INSTRUCTION MANUAL

Kam Vector6

Multi-head pinspot scanning beam effects

MANUAL VERSION 1.0

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

www.kam.co.uk

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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 it's performance, please read these instructions carefully to familiarise yourself with the basic operations of the unit. 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.

The unit is powered by the mains, 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 requirements of the unit.

The lightning flash symbol inside a triangle is 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. Please read and pay attention to all laser safety warning sticker labels on the unit.

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 41ºF / 5ºC or exceeding 95ºF / 35ºC).

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 cleaning of the unit.

Manufacturer declarations

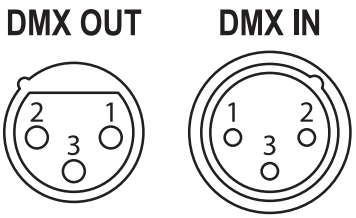
In compliance with the following requirements: **RoHS Directive (2002/95/EU)** and **WEEE Directive (2002/96/EU).**
If this product is ever no longer functional please take it to a recycling plant for environmentally friendly disposal.

CE declaration of conformity
R&TTE Directive (1999/5/EU), EMC Directive (2004/108/EU), Low Voltage Directive (2006/95/EU).
The declarations are available on application from certification@lambaplc.com
Before putting the devices into operation, please observe the respective country-specific regulations.

AC power
The unit is supplied with a power plug appropriate to its voltage. Should any other connections be required they must be carried out with the following configuration:

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

DMX-512 connection
If you are using a standard DMX controller, you can connect the DMX output of the controller directly to the DMX input of the first unit in a DMX chain. If you wish to connect a DMX controller with other XLR outputs you will need to use adapter cables.



XLR female XLR male 1 = ground 2 = minus signal (-) 3 = plus signal (+)

Connect the DMX output of the first unit in a DMX chain with the DMX input of the next unit in the chain. Always connect the the output of one unit with the input of the next unit until all units are connected. If you use a controller with 5 pin DMX connection you will need to use a 5 pin to 3 pin adapter.

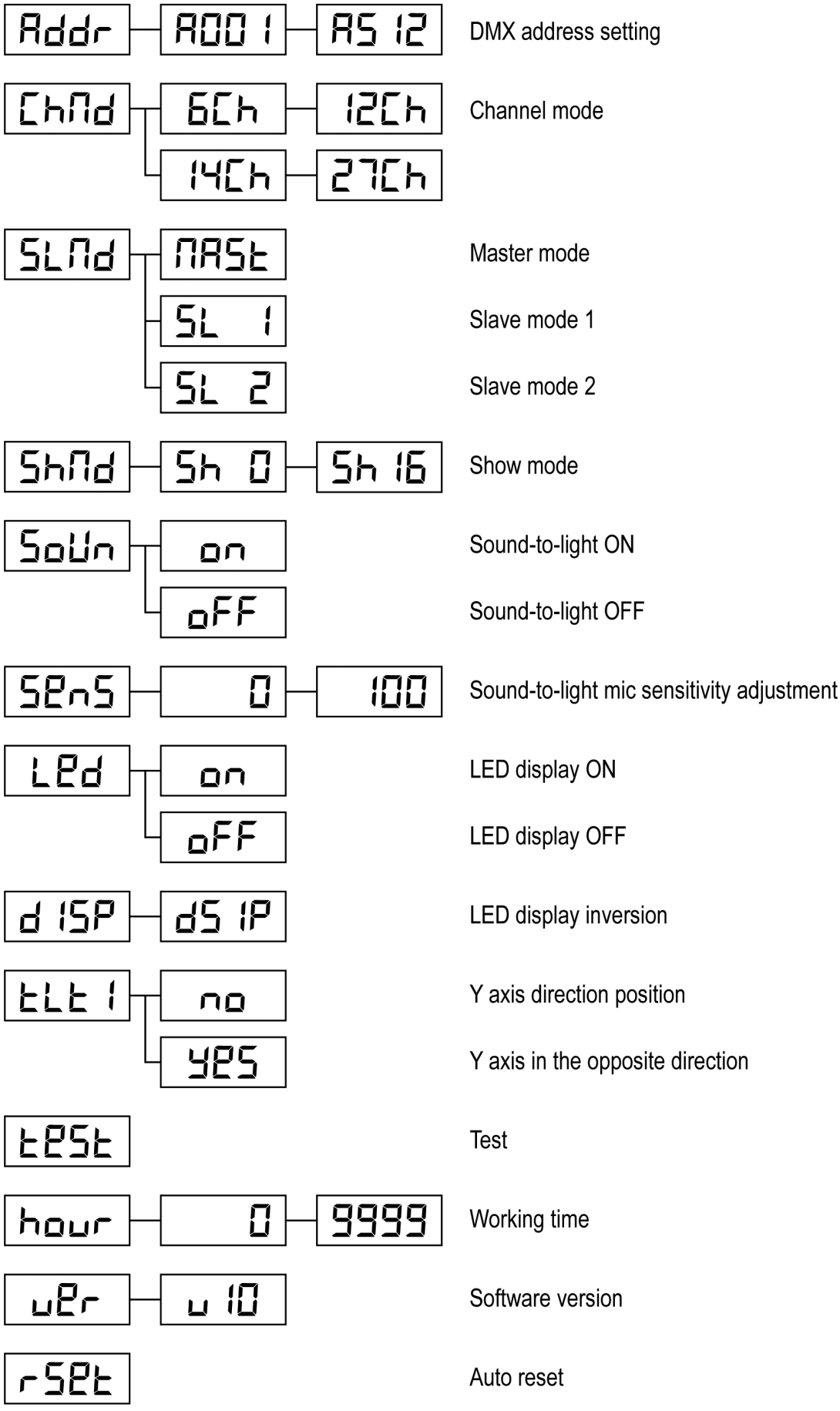
Overhead rigging
Important - the installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and /or damage to property. Overhead rigging required extensive experience. Working load limits should be respected, certified installation materials should be used, the installed unit 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 unit in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed **at least 50cm** from surrounding walls
- The device should be installed out of reach of people and outside of areas where persons may walk by or be seated.
- Before rigging make sure that the installation area can hold minimum point load of 10 times the device's weight.
- The device should be well fixed; a free swinging mounting is dangerous.
- Do not cover any ventilation opening as this may result in overheating

Before first time use, the unit should be inspected for safety. Inspection the unit regularly every year.

Quick Start Guide
After connecting your unit to the mains, use the Function menu on the side panel of the unit to set the operating mode.
Use the MENU button to make a function selection, then press ENTER to confirm it. Next use the UP and DOWN arrow buttons to refine your selection, then use the ENTER button to confirm your setting.

LED Function menu



Channel mode - choose A001 as the default address code.

1. DMX512 address setting (Addr)
Select **Addr** in the Function Menu and press the **Enter** button to confirm. Using the **Up/Down** buttons, select your initial address and press the **Enter** button to confirm. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

2. Channel mode (Chnd)
Select **Chnd** in the Function Menu and press the **Enter** button to confirm. Using the **Up/Down** buttons, select a channel (e.g. **6Ch** which is 6 channel mode) and press the **Enter** button to confirm your choice (6, 12, 14 or 27). Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

3. Master/Slave mode (SLnd)
Select **SLnd** in the Function Menu and press the **Enter** button to choose between **NASt** (Master mode) or **SL1** (Slave 1 mode) or **SL2** (Slave 2 mode). Press the **Enter** button to confirm your choice. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

4. Show mode (Shnd)
Select **Shnd** in the Function Menu and press the **Enter** button to confirm. Using the **Up/Down** buttons, select a show (e.g. **Sh0 -** random show, **Sh1** - show 1, **Sh2** - show 2 and so on) and press the **Enter** button to confirm your choice. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

5. Sound-to-Light mode (SoUn)
Select **SoUn** in the Function Menu and press the **Enter** button to confirm. Using the **Up/Down** buttons, select either **ON** or **OFF** and press the **Enter** button to confirm your choice. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

6. Sound-to-Light microphone sensitivity (SenS)
Select **SenS** in the Function Menu and press the **Enter** button to confirm. Using the **Up/Down** buttons, select a microphone sensitivity setting (from 0-100) and press the **Enter** button to confirm your choice. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

7. LED display setting (Led)
Select **Led** in the Function Menu and press the **Enter** button to confirm. Using the **Up/Down** buttons, select either **ON** or **OFF** and press the **Enter** button to confirm your choice. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

8. LED display inversion (dISP)
Select **dISP** in the Function Menu and press the **Enter** button to confirm. Choose either **dISP** which is the normal display setting or **dSIP** which rotates the display 180 degrees (inverts). Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

9. Y axis position (tLtl)
Select **tLtl** in the Function Menu and press the **Enter** button to confirm. Using the **Up/Down** buttons, select either **NO** (the first row, Y axis position) or **YES** (the first row, Y axis reverse position) after choosing press the **Enter** button to confirm your choice. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

10. Test mode (teSt)
Select **teSt** in the Function Menu and press the **Enter** button to confirm. The LED display will flash and the unit will run a built-in self-test program. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

11. Working time (hour)
Select **hour** in the Function Menu and press the **Enter** button to confirm. The LED display will show the working time of the unit. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

12. Software version (uer)
Select **uer** in the Function Menu and press the **Enter** button to confirm. The LED display will show the software version. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

13. Auto-reset function (rSet)
Select **rSet** in the Function Menu and press the **Enter** button to confirm. The unit will auto reset. Press the **Menu** button to return to the main menu or wait 10 seconds and this will happen automatically.

1. Master/Slave operaton
You can link multiple units together in Master/Slave mode. To achieve this you will need to set the first unit in the chain as the **Master** unit and then set all other linked units as **Slave** units.

Using DMX cables, link the units from the DMX output of the first (**Master**) unit to the DMX input of the second (**Slave**) unit, then link the DMX output of the second unit to the DMX input of the third unit and so on.

Next set the first unit to be the **Master**:

1. Press the **Menu** button and choose **SLnd**
2. Press the **Enter** button
3. Set the unit to **NASt**
4. Press the **Enter** button to confirm your choice
5. Next set the unit to Show mode **Shnd** (and choose a show (0-16)

Next set the other units to be **Slave mode**:

6. Press the **Menu** button and choose **SLnd**
7. Press the **Enter** button
8. Set the units to **SL1** (normal Slave mode) or **SL2** (dual light show mode)
9. Press the **Enter** button to confirm your choice

All unit should now operate in Master/Slave mode where all units operate the same show as the first unit in the chain. If you are only joining two units in Master/Slave mode, it is reccomended to us **SL2** Slave mode.

2. DMX controller operation
If you intend to operate the unit using a DMX controller, then you need to begin by setting the address. Choose A001 as the default address. Below are the DMX channel function tables for each DMX mode.

6 channel DMX mode

Channel	Value	Function
1	000-255	Full dimmer 0 - 100%
2	000-255	Strobe, slow to fast
3	000-007	No function
	008-022	Show 1
	023-037	Show 2
	038-052	Show 3
	053-067	Show 4
	068-082	Show 5
	083-097	Show 6
	098-112	Show 7
	113-127	Show 8
	128-142	Show 9
	143-157	Show 10
	158-172	Show 11
	173-187	Show 12
	188-202	Show 13
	203-217	Show 14
	218-232	Show 15
	233-247	Show 16
	248-255	Sound-to-Light mode
4	000-255	Show mode speed adjustment, slow to fast
5	000-014	Static LED colour change Show
	015-255	Colour chase
6	000-255	Colour chase, slow to fast

12 / 14 channel DMX mode

Channel		Value	Function
	1	000-255	Full dimmer 0 - 100%
	2	000-255	Strobe, slow to fast
1	3	000-255	First head, Y axis position
2	4	000-007	First head colour select
		008-024	Red
		025-041	Blue
		042-057	Green
		058-074	White
		075-090	Red & green
		091-107	Red & blue
		108-123	Red & white
		124-140	Green & blue
		141-156	Green & white
		157-173	Blue & white
		174-189	Red, green & blue
		190-206	Red, green & white
		207-222	Red, blue & white
		223-239	Green, blue & white
		240-255	Red, green, blue & white
3	5	000-255	Second head, Y axis position
4	6	000-255	Second head colour select
5	7	000-255	Third head, Y axis position
6	8	000-255	Third head colour select
7	9	000-255	Fourth head, Y axis position
8	10	000-255	Fourth head colour select
9	11	000-255	Fifth head, Y axis position
10	12	000-255	Fifth head colour select
11	13	000-255	Sixth head, Y axis position
12	14	000-255	Sixth head colour select

27 channel DMX mode

Channel	Value	Function
1	000-255	Full dimmer 0 - 100%
2	000-255	Strobe, slow to fast
3	000-255	First head, Y axis position
4	000-255	First head, Y axis fine position
5	000-255	First head speed, fast to slow
6	000-255	First head colour
7	000-255	Second head, Y axis position
8	000-255	Second head, Y axis fine position
9	000-255	Second head speed, fast to slow
10	000-255	Second head colour
11	000-255	Third head, Y axis position
12	000-255	Third head, Y axis fine position
13	000-255	Third head speed, fast to slow
14	000-255	Third head colour
15	000-255	Fourth head, Y axis position
16	000-255	Fourth head, Y axis fine position
17	000-255	Fourth head speed, fast to slow
18	000-255	Fourth head colour
19	000-255	Fifth head, Y axis position
20	000-255	Fifth head, Y axis fine position
21	000-255	Fifth head speed, fast to slow
22	000-255	Fifth head colour
23	000-255	Sixth head, Y axis position
24	000-255	Sixth head, Y axis fine position
25	000-255	Sixth head speed, fast to slow
26	000-255	Sixth head colour
27	000-199	No function
	200-209	Reset
	210-240	No function
	241-255	Sound-to-Light control mode

Technical specifications

Kam Vector6	
Mains power	AC 110-240V 50/60Hz
Mains connection	IEC mains input and output
Control modes	DMX512 / Auto Show / Sound-to-Light / Master/Slave
Light source	6 x 10w RGBW 4-in-1 CREE LEDs
Colours	Red, green, blue and white
Dimming	0 to 100%
Red lumin / 1m	10000 Lux per LED
Green lumi / 1m	17000 Lux per LED
Blue lumi / 1m	26000 Lux per LED
White lumi / 1m	28000 Lux per LED
Control setting	4 buttons plus function setting LED display
Operating temperature	10~40°
DMX512 connections	3 pins XLR input (male) and output (female)
DMX512 channels	6 / 12 / 14 / 27
Dimensions (WxDxH)	400 x 300 x 225mm
Nett weight	6.7Kg