-255	Blue , 0-100% PWM		
	9 CH	000-255	W , 0-100% PWM		
	10 CH	000-005	No Strobe		
		006-250	Strobe slow to fast		
251-255		Sound			
(LED3)	11CH	000-255	Red , 0-100% PWM		
	12 CH	000-255	Green , 0-100% PWM		
	13 CH	000-255	Blue , 0-100% PWM		
	14 CH	000-255	W , 0-100% PWM		
	15 CH	000-005	No Strobe		
		006-250	Strobe slow to fast		
251-255		Sound			
Motor	16 CH	000	Stop		
		001-127	Rotate left, slow to fast		
		128	Stop		
		129-255	Rotate right, slow to fast		
Static	17CH	000-005	Black Out		
			LED1	LED2	LED3
		006-013	Red	Red	Red
		014-022	Green	Green	Green
		023-031	Blue	Blue	Blue
		032-040	White	White	White
		041-049	Red	Green	Blue
		050-058	Red	Green	White
		059-067	Red	Blue	White
		068-076	Green	Blue	White
		077-085	Red Green	Red Blue	Red White
		086-094	Green Read	Green Blue	Green White

DMX operation instructions

		095-103	Blue Red	Blue Green	Blue White
		104-112	White Red	White Green	White Blue
		113-121	Red Green	Red Green	Red Green
		122-130	Red Blue	Red Blue	Red Blue
		131-139	Red White	Red White	Red White
		140-148	Green Blue	Green Blue	Green Blue
		149-157	Green White	Green White	Green White
		158-166	Blue White	Blue White	Blue White
		167-175	Red Green Blue	Red Green Blue	Red Green Blue
		176-184	Red Green White	Red Green White	Red Green White
		185-193	Green Blue White	Green Blue White	Green Blue White
		194-202	Red Green Blue	Green Blue White	Red Green White
		203-211	Red Green Blue White	Red Green Blue White	Red Green Blue White
Auto and sound Programs		212-220	P1/S1		
		221-229	P2/S2		
		230-238	P3/S3		
		239-247	P4/S3		
		248-255	P5/S3		
Program speed when channel 17 is between 212-255	18CH	000-250	Speed slow to fast		
		251-255	Sound		
Motor	19CH	0	Stop		
		001-127	Rotate left, slow to fast		
		128	Stop		
		129-255	Rotate right, slow to fast		

Specification instructions

Product type : KML401 STARBURST

Colour spectrum: RGBW

LED type: 5 LEDs (3 segments controllable via DMX)

LED type: 8W 4-in-1 LED

DMX input: 3-pin male XLR

DMX output: 3-pin female XLR

DMX functions: 3-channel, 9-channel, 19-channel

Standalone functions: Auto, sound , master/slave ,
DMX512, IR remote control

Control system: DMX512, IR remote control

Operating voltage: 100-240 V AC/50–60 Hz

Power consumption: 50 W

Fuse: T1.6AL/250 V

Dimensions: 390 x 320 x 320 mm

Weight: 3.9 kg



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