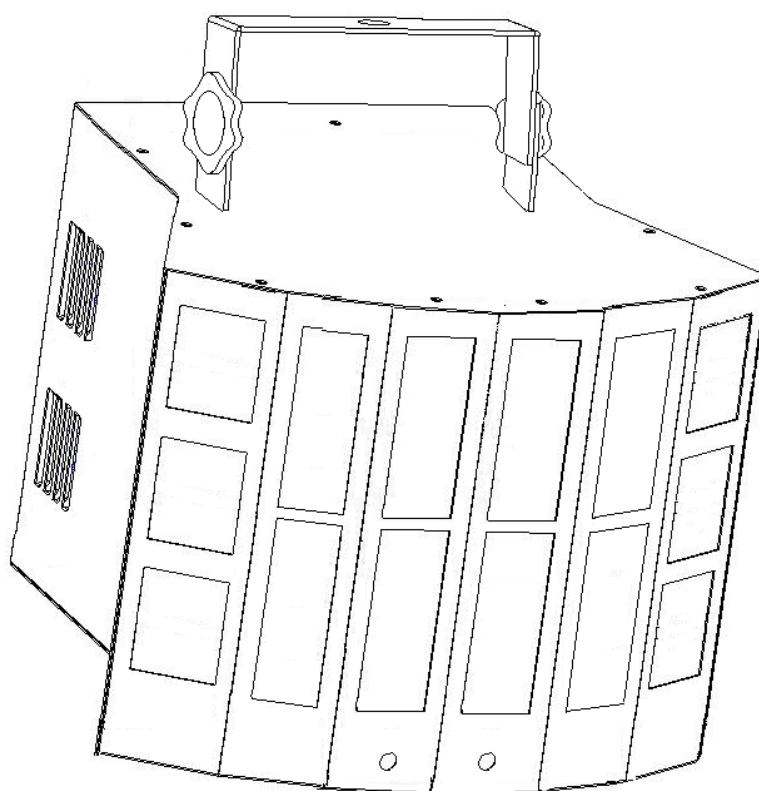


SURGE

DERBY + LASER/UV/STROBE EFFECT

Item ref: 151.597UK

User Manual



Version 1.0



Caution: Please read this manual carefully before operating
Damage caused by misuse is not covered by the warranty

Introduction

Thank you for choosing the SURGE effect light as part of your light show. This compact fixture is a complete lighting effects solution in a single fixture, featuring LED Derby with Strobe, UV and Red/Green Laser functions, all controllable from DMX, internal or remote control. Please read and keep the following instructions for future reference.

SAFETY SYMBOL AND MESSAGE CONVENTIONS



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

AVIS
RISQUE DE CHOC ELECTRIQUE NE
PAS OUVRIR



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

Warning

To prevent the risk of fire or electric shock, do not expose any components to moisture. If liquids are spilled on the housing, stop using immediately, allow unit to dry out and have checked by qualified personnel before further use. Avoid impact, extreme pressure or heavy vibration to the case. No user serviceable parts inside – Do not open the case – refer all servicing to qualified service personnel.

Safety

Check for correct mains voltage and condition of IEC lead before connecting to a power outlet. Do not allow any foreign objects to enter the case or connectors.

Placement

- Keep away from damp or dusty environments
- Use the included tripod stand for installation onto a stable surface
- Ensure adequate air-flow around the fixture housings
- Ensure adequate access to controls and connections

Caution: Laser radiation

Avoid pointing directly towards eyes. Laser output can cause injury if viewed directly. This product is a Class 3B laser and should only be installed and used by personal who are trained in the management of laser radiation and are able to operate in accordance within the guidance given by the Health and Safety Executive (HSE) in HS(G)95: "The Radiation Safety of Lasers used for Display purposes". Copies of this guide can be downloaded from the HSE website: www.hse.gov.uk/pubns/priced/hsg95.pdf



Cleaning

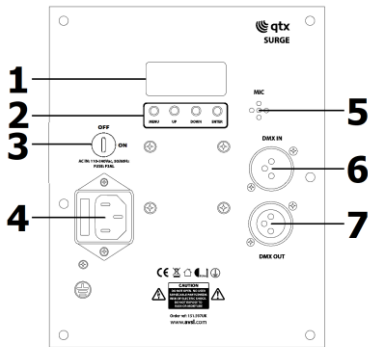
- Use a soft cloth with a neutral detergent to clean the casing as required
- Use a vacuum cleaner to clear ventilation grilles of any dust or debris build-ups
- Do not use strong solvents for cleaning the unit

In the box

Please open the package carefully and check that all contents are present and in good condition. Contact your retailer if any part is missing or broken.

- SURGE LED + Laser light effect unit
- Mounting bracket
- IR remote control
- IEC mains lead(s)
- Laser switch key

Rear panel



- 1 LED display
- 2 Control panel
- 3 Laser safety switch
- 4 IEC mains inlet & fuse holder
- 5 Microphone
- 6 DMX input
- 7 DMX output

Internal Settings

Using the four control panel buttons (2), the SURGE can be set to various modes. Press the MENU button to display the different functions (see table below). Use the UP/DOWN arrow buttons to make your selection and press the ENTER button to [enter] a value or confirm the selection. Note: for Laser effects to be enabled, the safety key switch (3) must be set to the ON position.

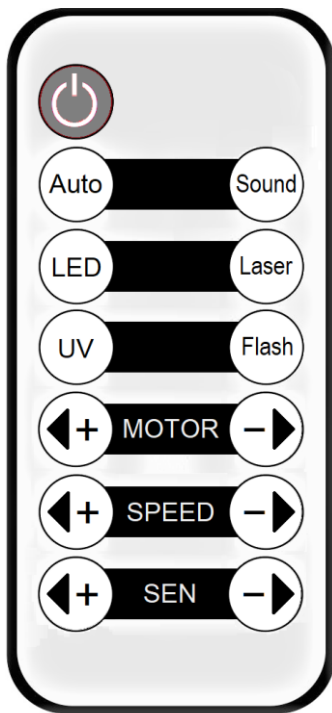
Menu	Value	Function
LA**	LAoF	Laser off
	LAAu	Laser auto mode
	LA r	Red laser on
	LA g	Green laser on
	LA r-g	Red + green laser on
	LA01 - LA20	Laser auto colour change speed slow to fast
	[enter] SP 1 - SP 9	Laser strobe speed slow to fast
LE**	LE 1	Derby red LED on
	LE 2	Derby green LED on
	LE 3	Derby blue LED on
	LE 4	Derby single colour jump
	LE 5	Derby mixed colour jump
	LE 6	Derby strobe effect
	LE 7	Derby auto mode (LE 4 - LE 5 - LE 6 sequence)
SD**	[enter] SD 1 - SD 9	Speed adjustment for derby colour change
SP**	[enter] SP 1 - SP 9	Speed adjustment for derby rotation
FL**	FLoF	Strobe LEDs off
	FL 1 - FL 9	LED strobe speed slow to fast
PU**	PUoF	UV LEDs off
	PUon	UV LEDs on (also applies to LA, LE and FL modes)
RU**	RU 1	Auto mode 1 (fast)
□	RU 2	Auto mode 2 (slow)
S1**	S101 - S120	Sound mode 1 (no sound = slow) beat count 1 to 20
	[enter] uoL 1 - uoL 9	Microphone sensitivity 1 - 9
S2**	S201 - S221	Sound mode 2 (no sound = stop) beat count 1 to 20
	[enter] uoL 1 - uoL 9	Microphone sensitivity 1 - 9
A***	ADD 1 - AS 12	DMX address 001 - 512 (slave mode = ADD 1)

Standalone operation

The SURGE can be operated without external control by selecting one of the Internal show modes from the control panel menu. These are Shown in the Internal Settings section on the previous page.

Internal settings can also be selected via the included IR remote control as detailed below.

As supplied, the remote handset has a clear plastic tab inserted which should be removed to activate the CR2025 button cell. Point the handset toward the front of the SURGE unit at a range of no more than 5m for remote control.



	Power on/standby
Auto	Auto mode
Sound	Sound-activated mode
LED	LED derby effect on/off
Laser	Laser effect on/off
UV	UV LEDs on/off
Flash	Strobe effect on/off
MOTOR +/-	Select motor rotation
SPEED +/-	Adjust effect speed
SEN +/-	Adjust microphone sensitivity

Master/slave operation

A SURGE fixture operating in one of the standalone modes may be connected by DMX lead (6, 7) to control further SURGE units by setting subsequent units to DMX address *ADD 1*

In this mode, the slave SURGE units will mimic the master SURGE working in standalone mode.

DMX operation

The SURGE functions can be controlled by DMX signal by connecting DMX leads from the controller to the DMX input (6) and linking onto further units from the DMX output (7) using suitable XLR leads.

In order to access the full DMX functions, the DMX start address will need to be set on the control panel.

When the display shows "*d00 1*", this means that the SURGE is operated starting from DMX address 1. When the display shows "*d203*", this means that the SURGE is operated starting from DMX address 203. The start address can be anywhere between 001 and 512.

There are 9 DMX channels – which are detailed on the following pages.

DMX mode (9 channels)

Channel	Value	Function
1	000-009	UV LEDs off
	010-255	UV LEDs on
2	000-009	White LEDs off
	010-255	White LEDs on
3	000-009	Derby effect off
	010-044	Derby effect red
	045-079	Derby effect green
	080-114	Derby effect blue
	115-149	Derby effect red + green
	150-184	Derby effect green + blue
	185-219	Derby effect red + blue
220-255	Derby effect Red + green + blue	
4	000-009	Laser off
	010-099	Laser on red
	100-199	Laser on green
	200-255	Laser on red + green
5	000-009	LED strobe off
	010-255	LED strobe speed fast to slow
6	000-016	Enable UV + White + Derby + Laser
	017-033	Enable UV LEDs only
	034-050	Enable White LEDs only
	051-067	Enable Derby only
	068-084	Enable Laser only
	085-101	Enable UV + White LEDs
	102-118	Enable Derby + Laser
	119-135	Enable White LEDs + Laser
	136-152	Enable UV LEDs + Laser
	153-169	Enable UV LEDs + Derby
	170-186	Enable White LEDs + Laser
	187-203	Enable UV + White LEDs + Derby
	204-220	Enable UV + White LEDs + Laser
221-237	Enable UV LEDs + Derby + Laser	
238-255	Enable White LEDs + Derby + Laser	
7	000-009	Derby rotation off
	010-255	Derby rotation fast to slow
8	000-009	Laser rotation off
	010-127	Laser forward rotation fast to slow
	128-255	Laser reverse rotation slow to fast
9	000-050	DMX mode
	051-150	Auto program $A_U 1$
	151-200	Auto program $A_U 2$
	201-250	Sound program $S 1^{**}$
	251-255	Sound program $S 2^{**}$

Specifications

Power supply	100-240Vac, 50/60Hz (IEC)
Power consumption max.	60W
Fuse	T2A/250V
Operating temperature	45°C max
LED power	8 x 3W Derby, 2 x 3W strobe, 8 x 3W UV
LED colour	2 Red, 2 Green, 2 Blue, 2 Yellow, 2 White, 8 UV
Laser power	80mW Red (650nm), 30mW Green (532nm)
DMX channels	2ch or 10ch
DMX connection	3-pin XLR in & out
Laser class	3B
Internal programs	Master-Slave, Auto, Sound-activated
Dimensions	255 x 230 x 195mm
Weight	2.5kg



Disposal: The "Crossed Wheelie Bin" symbol on the product means that the product is classed as Electrical or Electronic equipment and should not be disposed with other household or commercial waste at the end of its useful life. The goods must be disposed of according to your local council guidelines.

*Errors and omissions excepted.
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