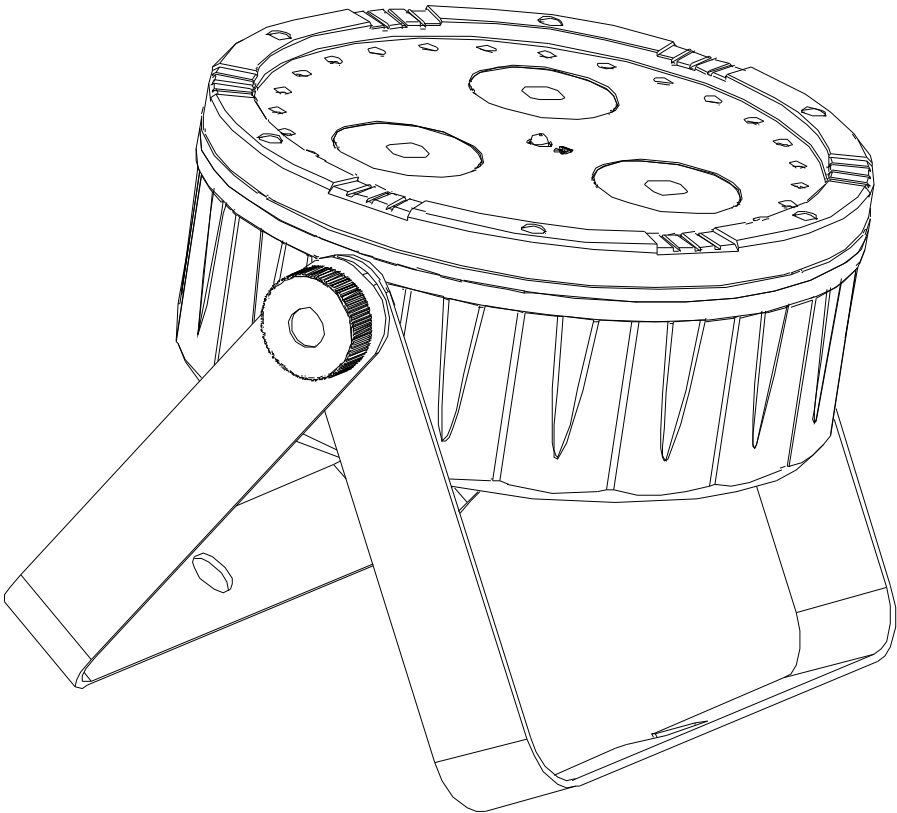


KAM

INSTRUCTION MANUAL

Par 59 Light

KML405



OPERATION:

The Kam KML405 is an effects spotlight which combines 3 RGBWA+UV 6-in-1 LEDs and 27 SMD LEDs. The 2 effects can be controlled independently of one another. The KML405 effects spotlight can be used as a stand-alone unit, in master/slave operation, via music control, IR remote control and via DMX-512 protocol.

FRONT



❶ CENTRE LEDS

Three 6-in-1 RGBWA+UV LEDs with control via DMX.

❷ SMD LED RING

Nine segments, each with three SMD RGB LEDs arranged in a ring. The segments are controlled separately via integrated auto-programmes (no separate control via DMX, not dimmable).

❸ INFRARED INTERFACE

Controlling the effects spotlight with the supplied infrared remote control. Ensure that the infrared interface of the remote control is positioned within 8 m of the effects spotlight, directly in -line with its infrared interface.

❹ Stand or mounting bracket.

❺ Wingnuts to secure the bracket.

CONNECTIONS, OPERATING AND DISPLAY ELEMENTS



6 POWER IN

IEC mains input socket with built-in fuse holder. Operating voltage 100-240V AC/50-60Hz. A suitable IEC power cable is included.
IMPORTANT: Replace the fuse only with a fuse of the same type and of the same value according to the stamp on the housing! In the event of repeated fuse failure, please contact an authorised service centre.

7 POWER OUT

IEC power output socket. Facilitates power supply to other lights. Ensure that the total current consumption of all connected devices does not exceed the value specified on the device in amperes (A).

8 DMX IN

Male 3-pin XLR socket for connection to a DMX control device (e.g. DMX console).

9 DMX OUT

Female 3-pin XLR socket for sending the DMX control signal.

10 LED DISPLAY

Displays the current operating mode and other system settings.

11 CONTROL BUTTONS

MODE: Press the MODE button to move up one level in the menu structure.

ENTER: Confirms programme selection and value changes.

UP and **DOWN:** Selection of the main menu items, programmes, change settings, such as programme speed and DMX address.

12 MIC SENSITIVITY

Control dial for setting the microphone sensitivity in standalone music-control mode, control via IR remote control and in DMX sound-control mode. Turn anti-clockwise to reduce sensitivity and clockwise to increase sensitivity.

13 HOUSING FAN

In order to avoid overheating of the device, ensure that the fan is not obstructed and that air can circulate freely.

14 SECURING LUG

Eyelet for safety rope. Overhead installation must only be carried out by qualified personnel. The spotlight must be fitted with a suitable safety rope to ensure that it does not fall down.

OPERATION

A few seconds after connecting to the mains, the effects spotlight is ready for operation and the previously selected operating mode is activated. During the start-up process, the software version is displayed briefly (Vx.xx).

To access the top level of the menu structure, press the **MODE** button several times if necessary. The display now shows one of the main menu items, **Addr** (DMX address), **chAn** (DMX modes), **ModE** (stand-alone modes) **Set** (system settings) or **information** (displays system software version). To select one of the main menu items, use the UP and DOWN keys and confirm with **ENTER**.

ACTIVATING DMX-CONTROL, CONFIGURING DMX START-ADDRESS (Addr)

As previously described, use the UP and DOWN buttons to select the menu item **Addr** and confirm with **ENTER**. The currently configured DMX start address will now be displayed. Using the UP and DOWN buttons, configure the desired DMX start address and press **ENTER** to confirm.



SETTING DMX MODE (chAn)

As previously described, use the UP and DOWN buttons to select the menu item **chAn** and confirm with **ENTER**. The currently configured DMX mode is now displayed (3ch1, 3ch2, 07ch, 12ch, 13ch). Using the UP and DOWN buttons, configure the desired DMX mode and press **ENTER** to confirm. Tables with the channel assignment of the different DMX modes can be found in these instructions under **DMX CONTROL**.



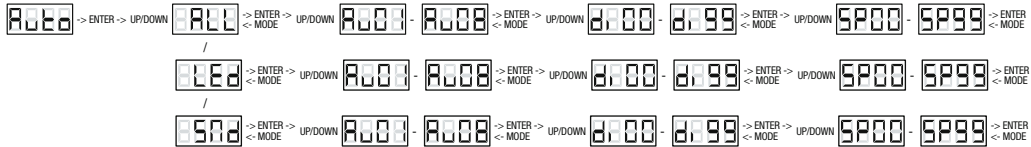
STADALONE MODES (ModE)

As previously described, use the UP and DOWN buttons to select the menu item **ModE** and confirm with **ENTER**. Use the UP AND DOWN buttons to select the desired stand-alone mode and confirm with **ENTER** (**Auto** = programmes with automatic control, **Soun** = music-controlled programmes, **SLAV** = master/slave mode, **Stat** = static mode to set a 'scene').



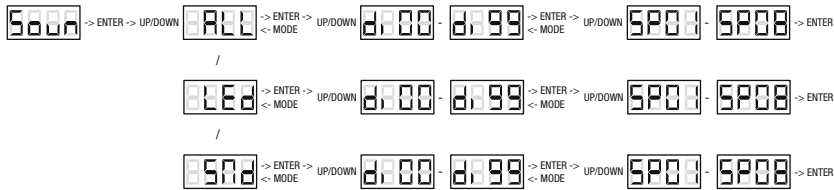
AUTOMATIC CONTROL (Auto)

In the main menu, use the UP and DOWN buttons to select the menu item **ModE** and confirm with ENTER, then select **Auto** and confirm again with ENTER. Use the UP and DOWN buttons to select the desired category from the three different programme categories **ALL**, **LEd** and **SMD** and confirm with ENTER (**ALL** = centre LEDs RGBWA+UV plus SMD LED ring, **LEd** = centre LEDs RGBWA+UV, **SMD** = SMD LED ring). Using the UP and DOWN buttons, you can now select one of the auto programmes from the respective programme category (Au01-Au08). After you have confirmed the entry by pressing ENTER, use the UP and DOWN buttons to adjust the overall brightness of the centre LEDs from di00 to di99 and confirm with ENTER (brightness of the SMD LED ring is not adjustable). Use the UP and DOWN buttons to select the desired programme run speed in the selected menu item (SP00 = minimum speed, SP99 = maximum speed). Confirm with ENTER. If the operating buttons are inactive for approximately one minute, the display changes to 'Auto'.



MUSIC-CONTROLLED PROGRAMMES (Soun)

In the main menu, use the UP and DOWN buttons to select the menu item **ModE** and confirm with ENTER, then select **Soun** and confirm again with ENTER. Use the UP and DOWN buttons to select the desired category from the three different programme categories **ALL**, **LEd** and **SMD** and confirm with ENTER (**ALL** = centre LEDs RGBWA+UV plus SMD LED ring, **LEd** = centre LEDs RGBWA+UV, **SMD** = SMD LED ring). Use the UP and DOWN buttons to adjust the overall brightness of the centre LEDs from di00 to di99 and confirm with ENTER (brightness of the SMD LED ring is not adjustable). Using the UP and DOWN buttons, you can now select one of the music-controlled programmes from the respective programme category (SP01-SP08). The sensitivity with which the programmes react to sound (bass impulses) can be set as required using the MIC SENSITIVITY control. Turn anti-clockwise to reduce sensitivity and clockwise to increase sensitivity. If the operating buttons are inactive for approximately one minute, the display changes to 'Soun'.



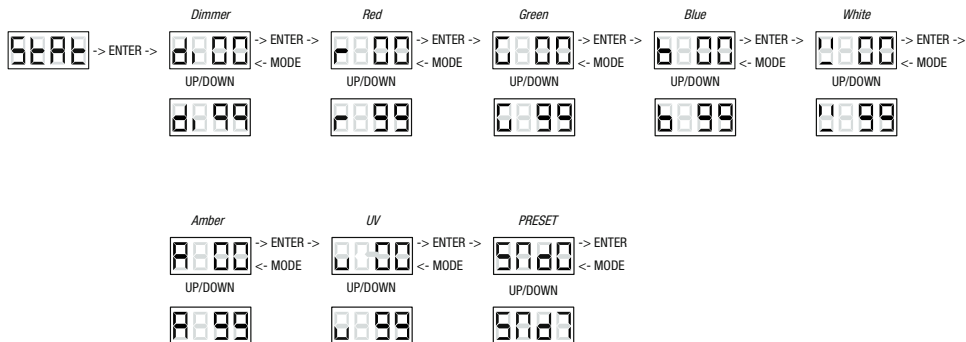
MASTER/SLAVE MODE (SLAV)

In the main menu, use the UP and DOWN buttons to select the menu item **ModE**, confirm with ENTER and then activate the slave mode, by selecting the menu item **SLAV** by using UP AND DOWN and confirm with ENTER. Connect the slave and the master unit (same model) with a DMX cable (Master = DMX OUT, Slave = DMX IN) and enable one of the standalone modes on the master unit (automatic-control, music-controlled programmes, colour-blend, static). Now the slave unit will follow the master unit.



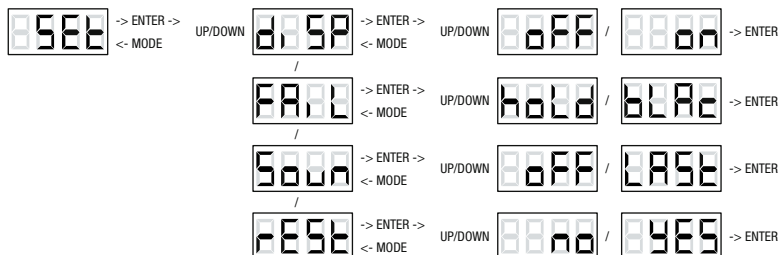
STATIC MODE (StAt)

The static mode enables you to adjust the brightness of the 6 colours of the RGBWA+UV centre LEDs separately and thus create an almost unlimited number of different colours (colour mixing). In addition, one of the 7 colour presets (7 presets + blackout) of the SMD LED ring can be activated. From the main menu, use UP and DOWN to select the menu item **ModE**, confirm with ENTER and then use UP and DOWN to select the menu item **StAt** and confirm with ENTER. Now you can use the UP and DOWN buttons to adjust the overall brightness of the centre LEDs from di00 to di99. Press ENTER to confirm. Now adjust the brightness for red, green, blue, white, amber and UV in the same way. After the setting for UV is confirmed with the ENTER key, one of the seven colour presets for the SMD-LED can be selected with the UP and DOWN buttons (SMd0 = blackout, 1 = red, 2 = green, 3 = blue, 4 = yellow, 5 = magenta, 6 = cyan, 7 = white). Confirm with ENTER.



SYSTEM SETTINGS (SEt)

The menu item System settings enables shut-down of the display, display of mode status in the event of DMX signal fault, configuration of the spotlight in music-controlled programmes mode and reset of all settings. Use UP and DOWN to select the menu item **SEt** from the main menu and confirm with ENTER. Now select the desired menu item with UP and DOWN and edit it as required (select with UP and DOWN, press ENTER).



System settings (SEt)				
diSP	=	Display shutdown	on	= display shuts down after approx. 30 seconds of inactivity
			oFF	= Display shutdown disabled
FAiL	=	operating status with DMX signal fault	hoLd	= last DMX command will be retained
			blAc	= Blackout
SouN	=	Operation of the spotlight in music-controlled programmes when silent	LAsT	= The last scene will be retained
			oFF	= Blackout
rESt	=	reset to factory settings	no	= Do not perform reset by pressing ENTER
			yES	= Perform reset by pressing ENTER

SYSTEM SOFTWARE (inFo)

Use UP and DOWN to select the menu item **inFo** from the main menu and confirm with ENTER. Now press ENTER again to display the software version.














DISPLAY ORIENTATION

The orientation of the display characters can be rotated by 180° by pressing and holding the MODE and DOWN buttons simultaneously for approximately one second.

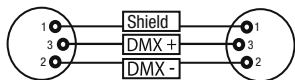
IR REMOTE CONTROL



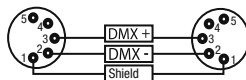
Aim the infrared remote control directly at the infrared sensor on the front of the lamp. The maximum range is approximately 8 metres. In DMX and slave modes, the spotlight's IR sensor is deactivated.		
 ON/OFF	Blackout	The blackout button is used to switch off the centre LEDs and the SMD LED ring, regardless of operating mode enabled via the remote control. Press the blackout button again to reactivate the previously selected mode.
 AUTO	Auto programme	Press the AUTO button to activate the previously selected auto programme. Repeated pressing activates each of the auto programmes 01 to 08. Category selection is performed with buttons A, B and C (A = centre LEDs RGBWA+UV plus SMD LED ring, B = centre LEDs RGBWA+UV, C = SMD LED ring). Programme speed is configured using the arrow keys (left arrow = slower, right arrow = faster).
 MUSIC	Music-control	Press the MUSIC button to activate the previously selected music-controlled programme. Repeated pressing activates each of the music-controlled programmes 01 to 08. Category selection is performed with buttons A, B and C (A = centre LEDs RGBWA+UV plus SMD LED ring, B = centre LEDs RGBWA+UV, C = SMD LED ring). Adjust the microphone sensitivity with MIC SENSITIVITY knob on the device.
		No function
	Programme speed	Programme speed is configured using the arrow keys (left arrow = slower, right arrow = faster).
	Centre LEDs + SMD LEDs	Press button A to activate the centre LEDs and the SMD LED ring for stand-alone modes auto programmes, music-control and static mode.
	Centre LEDs	Press button B to activate the centre LEDs for stand-alone modes auto programmes, music-control and static mode.
	SMD LEDs	Press button C to activate the SMD LED ring for stand-alone modes auto programmes, music-control and static mode.
	Static mode	Press one of the buttons 1 to 7 to activate the static mode and one of the 7 colour presets (1 = red, 2 = green, 3 = blue, 4 = yellow, 5 = magenta, 6 = cyan, 7 = white. Buttons 8, 9 and 0 are non-functioning).
		No function
		No function

Pin Assignment

DMX cable with 3-pin XLR connectors:



DMX cable with 5-pin XLR connectors (pin 4 and 5 are not used):



DMX TERMINATORS (TERMINATING RESISTORS)

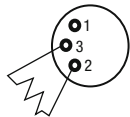
To prevent system errors, the last device in a DMX chain needs to be equipped with a terminating resistor (120 ohm, 1/4 Watt).

3-pin XLR connector with a terminating resistor: K3DMXT3

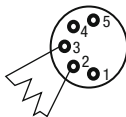
5-pin XLR connector with a terminating resistor: K3DMXT5

Pin Assignment

3-pin XLR connector:



5-pin XLR connector:



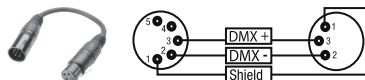
DMX ADAPTER

The combination of DMX devices with 3-pin connectors and DMX devices with 5-pin connectors in a DMX chain is possible with suitable adapters.

Pin Assignment

DMX Adapter 5-pin XLR male to 3-pin XLR female:

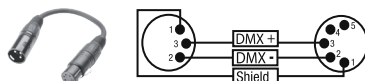
Pins 4 and 5 are not used.



Pin Assignment

DMX Adapter 3-pin XLR male to 5-pin XLR female:

Pins 4 and 5 are not used.



TECHNICAL DATA

Product number:	KML405
Product type:	LED effects
Type:	2-in-1 effect spotlight
Colour spectrum centre LEDs:	RGBWA+UV
Number of centre LEDs:	3
LED type centre LEDs:	12W 6-in-1
Colour spectrum SMD LED ring:	RGB
Number of SMD LED rings:	27
LED type SMD LED ring:	0.5W Tri
DMX input:	3-pin male XLR
DMX output:	3-pin female XLR
DMX mode:	3-Channel 1, 3-channel 2, 7-channel, 12-channel, 13-channel
DMX functions:	dimmer, auto programmes, pattern, strobe, colour macro, RGBWA+UV, SMD LED ring
Standalone functions:	auto programmes, sound programmes, master/slave, static mode
Control:	DMX512, IR remote control
Operating controls:	Mode, Enter, Up, Down, IR Remote Control, Mic Sensitivity
Display elements:	4-digit LED display

Power connection:	IEC input IEC output (max. 7.5 A)
Operating voltage:	100-240 V AC, 50-60 Hz
Power consumption:	60W
Fuse:	T1A / 250 V (5 x 20mm)
Ambient temperature (in operation):	10-40°C
Relative air humidity:	<85%, non-condensing
Housing material:	ABS/metal
Housing colour:	black
Housing cooling:	fan
Dimensions (W x H x D, without bracket):	175 x 175 x 95 mm
Weight:	1.2 kg
Additional features:	adjustable mounting bracket, IR remote control included

UK DISTRIBUTOR
John Hornby Skewes & Co. Ltd.
 Salem House, Parkinson Approach, Garforth,
 Leeds LS25 2HR, United Kingdom.
www.jhs.co.uk

Authorized EU Representative: Pieters Medical Agencies
 Spornlaan 19, 5487 ZP Veghel, Netherlands





