



LANTA[™]
PROFESSIONAL LIGHTING

Owner Handbook



Quasar Emerald[™]
50mW Green Laser

Lanta Quasar Emerald™

BEFORE YOU BEGIN

It is important that you carefully examine the packaging to ensure the product has not been damaged during shipping. If you are satisfied the packaging appears undamaged, carefully unpack the product. Please keep all of the packing materials in case you need to transport the device, pass it on to a new owner in the future or return it for some reason. Please examine the product and accessories to ensure they have arrived with you in good condition and show no sign of damage. If you suspect the product may be damaged, **DO NOT USE IT**. Please notify the sender immediately for advice – not the manufacturer.

Essential Safety Notes

Please read the following notes carefully because they include important safety information about the installation, operation and maintenance of this product.

General

- Read all instructions in this User Manual and on the product carefully **BEFORE** operating this device.
- Keep this User Manual for future reference and pass it on to any other user or future owner.
- This product is for indoor use only. Under no circumstances must it be used outdoors.
- To prevent risk of fire or shock, do not expose this product to rain or moisture.
- Make sure there are no flammable materials close to the unit during operation.
- Clean the product with a clean and dry, non-abrasive cloth. Do not use solvents or liquids to clean the product.

Mains Warnings

- Always make sure that the mains voltage you intend to use is within the operating range of the product.
- Always unplug this product from the mains supply before moving, cleaning etc.
- Make sure you replace the fuse with another of the same type and rating.
- This product will be irrevocably damaged and the warranty invalidated if connected to a power pack or other dimmer.
- Make sure the mains cable is not crushed or damaged.
- Never disconnect the mains lead by pulling or tugging on the cable.
- This appliance must be earthed. Do not remove the earth connection in the plug or any other location - it is essential for user safety.

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- Unplug the product from the mains during lightning storms or periods of mains fluctuations. If the product is going to be unused for long periods, unplug from the mains.
- There are no user serviceable parts inside the unit. Do not open any covers or attempt to modify or repair the unit. This will invalidate your warranty and may lead to damage or malfunction to the product and may create a hazardous situation and endanger life.

Physical Warnings

- Always secure the product to a fastening device using a safety chain.
- If the product appears to be malfunctioning or operating in an unexpected manner, stop using the unit immediately and contact your supplier.
- Never lift, move or carry the product by any other means other than the case as a whole or handle if provided.

Laser Warnings

- Lasers are hazardous devices. Permanent eye injury and blindness is possible if lasers are used incorrectly.
- Avoid direct eye contact with laser light.
- Never intentionally expose your eyes or others to direct laser light.
- This laser product can potentially cause instant eye injury or blindness if laser light directly strikes the eyes.
- It is illegal and dangerous to shine this laser into audience areas, where the audience or other personnel could get direct laser beams or bright reflections into their eyes.
- It is illegal to shine any laser at aircraft.
- Never leave this device running unattended.

Non Interlocked Housing Warning

- This unit contains hazardous voltages, moving parts and high power laser emitters.
- Do not open the laser housing to avoid potential exposure to unsafe levels of laser radiation.
- The laser power levels, accessible if the unit is opened, can cause instant blindness, skin burns, and fires.

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Laser Safety Notes

YOU MUST READ THIS LASER SAFETY INFORMATION

Laser light is many thousands of times more concentrated than light from any other kind of light source and as so it poses a real danger to the sight. This concentration of light can cause instant eye injuries, primarily by burning the light sensitive portion at the back of the eye called the retina. Even if you cannot feel "heat" from a laser beam, it can still potentially injure or blind you or your audience. Even very small amounts of laser light are potentially hazardous even at long distances.

Laser eye injuries can happen quicker than you can blink.

- Entertainment products split the laser beam into hundreds of smaller laser beams that are radiated out at high speed. There is a misconception that an individual laser beam is safe for eye exposure. This is not the case. This product produces high levels of laser power - classified as Class 3B - before it splits into multiple beams - defined as Class 3R levels. Many of the individual beams are potentially hazardous to the eyes and should never be directed into an audience at any time.
- Do not assume that because the laser light is moving, it is safe. It isn't, and because these beams are being moved by a mechanical device, it is possible for that device to stop moving and then direct the laser beam constantly at an individual. Since eye injuries can occur instantly, it is critical to prevent the possibility of any direct eye exposure.
- It is illegal to aim a Class 3R laser into an area where people could be exposed, even below people's eye level.
- Always install a laser effect to ensure that the entire laser light radiation is at least 3 meters above the floor on which people can stand. It is very important to test the laser before any public use.
- Do not use if any defect is detected such as if the product emits only one or two laser beams rather than the expected quantities as this could indicate damage to the product and could allow emission of higher laser levels above Class 3R.
- Do not point lasers at any reflective surfaces such as windows, mirrors and metal truss or other reflective fixtures as even laser reflections can be hazardous.
- The operation of a class 3R laser show is only allowed if the show is controlled by a skilled and well-trained operator, familiar with the data included in this manual.
- The law is updated from time to time and it is the users sole responsibility to understand the legal obligations and responsibilities in force at the time and location of use.

We recommend visiting the Government Health & Safety website <http://www.hse.gov.uk> or search for **"Controlling the radiation safety of display laser installations"** for further information.

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Product Quality & Compliance

Products from Lanta Lighting meet all required safety standards in force at the time of manufacture and are fully compliant with them.

Manufacturer Warranty

- This Manufacturer Warranty is valid in the UK only.
- Lanta Lighting warrants that this product is free from workmanship defects and material failure during normal use and operation for a period of 12 months from first use or from original date of sale (whichever is the earliest) providing all of the terms indicated in the warranty section have been fully complied with.
- Expressly excluded is our liability for any directly connected or indirectly connected item or items or any consequential loss associated with the failure of the product howsoever caused.
- If the product has been opened, modified, tampered with, incorrectly connected, used inappropriately or in conflict with the instructions herein, or the product model or serial number has been damaged, removed, tampered with, obliterated or made partly unreadable by any person or persons, the Manufacturer Warranty is irrevocably null and void.
- No extension, adaption, alteration or modification to the terms of this Manufacturer Warranty will be permitted, unless expressly authorised in writing (excluding email and fax) by a Director of Lanta Lighting. Warranty is transferrable during the Warranty period.

For Further Information about Lanta Lighting

Our website can be found at www.lantalighting.com and is available for the benefit of customers worldwide. Please consult for information, advice and support on this and other high quality products from Lanta.

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About Lanta Lighting™

Based in the UK, Lanta are committed to providing high quality products at cost-effective prices to the professional lighting market. Since the first product was launched in 2006, Lanta has established a reputation for reliability, common sense design and customer support that has become the envy of others. All Lanta products are specifically designed for UK operation and are optimized for 240V AC 50Hz UK mains power.

The Lanta Lighting range includes:-

Professional Lighting

Focusing on the use of LED technology, Lanta offer distinctive lighting effects for install and mobile applications. From washes to floods, spots to projectors, LED technology now outperforms traditional lights while at the same time requiring significantly lower power and generating far less unwanted heat.

Performance Lasers

Recent advances have reduced the costs of Lasers, made them more portable and brought improved performance and reliability. With step and animation lasers in multi and single colour formats for mobile DJs and static installs, Lanta promise Lasers that won't burn a hole in your pocket.

Atmospheric Effects

When you need special atmospheric effects, Lanta have everything from bubble machines to snow machines, hazers and foggers. There's also a range of fluids and consumables specially designed to get the best from the range.

Control Gear

Lightweight and portable, Lanta Control Gear is robust enough to survive life on the road and smart enough to control DMX kit whatever the venue.

Visit us at www.lantalighting.com for more details.

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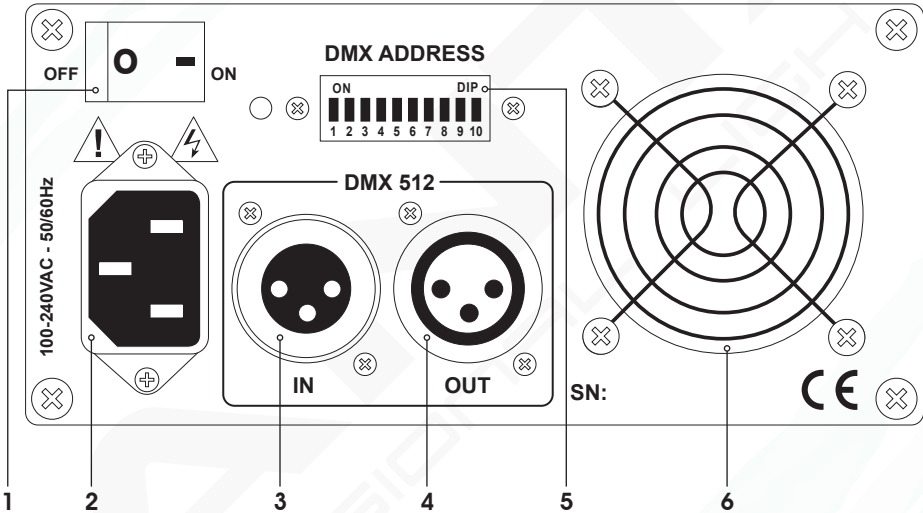
Features of the Lanta Quasar Emerald™

The Lanta Quasar Emerald™ is an Single Green 50mW laser. An ideal product for fixed installations and portable use. A range of features can be DMX controlled from any of the Lanta DMX controllers or equivalent products or sound to Light

Laser Power	Green 50mW
Scan Angle	±18°
Control	Sound/Auto/DMX (12 Channels), Master/Slave
Control Connections	3 pin Female XLR socket, 3 pin Male XLR socket
Power Requirement	240 Volt AC 50/60Hz
Dimensions	210 x 145 x 115mm
Weight	1.7kg

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Operation of the Lanta Quasar Emerald™



1. Power On/Off
2. Power Plug
3. DMX signal input
4. DMX signal output
5. Binary address
6. Fan

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1. AUTO Mode

To use the Auto mode – a selection of exciting and vibrant green colour effects, push Dipswitch 1 & 10 into the up position

2. DMX Mode

It is possible to operate the Lanta Quasar Emerald™ from a remote location by using either a DMX controller or a PC or laptop with a DMX interface. Lanta products use a 3 pin XLR style connector and usually have an input and output DMX connector. This allows multiple lighting products to be “daisy-chained” together to build a display controlled by just one cable back to the DMX controller.

Choosing DMX Control Mode

Ensure that Dip Switch 10 is set to the “down” position to activate DMX Control Mode.

Setting the DMX Addresses

Dip Switches 1-9 on the Rear Panel set the DMX Address of the unit. The unit uses binary format, allowing values from 1 to 511 to be set. Dip Switch 1 represents “1”; Dip Switch 2 represents “2”; Dip Switch 3 represents “4”; Dip Switch 4 represents “8”; Dip Switch 5 represents “16”; Dip Switch 6 represents “32”; Dip Switch 7 represents “64”; Dip Switch 8 represents “128” and Dip Switch 9 represents “256”.

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Channel	DMX Value	Mode
1 - Control Mode	0-63	Shut off Diode
	64-127	Sound Mode
	128-191	Auto Mode
	192-255	DMX Mode
2 - Patterns	0-39	Static Patterns
	40-255	Dynamic Patterns
3 - Strobe	0-30	No Strobe
	31-255	Strobe with 8 Level Adjustment
4 - NONE	NONE	NONE
5 - Horizontal Movement	0-64	N/A
	65-160	Manual
	161-220	One Way Movement
	221-255	Back and Forth Movement from Left to Right
6 - Vertical Movement	0-160	Manual Movement
	161-220	One Way Movement
	221-255	Back and Forth Movement Up and Down
7 - Zoom	0-2	N/A
	3-90	Manual Zooming
	91-146	Auto Zooming Out
	147-200	Auto Zooming In
8 - NONE	NONE	NONE
9 - Y Axis Rotation	0-150	Manual Rotation
	151-255	Automatic Rotation
10 - X Axis Rotation	0-150	Manual Rotation
	151-255	Automatic Rotation
11 - Z Axis Rotation	0-150	Manual Rotation
	151-255	Automatic Rotation
12 - Reset	0-200	Manual Rotation
	201-255	Reset

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3. MASTER /SLAVE Mode

This is a great way of making two or more Lanta Quasar Emerald™ units to do the same things at the same time, without the need for a DMX controller. The Lanta Quasar Emerald™ has a DMX controller of its own, built inside and when a second Lanta Quasar Emerald™ (set as SLAVE) is connected to a Lanta Quasar Emerald™ (set as MASTER) the SLAVE will follow all of the activity of the MASTER.

It is possible to run 9 units on a master/ slave function, 1 unit as the master, 8 units as the slaves. To set the first slave unit must push Dipswitch 2 & 10 into the "ON" position. To set a second unit on slave you must push Dipswitch 3 & 10 into the "ON" position. Continue this process until you reach the maximum allowance of 8 units (9 & 10 in the "ON" position).

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