

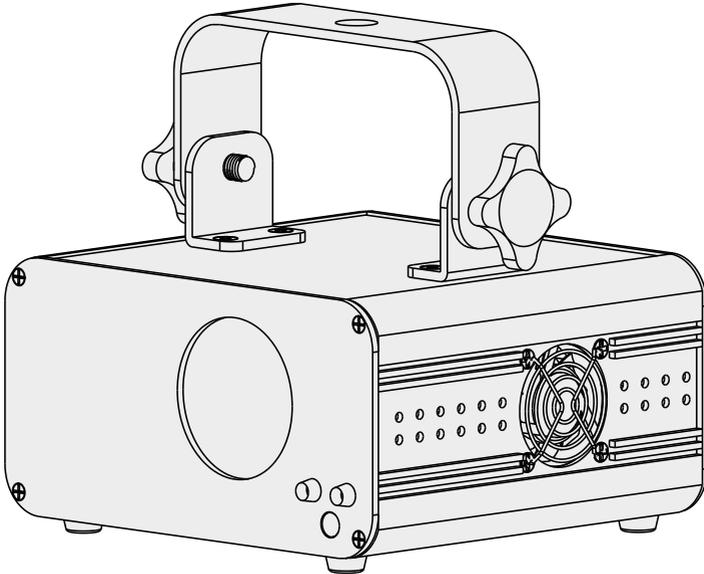


**soundSation**

# **OMEGA-300 RGB**

**Compact Graphic Laser System**

---



## **USER MANUAL**

*Please read this manual carefully and proper take care of this manual.*



Dear customer,

First of all thanks for purchasing a SOUNDSATION® product. Our mission is to satisfy all possible needs of musical instrument, professional audio and lighting users offering a wide range of products using the latest technologies.

We hope you will be satisfied with this item and, if you want to collaborate, we are looking for a feedback from you about the operation of the product and possible improvements to introduce in the next future. Go to our website [www.soundsationmusic.com](http://www.soundsationmusic.com) and send an e-mail with your opinion, this will help us to build instruments ever closer to customer's real requirements.

One last thing: read this manual before using the instrument, an incorrect operation can cause damages to you and to the unit. Take care!

The SOUNDSATION Team

## TABLE OF CONTENTS

<b>1. 1. INTRODUCTION .....</b>	<b>7</b>
<b>2. OVERVIEW.....</b>	<b>8</b>
<b>3. MAIN FEATURES .....</b>	<b>8</b>
<b>4. OVERHEAD RIGGING .....</b>	<b>8</b>
<b>5. MAINS CONNECTIONS .....</b>	<b>9</b>
<b>6. DMX CONNECTION .....</b>	<b>10</b>
<b>7. CENTERING ADJUSTMENT .....</b>	<b>11</b>
<b>8. FRONT/REAR PANELS .....</b>	<b>12</b>
<b>9. MENU OPERATING INSTRUCTION .....</b>	<b>13</b>
<b>10. REMOTE CONTROLLER.....</b>	<b>15</b>
<b>11. DMX Channel Chart .....</b>	<b>16</b>
<b>12. BUILT-IN PATTERN LIBRARY .....</b>	<b>17</b>
<b>13. SPECIFICATIONS .....</b>	<b>18</b>
<b>14. WARRANTY AND SERVICE .....</b>	<b>19</b>
<b>15. WARNING.....</b>	<b>19</b>

## IMPORTANT SAFETY SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions, which may be sufficient to constitute the risk of electric shock or death.



The symbol is used in the service documentation to indicate that specific component shall be replaced only by the component specified in that documentation for safety reasons.



Protective grounding terminal



Alternating current/voltage



Hazardous live terminal

**ON**

Denotes the apparatus is turned on

**OFF**

Denotes the apparatus is turned off

**WARNING:**

Describes precautions that should be observed to prevent the danger of injury or death to the operator.

**CAUTION:**

Describes precautions that should be observed to prevent danger of the apparatus.



Laser safety warning labels



To protect the environment, please try to recycle the packing material as much as possible



The projector 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 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 50cm from surrounding walls

## LASER SAFETY WARNINGS

According to the EN 60825-1:2007 regulation, this product belongs to Class 3B. Direct eye contact may cause injury.



- ▶ This product is for laser show only. The class 3B laser light should be operated by professional operator only.
  - ▶ This is so-called show laser, emitting radiation with a wavelength spectrum between 400 and 700nm and producing lighting effects for shows.
  - ▶ International laser safety regulations require that the vertical height from installment to ground is more than 3 meters, horizontal distance is 2.5 meters from audience.
  - ▶ Never direct the laser beam to people or animals and never leave this device running unattended.
  - ▶ The legal requirements for using laser entertainment products vary from country to country. The user is responsible for the legal requirements at the location/country of use.
-  **Warning! Avoid direct eye contact with laser beams during operation, especially when the laser beams stay still, or injury to eyes may occur.**
-  **Caution! Laser security measures are designed according to the specific terms of the relevant international laser safety standards and has the following laser safety protection means:**
- **Laser key switch:** laser is available only when the key is turned on.
  - **Laser Emergency switch:** remote connecting switch, it will cut off the laser light path emergently once the device in potential hazard.
  - **Laser indication :** laser indication on the front panel of the laser light for indicating "laser-ready".
  - **Laser safety label:** The labels of according with European standard are stucked on the device body.

## TAKING CARE OF YOUR PRODUCT

- ▶ Read these instructions
- ▶ Keep these instructions
- ▶ Heed all warning
- ▶ Follow all instructions

### WATER / MOISTURE

The apparatus should be protected from moisture and rain and can not be used near water; for example near a bathtub, a kitchen sink, a swimming pool, etc.

## **CONDENSATION**

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. Condense sometimes prevents the unit from working at full performance or may even cause damages.

## **HEAT**

The apparatus should be located away from heat sources such as radiators, stoves or other appliances that produce heat. Don not use it when maximum ambient temperature is higher than 40°C.

## **VENTILATION**

Do not block areas of ventilation opening. Failure to do could result in fire. Always install according to the manufacturer's instructions.

## **OBJECT AND LIQUID ENTRY**

Objects do not fall into and liquids are not spilled into the inside of the apparatus for safety.

## **POWER CORD AND PLUG**

Protect power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two poles; a grounding-type plug has two poles and a third grounding terminal. The third prong is provided for your safety. If the provided plug does not fit into your outlet, refer to an electrician for replacement. Unplug the unit when it is not used for a longer time.

## **POWER SUPPLY**

In case of external power supply, the apparatus should be connected to the power supply only of the type as marked on the apparatus or described in the manual. Failure to do could result in damage to the product and possibly the user. Unplug this apparatus during lightning storms or when unused for long periods of time.

## **ELECTRICAL CONNECTION**

Always disconnect from the power source before servicing or replacing fuse and be sure to replace with same fuse size and type. Cut off power before moving, repairing and cleaning the unit. Improper electrical wiring may invalidate the product warranty.

To avoid electric shock, all fixtures must be connected to circuits with a suitable ground. Do not power on and power off the fixture in a short time.

## **DMX CONNECTION**

When use DMX controller, please make sure that there is no interference sources (e.g. intercom, high frequency radio waves and radiation source).

## **CLEANING**

Clean only with a dry cloth. Do not use any solvents such as benzene or alcohol.

## **SERVICING**

Do not implement any servicing other than those means described in the manual. Refer all servicing to qualified service personnel only. Only use accessories/attachments or parts recommended by the manufacturer.

# **I. INTRODUCTION**

Thank you for purchasing our OMEGA-300 RGB graphic laser. Enjoy your new equipment and make sure to read this manual carefully before operation!

This user manual is made to provide both an overview of controls, as well as information on how to use them. In order to help you to understand the connections between the various controls, we have gathered in groups according to their functions.

## **I.1. UNPACKING**

Your OMEGA-300 RGB was carefully packed to ensure safe transport. Despite this, we recommend you to carefully examine the package and its contents for any signs of physical damage, which can occur during transport. It is composed by following parts:

- ▶ Laser light
- ▶ KEYS (for Key switch)
- ▶ Power Cord
- ▶ Interlock Connector
- ▶ User manual

 **ATTENTION: Packaging bag is not a toy! Keep out of reach of children!!! Keep in a safe place the original packaging material for future use.**

## **I.2. ACCESSORIES**

SOUNDSATION can supply a wide range of quality accessories that you can use with your OMEGA-300 RGB laser, like Cables, Splitters, DMX controllers, and a wide range of fixtures.

All products in our catalogue has been long tested with this device, so we recommend you to use Genuine SOUNDSATION Accessories and Parts.

Ask your SOUNDSATION dealer or check out our website [www.soundsationmusic.com](http://www.soundsationmusic.com) for any accessories you could need to ensure best performance of the product.

## 2. OVERVIEW

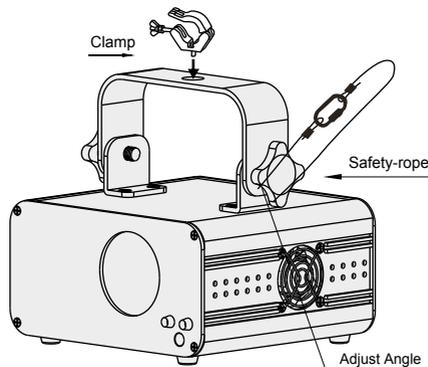
SOUNDSTATION OMEGA-300 RGB is a new Class 3B professional graphic laser projector based on state-of-the-art technology. It features high-quality LED RGB laser emitters that produce bright laser beams and smooth patterns. LED panel menu, and the handy remote control make this fixture extremely easy to program and convenient to use. It is the right choice for all those musicians, DJs and small rental companies who need a reliable and versatile instrument for graphic laser effects.

## 3. MAIN FEATURES

- ▶ 300mW RGB graphic laser (150mW R, 50mW G, 100mW B) for complete color palette effects
- ▶ 32 Patterns
- ▶ 7 Auto Programs
- ▶ 7 Sound Programs with internal Microphone and sensitivity adjustment
- ▶ Operation Modes: Auto, Sound, DMX, Master/Slave
- ▶ DMX: 10CH mode
- ▶ IR Remote Controller for quick control
- ▶ Key switch and safety eye for maximum safety of use and installation

## 4. OVERHEAD RIGGING

**WARNING:** 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.

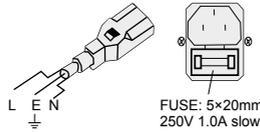


- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.

- Locate the fixture in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- The device should be installed out of reach of people and outside 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 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.

## 5. MAINS CONNECTIONS

Connect the device to the mains with the supplied power cable. Please 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. To prevent the risk of fire and damaging the unit, please use only of the recommended fuse type as described above. Before replacing the fuse, make sure the unit turned off and disconnected from the AC outlet.

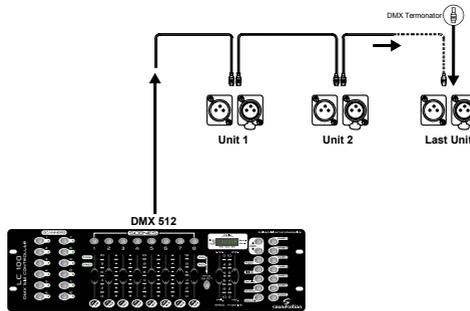
Wire correspondence is as follow:

Cable (EU)	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⊕

 **The earth must to be connected! Pay attention to the safety! Before taking into operation for the first time, the installation has to be approved by an expert.**

## 6. DMX CONNECTION

DMX fixtures are designed to receive data through a serial Daisy Chain. A Daisy Chain connection is where the DATA OUT of one fixture connects to the DATA IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a controller communicates to each fixture. Use an order that provides for the easiest and most direct cabling.



Connect fixtures using shielded 2-conductor twisted pair cable with 3-pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is Data Negative (S-), and pin 3 is Data positive (S+).

### DMX use of 3-Pin XLR Connectors



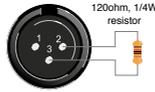
**CAUTION:** Wires must not come into contact with each other; otherwise the fixtures will not work at all, or will not work properly.

### 6.1. DMX Terminator

DMX is a resilient communication protocol, however errors still occasionally occur. In order to prevent electrical noise from disturbing and corrupting the DMX control signals, a good habit is to connect DMX output of last fixture in the chain to a DMX terminator, especially over long signal cable runs.

The DMX terminator is simply an XLR connector with a 120Ω (ohm), 1/4 Watt resistor connected across Signal (-) and Signal (+), respectively, pins 2 and 3, which is then plugged into the output socket on last projector in the chain. The connections are illustrated below.

DMX Terminator

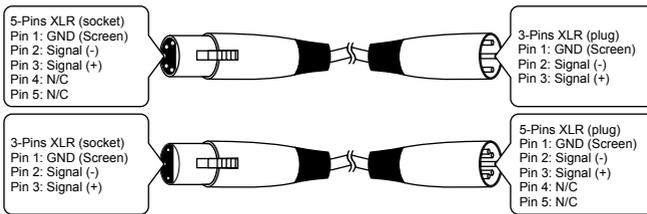


 **Complimentary signal cable can transmits signals to 20 unit fixtures at most. Signal amplifier is a must to connect more fixtures.**

**6.2.3-Pin vs 5-Pin DMX cables**

DMX connection protocols used by controllers and fixtures manufacturers are not standardized around the world. However, two are the most common standards: 5-Pin XLR and 3-Pin XLR system. If you wish to connect SCENESPLIT 8 RACK to a 5-Pin XLR input fixture, you need to use an adapter-cable or make it by yourself.

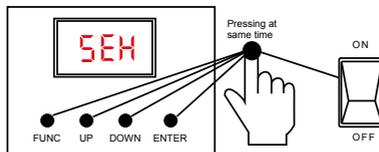
Following the wiring correspondence between 3-Pin and 5-Pin plug and socket standards



**7. CENTERING ADJUSTMENT**

Laser image may deviate from the center of lens due to transportation, DMX mistakes, etc. You can use control panel to adjust motor and ensure laser beam to be perfectly centered. Easy operation and practical function.

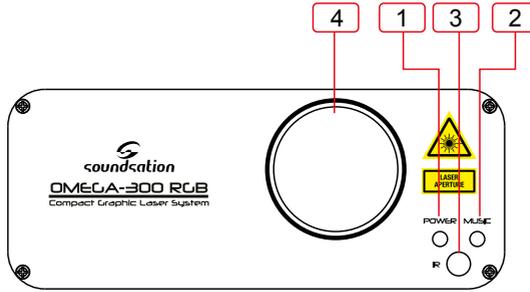
- To enter the unit in digital centering, press the 4 buttons at the same time, then turn on the device.



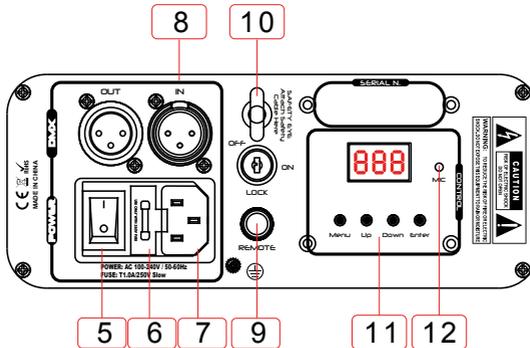
- Press **FUNC** button to toggle between **SHE** (to set X axis) and **SHY** (to set Y axis).
- Press **UP** and **DOWN** to set deviation size.

- Observe the place of image and light lens, then press **ENTER** to confirm and save.

## 8. FRONT/REAR PANELS



1. **POWER:** Main power indicating LED. Red is ON.
2. **MUSIC:** Synchronize to detected music signal.
3. **IR:** Infrared Remote Receiver.
4. **Laser output:** Laser output aperture.



5. **Switch:** Switches on and off power.
6. **Fuse Holder:** Contains the fuse inside.
7. **Mains input** with socket and integrated fuse holder.
8. **DMX output and DMX input:** 3PIN Female XLR and DMX 3PIN Male XLR connectors.
9. **Key switch:** Make sure the professional person use.
10. **Safety eye:** Connecting wire rope to prevent illegal operation and fall.

**11. LED control interface:** Various mode setting operation for machine

**12. Mic:** Turn the knob to adjust the sound activated sensitivity.

## 9. MENU OPERATING INSTRUCTION

Once after every power on laser, VERSION and MANUFACTURE INFORMATION will be shown in LED display of rear panel. Once laser is powered on, the display monitors current operating standalone mode or DMX address of DMX mode. With this LED display, it is very easy to set and change operating mode of laser. After every resetting and saving, the new mode information will be shown on the display monitor at next power on.

**FUNC**

Mode Option, to choose the operating mode of laser.

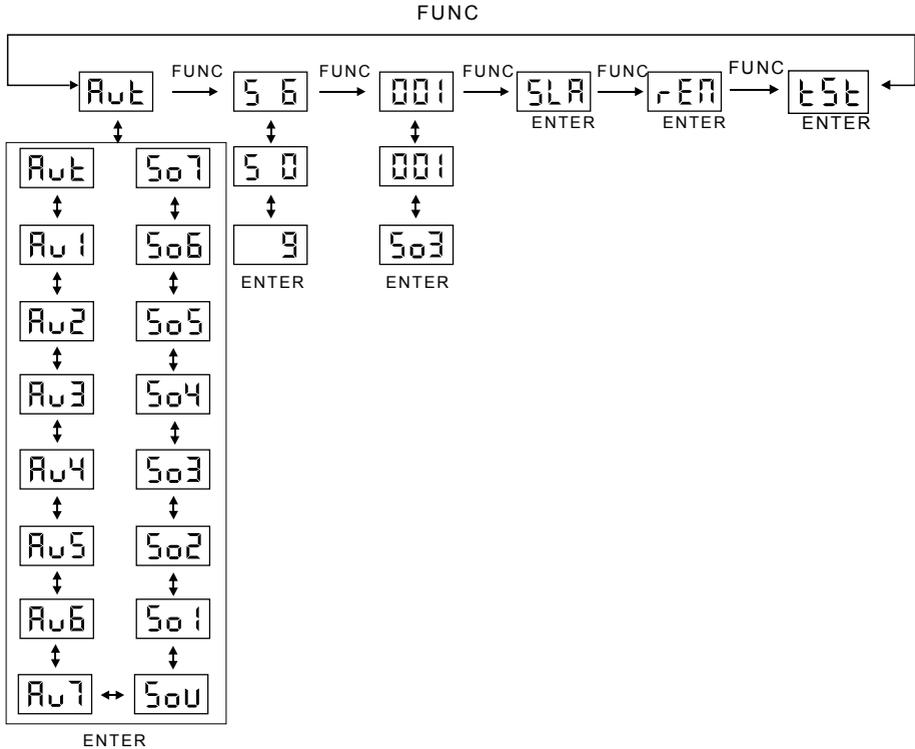
**ENTER**

Confirmation, to confirm the laser to show the present mode at the next operation.

**UP**

**DOWN**

UP/DOWN, to change operating mode, parameter or DMX address.



LED Display	Function
Aut	Auto
Au1	Aut 1
Au2	Aut 2
Au3	Aut 3
Au4	Aut4
Au5	Aut5
Au6	Aut6
Au7	Aut7

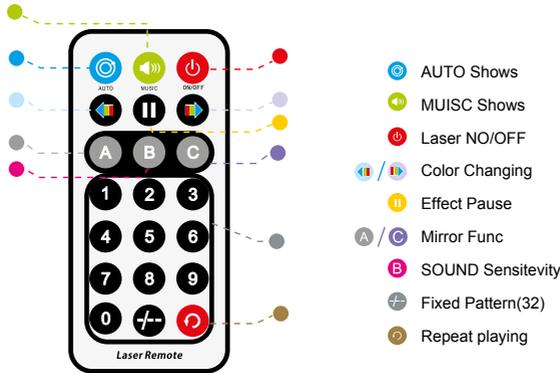
LED Display	Function
Sou	Sound
So1	Sound 1
So2	Sound 2
So3	Sound 3
So4	Sound4
So5	Sound5
So6	Sound6
So7	Sound7

**Attention : In preprogrammed standalone SOUND mode, the laser beam will be blank-out in 3 seconds without AUDIO/MIC activated signal.**

## 9.1. Initial Setting

FUNC	UP DOWN	ENTER
Built-in Programs	AUT - 5 shows Auto A3D 3D shows Auto Aub - light beam show Auto AUL - Lumia show Auto AUN - AUTO show double bursting grating AUO - Universe nebula show Auto SXX - Above show with sound control	Press UP/DOWN to choose different effects, then press ENTER to confirm.
Sound Sensitivity	LED displayer will play S0-S9. S0 means no sound; from S1 to S9, the sensitivity is stronger and stronger.	Press UP/DOWN to choose the sensitivity and press ENTER to confirm.
DMX Mode	DMX ADD 001 To DMX ADD 503.	
Slave Mode	Confirm laser in SLAVE MODE. Connect MASTER laser with several SLAVE lasers with DMX cable, SLAVE lasers are doing exactly the same laser show as MASTER one.  <b>Note: The slaves can't receive the remote signal.</b>	If the words strobe is always on the LED displayer, that means DMX or slave signal are not connected well; please check cables and controller device.
REM Mode	In any standalone mode excepted SLA, pressing ON/OFF for 2 seconds to activate remote function, and will be return the original mode pressing ON/OFF for 2S again.	Choose UP/DOWN; press ENTER to confirm.

**10. REMOTE CONTROLLER**



Button	Function	Description
	ON/OFF	All modes other than the "slave" mode, continue to press "ON/OFF" in the remote control button for 2 seconds, you can enter or exit the remote mode.
	AUTO	AUTO Shows
	MUSIC	Music control mode, in this mode, if it receives sound signal, the blue LED will twinkling
	Sound Sensitivity	In the sound mode, press the "B" key in the remote control, then the panel below "1-9" corresponds to the voice sensitivity setting, "9" is the most sensitive
	Color change	For multi-color products, each time you press the key, will change color.
	Picture change	Show pictures or change pictures
	Fixed pictures	Choose your favor pictures from 1 to 32
	Repeat playing	Repeat switching the current pattern and the last pattern

 **Note: In remote mode, all controls and settings are automatically saved until reboot. After the reboot, the first time into the remote control mode, the system will run AUTO state.**

## II. DMX Channel Chart

Channel	Value	Function
CH1 Mode	000-014	AUT
	015-029	AUT 1
	030-044	AUT 2
	045-059	AUT 3
	060-074	AUT 4
	075-089	AUT 5
	090-104	AUT 6
	105-119	AUT 7
	120-134	SOU
	135-149	SOU 1
	150-164	SOU 2
	165-179	SOU 3
	180-194	SOU 4
	195-209	SOU 5
	210-224	SOU 6
	225-239	SOU 7
240-255	DMX Mode	
CH2 Pattern	000-255	32 Laser Patterns
CH3 Color	000-014	Laser OFF
	015-029	Original preprogrammed color
	030-044	Color effects 1
	045-059	Color effects 2
	060-074	Color effects 3
	075-089	Color effects 4
	090-104	Color effects 5
	105-119	Color effects 6
	120-134	Color effects 7
	135-149	Color effects 1 To Color effects 2
	150-174	Color effects 2 To Color effects 3
	175-199	Color effects 1 To Color effects 3
	200-224	Color effects 1 To Color effects 2 To Color effects 3
225-255	Color Rolling	
CH4 Color Roll Speed	000-004	NO rolling
	005-255	Fast to slow
CH5 Zooming	0-127	100%-5% fixed pattern zoomed
	128-169	Zooming IN
	170-209	Zooming OUT
	210-255	Alternately Zooming



CH6 Y axis rolling	000-127	0 -359 degree fixed Y axis rolled	
	128-191	Clockwise rolling	
	192-255	Anticlockwise rolling	
CH7 X axis rolling	000-127	0 -359 degree fixed X axis rolled	
	128-191	Clockwise rolling	
	192-255	Anticlockwise rolling	
CH8 Z axis rolling	000-127	0 -359 degree fixed Z axis rolled	
	128-191	Clockwise rolling	
	192-255	Anticlockwise rolling	
CH9 X axis mobile	000-127	128 different fixed position on X axis	
	128-191	Clockwise moving	
	192-255	Anticlockwise moving	
CH10 Y axis mobile	000-127	128 different fixed position on Y axis	
	128-191	Clockwise moving	
	192-255	Anticlockwise moving	

## 12. BUILT-IN PATTERN LIBRARY

DMX	Pattern	DMX	Pattern	DMX	Pattern	DMX	Pattern
000-007		064-071		128-135		128-135	
008-015		072-079		138-143		198-205	
016-023		080-087		144-151		206-213	
024-031		088-087		152-159		214-221	
032-039		096-103		160-167		222-229	
040-047		104-111		168-175		230-237	
048-055		112-119		176-181		238-245	
056-063		120-127		182-189		246-255	

### 13. SPECIFICATIONS

General	Professional RGB Graphic Laser
Laser Class	Class-3B
Red Laser	LD 650nm, 150mw
Green Laser	DPSS 532nm, 50mw
Blue Laser	LD 450nm, 100mw
Laser level	Class 3B Laser
AUTO	Four show AUTO
SOUND	Four show SOUND
DMX Channel Range	1-10
Mains	100-240V - 50/60Hz
Fuse	250V 1 A Slow Blow (20mm Glass)
Consumption	20W
Fixture Size (WxHxD)	200 x 80 x 145.5 mm
Fixture Weight	1.5 kg
Carton Size (WxHxD)	247 x 152 x 213 mm
Carton Weight	1.6 kg

## 14. WARRANTY AND SERVICE

All SOUNDSATION products feature a limited two-year warranty. This two-year warranty is specific to the date of purchase as shown on your purchase receipt.

The following cases/components are not covered from the above warranty:

- Any accessories supplied with the product
- Improper use
- Fault due to wear and tear
- Any modification of the product effected by the user or a third party

SOUNDSATION shall satisfy the warranty obligations by remedying any material or manufacturing faults free of charge at SOUNDSATION's discretion either by repair or by exchanging individual parts or the entire appliance. Any defective parts removed from a product during the course of a warranty claim shall become the property of SOUNDSATION.

While under warranty period, defective products may be returned to your local SOUNDSATION dealer together with original proof of purchase. To avoid any damages in transit, please use the original packaging if available. Alternatively you can send the product to SOUNDSATION SERVICE CENTER – Via Enzo Ferrari , 10 – 62017 Porto Recanati - Italy . In order to send a product to service center you need an RMA number. Shipping charges have to be covered by the owner of the product.

For further information please visit [www.soundsationmusic.com](http://www.soundsationmusic.com)

## 15. WARNING

PLEASE READ CAREFULLY – EU and EEA (Norway, Iceland and Liechtenstein) only



This symbol indicates that this product is not to be disposed of with your household waste, according to the WEEE Directive (2202/96/EC) and your national law.

This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (WEEE).

Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources.

For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, approved WEEE scheme or your household waste disposal service.



---

This product is imported in EU by  
Questo prodotto viene importato nella UE da  
FRENEXPORT SPA – Via Enzo Ferrari, 10 - 62017 Porto Recanati - Italy

[WWW.SOUNDSATIONMUSIC.COM](http://WWW.SOUNDSATIONMUSIC.COM)

Soundsation® is a registered trademark of FRENEXPORT SPA - Italy  
Soundsation® è un marchio di fabbrica registrato della FRENEXPORT SPA - Italy



[WWW.SOUNDSATIONMUSIC.COM](http://WWW.SOUNDSATIONMUSIC.COM)