



# Galactic RGB850

ORDERCODE 51329



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**SHOWELECTRONICS FOR PROFESSIONALS**

## **Congratulations!**

You have bought a great, innovative product from Showtec.  
The Showtec Galactic RGB850 brings excitement to any venue.

You can rely on Showtec, for more excellent lighting products.  
We design and manufacture professional light equipment for the entertainment industry.  
New products are being launched regularly. We work hard to keep you, our customer, satisfied.  
For more information: [iwant@showtec.info](mailto:iwant@showtec.info)

You can get some of the best quality, best priced products on the market from Showtec.  
So next time, turn to Showtec for more great lighting equipment.  
Always get the best -- with Showtec !

Thank you!



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## Warning

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY  
BEFORE YOUR INITIAL START-UP!**

## Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- Galactic RGB850 with IEC powercable 1,75m
- Rugged Case with keys
- Remote plug and 2 keys
- 20m ILDA DB25 cable
- User manual

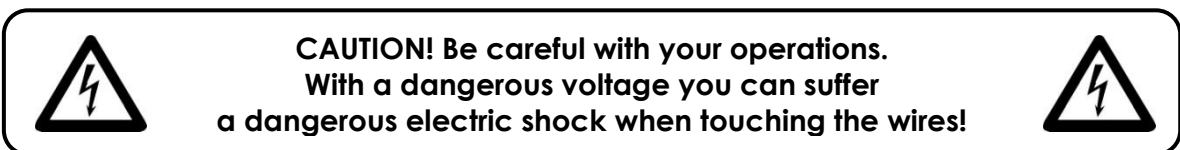


**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY  
BEFORE YOUR INITIAL START-UP!**

## Safety Instructions

Every person involved with the installation, operation and maintenance of this device have to:

- be qualified
- follow the instructions of this manual



Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty. This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

### **IMPORTANT:**

*The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.*

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack.
- Do not open the device and do not modify the device.
- Never aim the laser beam at people or animals!
- Never use the device during thunderstorms, unplug the device immediately.
- Never look directly into the light source.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use device indoor, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Avoid flames and do not put close to flammable liquids or gases.
- Always check the regulations when using a class 4 laser product.
- Always check and position the laser before anybody enters the room, when the laser is facing an area with people.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If the lens is obviously damaged, it has to be replaced. So that its functions are not impaired, due to cracks or deep scratches.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. Light effect must be installed out of the reach of children. Never leave the unit running unattended.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the Galactic RGB850. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- The laser will only work between 15-35°C.
- After 3 hours working, you must shut off the laser and let the laser diode cool off for 30 minutes, otherwise the laser could be damaged and the warranty becomes void.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

# Laser safety for a Class 4 Laser Product



CAUTION: AVOID EXPOSURE TO BEAM: Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser radiation.

## Compliance Statement

Your Galactic Laser has been designed to comply with FDA and IEC Standards for its classification. The Galactic is a Class 4 laser product.

## Laser Safety and Compliance Information

The Galactic is manufactured to comply with the IEC 60825-1 and in accordance with U.S. Food and Drug Administration (FDA) Standards Listed under FDA Document 21 CFR 1040 and subsequent laser notices.

## Product Classification and Manufacturing Label Identification

Laser Classification: Class 4  
Cooling: TE Cooling & Fan Cooling  
Laser medium: wavelength 638 nm / Red (Laser Diode) Medium LD AlGaInP  
wavelength 532 nm / Green (DPSS) Medium DPSS Nd:YVO4  
wavelength 450 nm / Blue (DPSS) Medium LD GeAs  
Output: 850mW (>200mW Red/ >150mW Green/ >500mW Blue)  
Beam Diameter <5mm at aperture  
Pulse Data All pulses < 4Hz (>0.25sec)  
Divergence (each beam) <2 mrad  
Divergence (total light) <40 degrees  
Scanning ILDA Standard: 20Kpps

CAUTION: *The use of corrective eye wear or optics for viewing at distances such as telescopes or binoculars within a distance of 100mm may pose an eye hazard.*



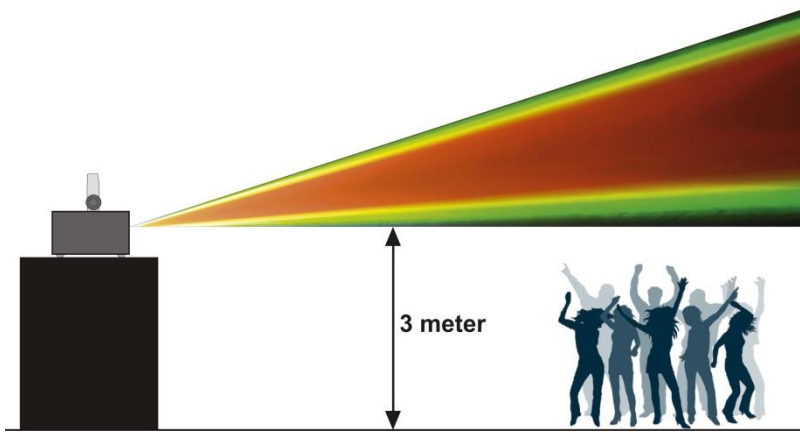
This laser product is a Class 4 laser and has an Interlocked housing.



There are no user serviceable parts inside. Tampering or removing warranty seals will void your products limited warranty.



Combo label with the Product Model Number, Serial Number, Date of Manufacturing, Laser Light Warning Label, Warranty Void Label and Interlocked Housing Label



According to FDA Regulations you should operate this product as stated on the left.

## Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light-output and the illuminated surface must be more than 0.5 meter.
- The maximum ambient temperature  $t_a = 45^{\circ}\text{C}$  must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of  $35^{\circ}\text{C}$ .
- If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash, etc.

*You endanger your own safety and the safety of others!*

## Rigging

*Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.*

*Do not attempt the installation yourself !*

*Always let the installation be carried out by an authorized dealer !*

### Procedure:


- If the Galactic is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Galactic, with the mounting-bracket, to the trussing system.
- The Galactic must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the device, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

*Improper installation can cause serious damage to people and property !*

## Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!



## Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail [aftersales@highlite.nl](mailto:aftersales@highlite.nl) and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

**Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:**

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

## Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.



# Description of the device

## Features

The Showtec Galactic RGB850 is a laser effect with high output and great effects.

- When using multiple units together, you can make a great and cost effective beam-show
  - Create your own designs and shows, with any kind of ILDA laser software
  - Equipped with a 20K scanner pair which makes faster and bigger projections possible with less flickering
  - For rental solutions you can use the SD card slot to run pre-programmed shows without any controller
  - Power Input: AC 100-240V, 50/60Hz
  - Power Consumption: 68 Watt
  - Scan Speed: 20K
  - Beam Diameter <5mm at aperture
  - Laser Class: 4
  - Laser Modulation: TTL
  - Laser Safety: EN/IEC 60825-1 Ed 2, 2007-03
  - Laser Power: 850mW (200mW 638nm Red, 150mW 532nm Green, 500mW 450nm Blue)
  - Laser Color: Red, Yellow, Green, Blue, Purple, Cyan, White
  - Only 850mW: With help of the new 200mW 638nm red laser, the visual brightness is close to that of a 1.2W traditional RGB laser with a 660nm red laser.
  - Scan Angle: +/-60°
  - 2 x Auto Show + 2 x Music Show
  - 86 Animated Graphic Show Patterns
  - Perfect White color Balance
  - Auto Detected ILDA Signal Interface
  - 3D adjustable Color Mixer
  - Beam, Wave, Text, Animation, Logo
  - Control Modes: Auto, Sound, Master/Slave, DMX, ILDA, SD-Card
  - Divergence (each beam) <2 mrad; Divergence (total light) <40 degrees
  - 3-pin DMX In and 3-pin DMX Out, Sub-D 25 Pole
  - Clear LCD display for all settings
  - Compact strong metal housing
  - You can project two built-in patterns at the same time
  - Music-controlled via built-in microphone
  - 13 DMX Channels
  - Safety Features: Key switch, Interlock, Safety eye
  - Fuse 1,6 A / 250V
  - Dimensions: 300 x 240 x 262mm (LxWxH excl. bracket); Weight: 7,74 Kg
  - Dimensions flightcase: 520 x 330 x 200mm; Weight flightcase: 6,40 Kg
- 
- Accessories Included: 2 Keys, Interlock test connector, flightcase, 20m ILDA cable, 2Gb SD card

## Overview



Fig. 1

## Backside

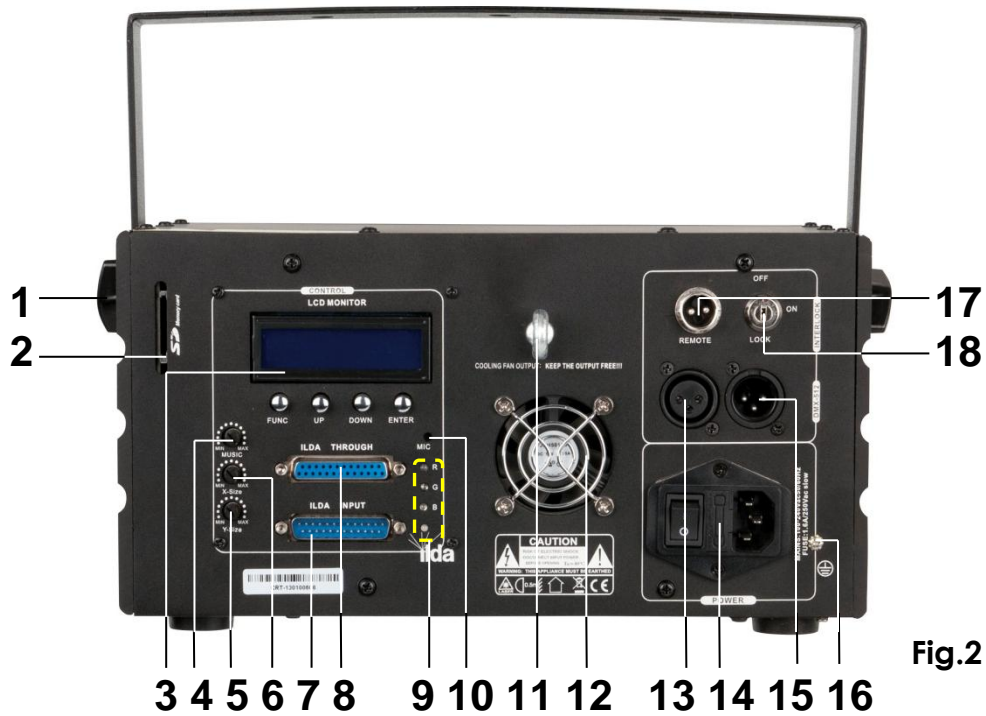


Fig.2

- |  |  |
|--|--|
| 1) Mountingbracket with adjustment screw | 10) Microphone                             |
| 2) SD Slot                               | 11) Safety Eye                             |
| 3) LCD Display + Menu Buttons            | 12) Cooling Fan                            |
| 4) Music Sensitivity                     | 13) 3-pin DMX Out                          |
| 5) X-Size                                | 14) ON/OFF, IEC Powerconnector + Fuse 1,6A |
| 6) Y-size                                | 15) 3-pin DMX In                           |
| 7) ILDA Input                            | 16) Earth connection                       |
| 8) ILDA Through                          | 17) Remote Control                         |
| 9) RGB + ILDA LED                        | 18) Lock On/Off                            |

## Installation

Remove all packing materials from the Galactic. Check that all foam and plastic padding is removed. Connect all cables.

**Always disconnect from electric mains power supply before cleaning or servicing.**

**Damages caused by non-observance are not subject to warranty.**

## Set Up and Operation

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa. Connect the device to the main power supply. The device can be music-controlled by its built-in microphone.

The Interlock plug/remote plug and safety keys are included in the box.

The interlock is the "included-in-the-box" successor for the optional remote interlock (51316)

⚠ They should be kept with the Galactic laser !!! ⚠



The following safety precautions should be followed:

- The interlock plug should be placed on the backside (17) of your Galactic laser.
- The keys should be put into the lock (18) of your Galactic laser.

### ⚠ Warning ⚠

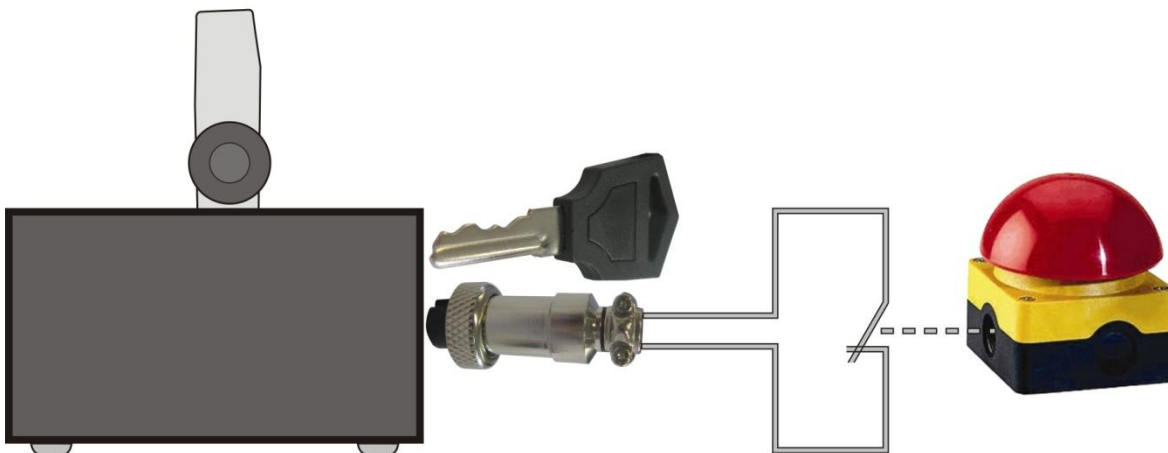
If the plug is not connected, your laser will not function.

If the key is not set to ON, your laser will not function.



### Exclusion of liability

Be aware that in some countries, there are additional regulations, regarding the use of laser devices. Therefore, we strongly advise you to check your national laws with the authorities: We don't take any responsibility for eventual discrepancies, changes or adaptations regarding lawful use of laser devices.



## Control Modes

There are 4 modes:

- Autoshow 1 Autoshow 2
- Musicshow 1 + Musicshow 2
- Master/Slave
- DMX512

### One Galactic (Autoshow 1+2)

1. Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
2. When the Galactic is not connected by a DMX-cable, it functions as a stand-alone device. Please see page 14 for more information about the Autoshow effects.

### One Galactic (Sound-controlled Musicshow 1+2)

1. Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
2. Turn on the music. If the device is set to sound, then the Galactic will react to the beat of the music. Please see page 14 for more information about the sound-control options.

### Multiple Galactics (Master/Slave control)

1. Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
2. Always use a safety cable (ordercode 70140 / 70141).
3. Use a 3-p XLR cable to connect the Galactic lasers.

The pins:



1. Earth
2. Signal -
3. Signal +

4. Link the units as shown in (Fig. 3), Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units. You can use the same functions on the master device as described on page 14 (Autoshow 1+2 or Musicshow 1+2). This means on the master device you can set your desired operation Mode and all slave devices will react the same as the master device.

### Multiple Galactics (Master/Slave control)

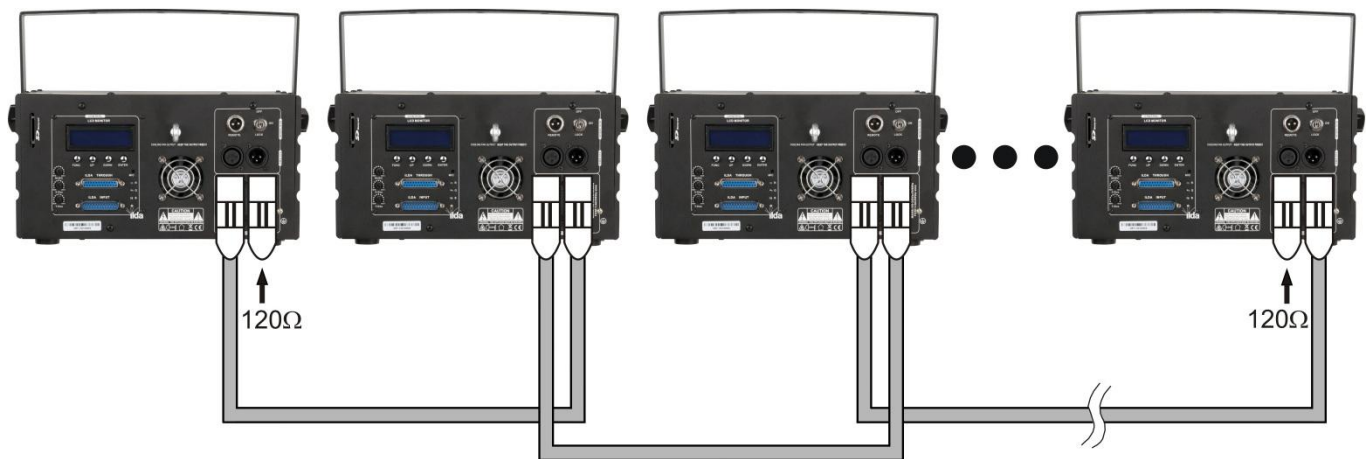
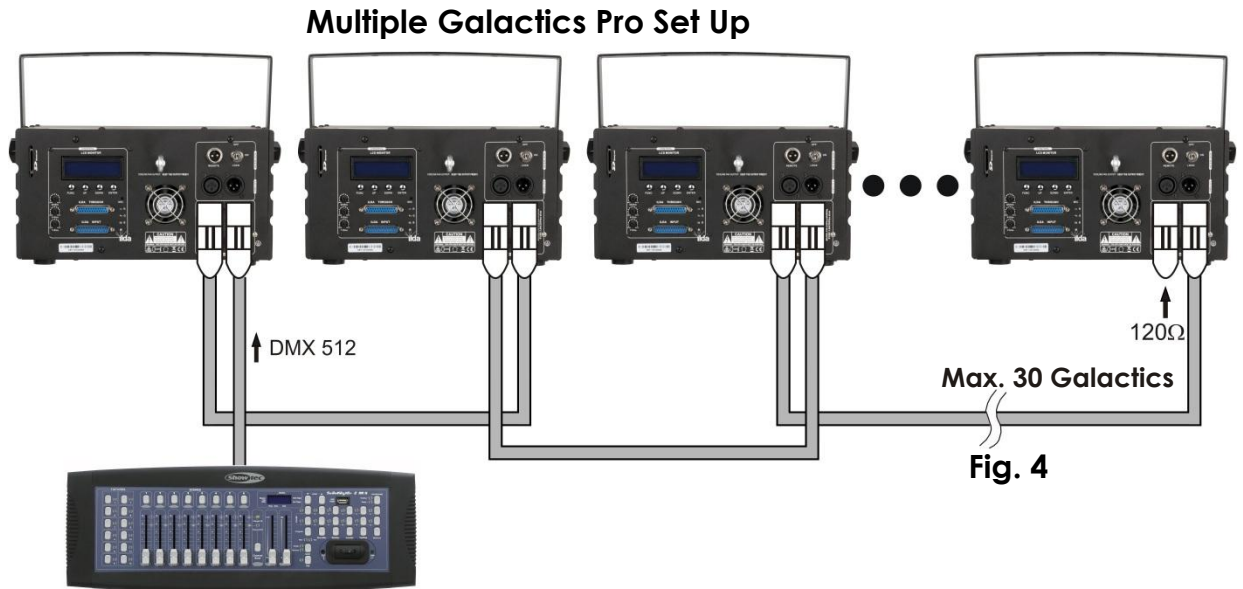


Fig. 3

## Multiple Galactic (DMX Control)

1. Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
2. Always use a safety cable (ordercode 70140 / 70141).
3. Use a 3-p XLR cable to connect the Galactic lasers.
4. Link the units as shown in (figure 4), Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units.
5. Supply electric power: Plug the end of the mains power cord into proper electric power supply sockets. Do so for all units and the controller.



**Note : Link all DMX cables and set dip switches before connecting electric power**

6. Do not supply power before the whole system is set up and connected properly. Design your show according to your DMX controller functions. See page 13 for more about DMX programming.

## Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows on two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

**Important:** Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard no more than 30 devices should be connected on one data link. Connecting more than 30 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.



Maximum recommended DMX data link distance: 100 meters  
Maximum recommended number of Galactics on a DMX data link: 30 fixtures

## Data Cabling

To link fixtures together you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

### DAP Audio Certified DMX Data Cables

- DAP Audio Basic microphone cable for allround use. bal. XLR/M 3 p. > XLR/F 3 p.  
**Ordercode** FL01150 (1,5m.), FL013 (3m.), FL016 (6m.), FL0110 (10m.), FL0115 (15m.), FL0120 (20m.).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL71150 (1,5m.), FL713 (3m.), FL716 (6m.), FL7110 (10m.).

## Control Panel

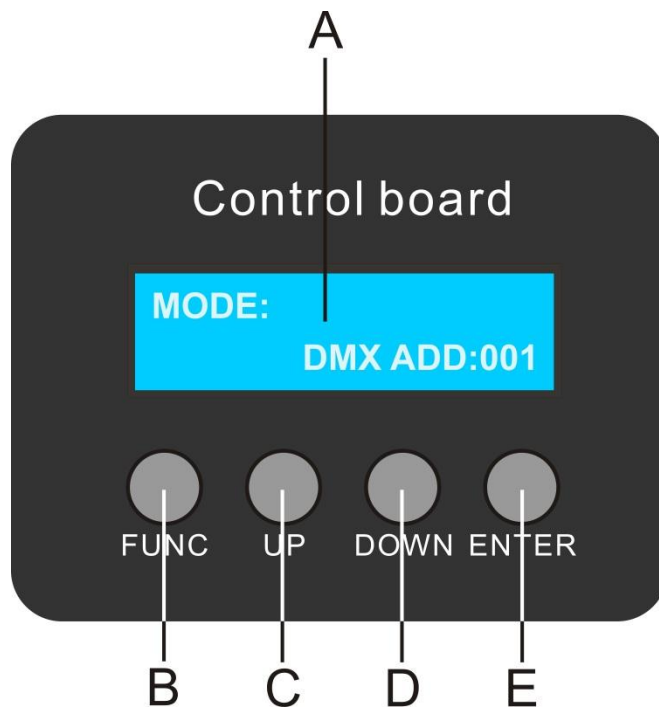


Fig. 5

A. LED Display  
B. Func Button  
C. Up Button

D. Down Button  
E. Enter Button

## Control Mode

The fixtures are individually addressed on a data-link and connected to the controller. The fixtures respond to the DMX signal from the controller.

## DMX Addressing

The control panel on the front side of the base allows you to assign the DMX fixture address, which is the first channel from which the Galactic will respond to the controller.

Please note when you use the controller, the unit has max. **13** channels.

When using multiple Galactic's, make sure you set the DMX addresses right.

Therefore, the DMX address of the first Galactic should be **1(001)**; the DMX address of the second Galactic should be **1+13=14**; the DMX address of the third Galactic should be **14+13=27**, etc.

Please, be sure that you don't have any overlapping channels in order to control each Galactic correctly. If two or more Galactic's are addressed similarly, they will work similarly.

For address settings, please refer to the instructions under "Addressing" (menu d001)

### Controlling:

After having addressed all Galactic's, you may now start operating these via your lighting controller.

**Note:** After switching on, the Galactic will automatically detect whether DMX 512 data is received or not. The problem may be:

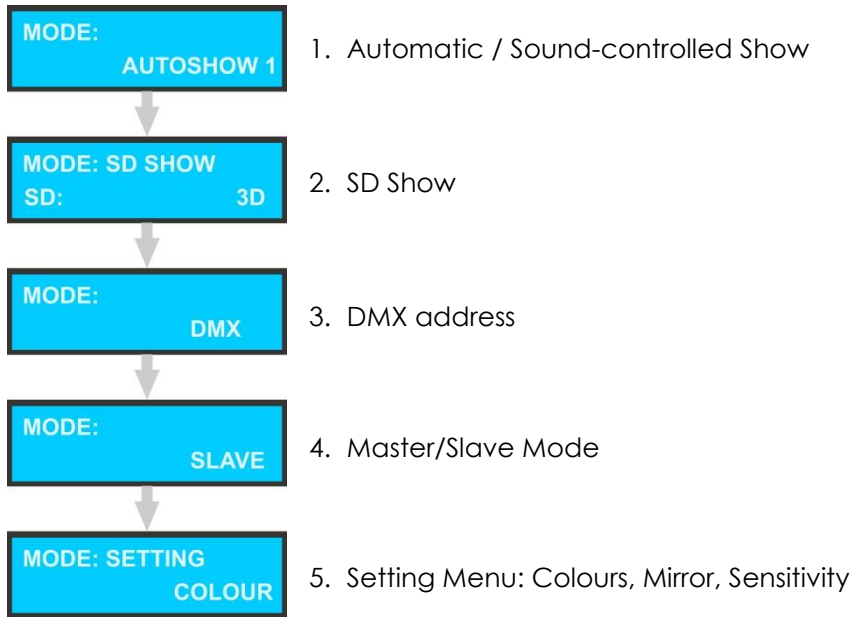
- The XLR cable from the controller is not connected with the input of the Galactic.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

**Note:** It's necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.








# Main Menu Options

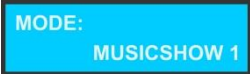


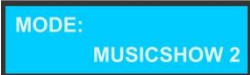
## 1. Automatic / Sound-controlled Show

- 1) Press the **FUNC** button, until the display shows  .
- 2) Use the Up / Down buttons to scroll through the entire menu.

 is a fast and exhilarating show, which is better suited for disco applications

 is a slow and relaxing show, which is better suited for lounge applications

 is a fast and exhilarating show, which is better suited for disco applications

 is a slow and relaxing show, which is better suited for lounge applications

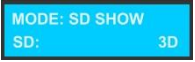
- 3) Use the **ENTER** button to store your setting.

**Attention:** When there is no sound/AUDIO/MIC signal for 3 seconds the laser will be OFF. As soon as the music is turned on again, the laser will go on.

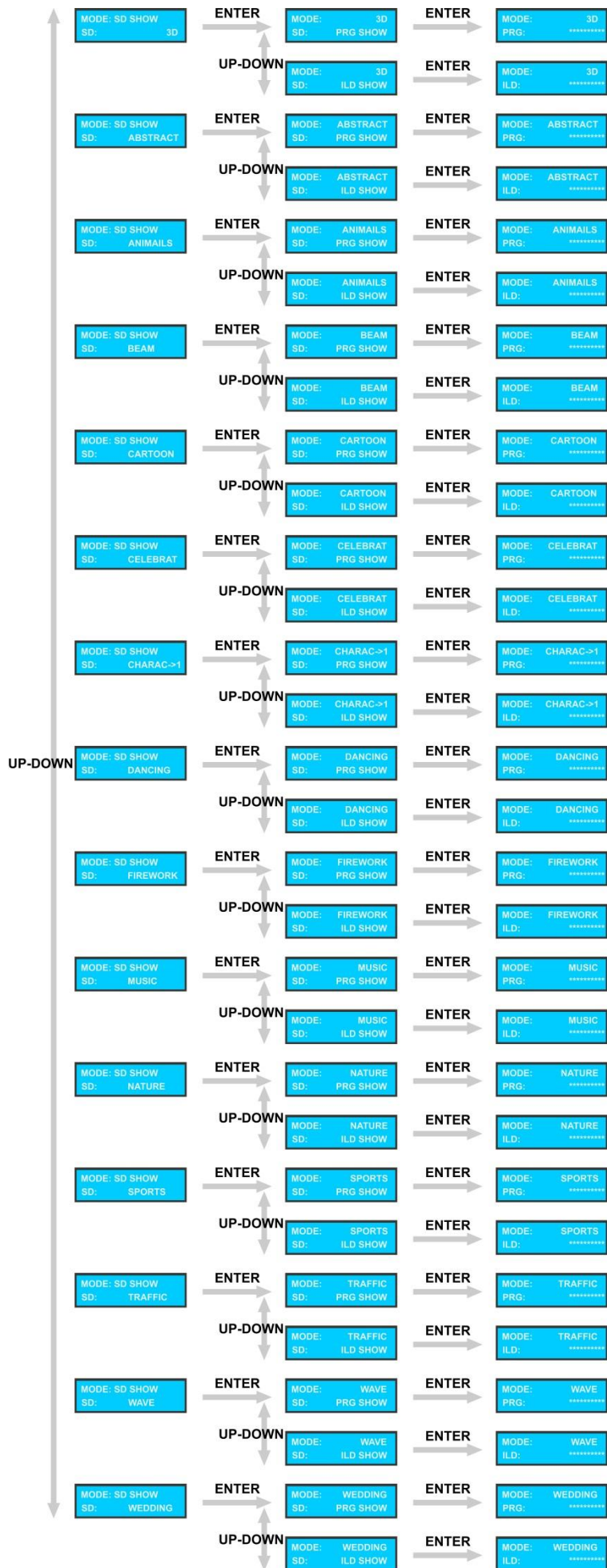
## 2. SD Show

Make sure the SD card is placed into the slot on the back of the device.



- 1) Press the **FUNC** button, until the display shows  .
- 2) Use the Up / Down buttons to scroll through the entire menu.
- 3) Each folder name has to be 8 characters including letter or numbers. Any folder name with more than 8 characters cannot be shown on the LCD display.





- 4) Press ENTER to open a specific folder.
- 5) Press Up / Down buttons to choose your show mode: **ILDA** single show  
**PRG** preprogrammed show.
- 6) Press ENTER to confirm the desired laser show.
- 7) Use the Up / Down buttons to scroll through the entire file menu.

**Attention:** Please **ONLY** put ILD-format laser shows on the SD card.  
DO NOT save any other files on it.  
The SD Card supports max. 100 folders with less than 255 files in each folder.  
The SD Card has to be a FAT32 format system.

One of the PRG preprogrammed shows on the SD card is located in the folder ANIMATION.  
To play a PRG preprogrammed show, a TXT file (with a WINDOW PC) has to be made in the same folder.  
Once the file is created and saved, the TXT file has to be renamed to \*.PRG

### Create your own show




- 1) In the folder ANIMA folder, there are 3 ILD-files, they are ANIMA1.ild, ANIMA2.ild, ANIMA3.ild.
- 2) If you want to create your own preprogrammed show with these 3 files, you should create a TXT files with the following contents:
  - ANIMA1.ild,12,3
  - ANIMA2.ild,20,1
  - ANIMA3.ild,18,4
- 3) Save this TXT file with name ANIMA.TXT.
- 4) Change the extension of the file name from ANIMA.TXT to ANIMA.PRG

**Explanation:** ANIMA1.ild,12,3

ANIMA1.ild is the **ILD** show name, **12** is the scanner speed, **3** is how many times you want this show to be repeated.


### 3. DMX Mode

With this menu you can set the DMX address.

- 1) When the laser is connected with DMX controlled device or if a DMX signal is present, the DMX LED on the front panel will light up RED.
- 2) Press the **FUNC** button, until the display shows  .
- 3) Press **ENTER** to open this menu.
- 4) You can choose 512 different DMX addresses.  
Use the Up / Down buttons to select the required address from  **UP/DOWN** 
- 5) Use the **ENTER** button to store your setting.


### 4. Slave Mode

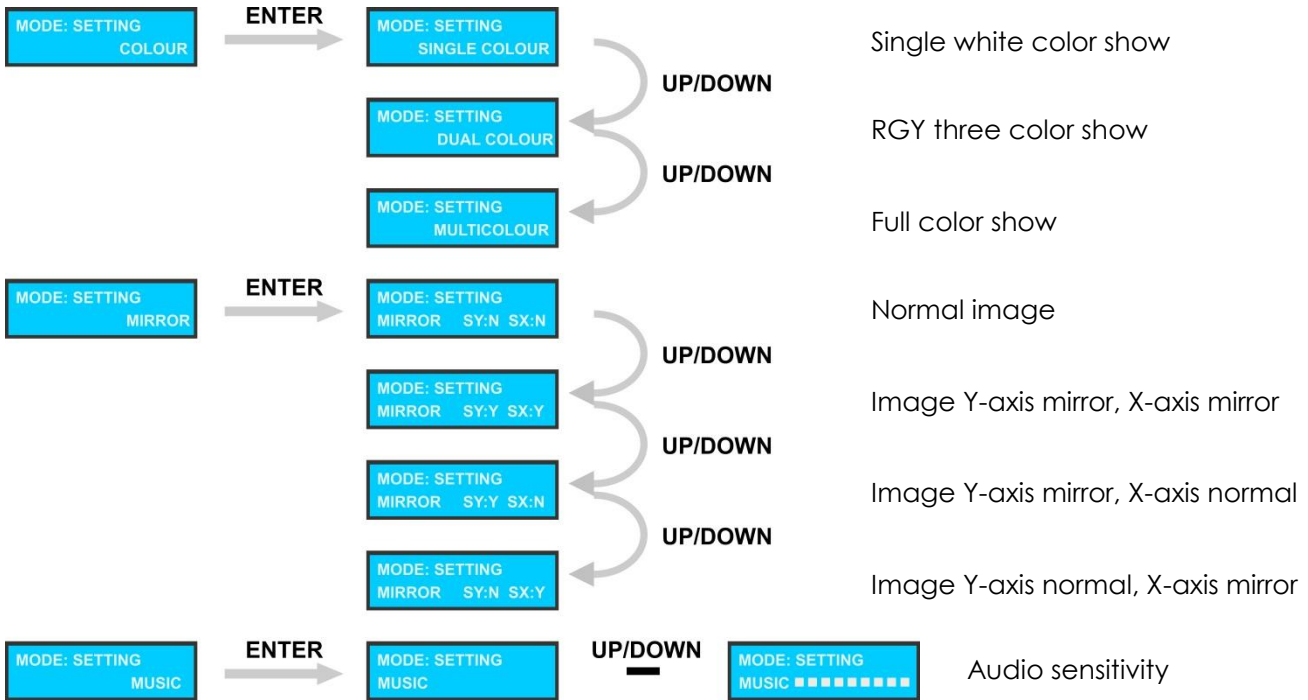
With this menu you are able to set the device as a slave device.

- 1) Press the **FUNC** button, until the display shows 
- 2) Use the **ENTER** button to store your setting.

## 5. Settings Mode

With this menu you are able to create a special setup.

- 1) Press the **FUNC** button, until the display shows 
- 2) Use the Up / Down buttons to choose between 3 main menus: Colour, Mirror or Music.
- 3) Press **ENTER** to open a specific menu.



- 4) Use the **ENTER** button to store your setting.

## ILDA Control Mode

This laser has an ILDA DB25 port, meaning it can be controlled by the PC.

There is an auto transform set in the unit's inside to transform the ILDA and preprogrammed shows. When connecting the 25 pin cable, the unit will be controlled by a PC. When you disconnect the unit, it will return to its preprogrammed program control.

In theory, as long as the ILDA B25 connector is connected, a PC can control this laser unit. But in reality, some software programs cannot control this unit, because pin 4 and 17 of the output card are not connected. In fact this is an easy to solve problem. As long as you connect them, you can control this unit.



# DMX Channels

## 13 Channels

### Channel 1 – Built-in Programs / Sound-controlled Mode

0-73	Laser OFF
74-110	<b>PRG Show</b> only via the SD card
111-147	<b>ILD Show</b> only via the SD card
148-165	Auto Show 1
166-184	Auto Show 2
185-202	Music-controlled Show 1
203-221	Music-controlled Show 2
222-255	<b>DMX MODE</b> (CH2-13 activated)

**⚠ Only when CH1 is set between 221-255, CH2-CH13 will function ⚠**

### Channel 2 – Folders on SD Card in PRG or ILD Mode

0-255	Folders
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### Channel 3 – Shows on SD Card in PRG or ILD Mode

0-255	Shows
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**⚠ CH2-CH13 will only function, when CH1 is set between 221-255 ⚠**

### Channel 2 – 86 Patterns

0-255	86 Individual patterns (For exact values see page 20)
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### Channel 3 – Strobe

0-10	No Strobe
11-199	Strobe from slow to fast
200-255	Sound-controlled Strobe

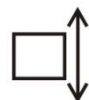
### Channel 4– X-axis Moving

0-125	125 different fixed positions on X Axis
126-185	Moving from slow to fast
186-225	Moving with random speed
226-245	Random Position
246-255	Sound-controlled to random position



### Channel 5 – Y-axis Moving

0-125	125 different fixed positions on Y Axis
126-185	Moving from slow to fast
186-225	Moving with random speed
226-245	Random Position
246-255	Sound-controlled to random position



### Channel 6 – Zoom

0-10	Original Size
11-100	Fixed Size (if angle <1°, the laser will shut down to prevent danger)
101-150	Zooming Out from slow to fast
151-200	Zooming In from slow to fast
201-255	Zooming Out and In from slow to fast



**Channel 7 – Y-axis Rolling**

0-10	No Rolling
11-110	0-359 degree fixed Y Axis rolling
111-255	Rolling from slow to fast



**Channel 8 – X-axis Rolling**

0-10	No Rolling
11-110	0-359 degree fixed X Axis rolling
111-255	Rolling from slow to fast



**Channel 9 – Z-axis Rolling**

0-127	No Rolling
128-191	0-359 degree fixed Z Axis rolling
192-255	Rolling from slow to fast



**Channel 10 – Clipping**

0-10	Original Pattern
11-74	Fixed Clipping (drawing the images)
75-104	Clipping Out from slow to fast (drawing clockwise)
105-144	Clipping In from slow to fast (drawing counterclockwise)
145-184	Clipping Out and In from slow to fast
185-224	Clipping On from slow to fast (showing image and then erasing CCW)
225-255	Clipping Off from slow to fast (showing image and then erasing CW)

**Channel 11 – Wave**

0-10	Original Pattern from slow to fast
11-74	Wave Effect in pattern with speed control from slow to fast
75-255	Wave Effect in pattern with amplitude control from slow to fast

**Channel 12 – Colour**

0-16	White
17-33	Red
34-50	Green
51-67	Blue
68-84	Yellow
85-101	Magenta
102-118	Cyan
119-135	White, Red, Green, Blue; 4 fixed colours
136-152	Blue, Yellow, Magenta, Cyan; 4 fixed colours
153-169	Seven Colors
170-186	White, Red, Green, Blue; 4 color rolling
187-203	Blue, Yellow, Purple, Cyan; 4 color rolling
204-220	Seven Colors; color rolling
221-237	Original Color
238-255	Color changing to sound

**Channel 13 – Patterns**

0-63	Original pattern
64-127	Pattern with bright points
128-191	Pattern blanking
192-255	Points to make a pattern



0-63



64-127



128-191



192-255

# Patterns

000-001		051-053		102-104		153-155		207-209	
002-005		054-056		105-107		156-158		210-212	
006-008		057-059		108-110		159-161		213-215	
009-011		060-062		111-113		162-164		216-218	
012-014		063-065		114-116		165-167		219-221	
015-017		066-068		117-119		168-173		222-224	
018-020		069-071		120-122		174-176		225-227	
021-023		072-074		123-125		177-179		228-230	
024-026		075-077		126-128		180-182		231-233	
027-029		078-080		129-131		183-185		234-236	
030-032		081-083		132-134		186-188		237-239	
033-035		084-086		135-137		189-191		240-242	
036-038		087-089		138-140		192-194		243-245	
039-041		090-092		141-143		195-197		246-248	
042-044		093-095		144-146		198-200		249-251	
045-047		096-098		147-149		201-203		252-254	
048-050		099-101		150-152		204-206		255	

## ILD and PRG files on SD Card

### 3D

3\_cube.ild  
3D.PRG  
maze.ild  
molecule.ild  
mystify.ild  
PLASMA.ild  
SPIND.ild  
SWIRL.ild  
tunnel.ild  
wall.ild  
WUERFEL.ild

### Abstract

abs01.ild  
abs02.ild  
abs03.ild  
abs04.ild  
abs05.ild  
abs06.ild  
abs07.ild  
Abstract.PRG  
Glow.ild  
SWIRLY.ild  
WAVLG.ild

### Animails

3D2DRudy.ild  
adler.ild  
Animails.PRG  
Bat.ild  
bear.ild  
BELUGAS.ild  
bird.ild  
BIRDS.ild  
dinosaur.ild  
fisch.ild  
fische.ild  
FISHEAT.ild  
ilddolf.ild  
kangaroo.ild  
MINGO.ild  
mouse.ild  
OSTRIH.ild  
PeaceDo.ild  
Pelican.ild  
RHINO.ild  
starabit.ild  
ZEBRA.ILD

### Beam

2\_circle.ild  
8\_circle.ild  
8\_flower.ild  
Beam.PRG  
beat.ild  
c\_cirle.ild  
c\_Line.ild  
cir\_roat.ild  
cir\_zoom.ild  
d\_circle.ild  
fan.ild  
flying.ild  
GRIDDOTS.ild  
Line\_cir.ild  
line\_x.ild  
lines.ild  
p\_cross.ild  
radiance.ild  
rect.ild  
turbine.ild  
x\_circle.ild  
x3.ild  
XDOTS.ild

### Cartoon

ATTACK.ild  
cart01.ild  
cart02.ild  
cart03.ild  
cart04.ild  
cart05.ild  
Cartoon.PRG  
Cat.ild  
duck.ild  
monkey.ild  
skunk.ild

### Celebrat

baby.ild  
bell.ild  
bimmel.ild  
candles.ild  
Celebrat.PRG  
Cheers.ild  
count.ild  
santa.ild  
tree.ild  
xmas.ild

### Character

alice.ild  
BELLE.ild  
Character.PRG  
MAGIC.ild  
Naked.ild  
neptune.ild  
Pamela.ild  
Vampress.ild  
wife.ild

### Dancing

ANI017.ild  
ANI066.ild  
Dancing.PRG  
spin.ild  
strip.ild  
taenzer.ild

### Firework

Firework.PRG  
fwbang.ild  
SPKG.ild  
SWIRL.ild

### Music

ANI055.ild  
bass.ild  
Music.PRG  
PIANO.ild  
play.ild

### Nature

earthrot.ild  
Nature.PRG  
planet.ild  
RAIN.ild  
seagull.ild  
SLSTARS1.ild  
Stars.ild

### Sports

baseball.ild  
BRONCO.ild  
bskball.ild  
catch.ild  
robo.ild  
skate.ild  
Sports.PRG

### Traffic

747.ild  
balloon.ild  
Camero.ild  
DAYBOAT.ild  
formula1.ild  
Galleon.ild  
Jet.ild  
plane.ild  
Traffic.PRG  
TRAIN.ild  
WIWil.ild

### Wave

2wave.ild  
circle\_w.ild  
d\_wave.ild  
dot\_wave.ild  
free.ild  
m\_wave.ild  
swiming.ild  
tri\_wave.ild  
Wave.PRG  
wave2.ild  
xwave.ild

### Wedding

2heart.ild  
diamond.ild  
flower.ild  
rose.ild  
Valen.ild  
Wedding.PRG



## Maintenance

The Showtec Galactic requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light-output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents. Keep connections clean. Disconnect electric power, and then wipe the connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power. The operator has to make sure that safety-relating and machine-technical installations are to be inspected by an expert after every four years in the course of an acceptance test. The operator has to make sure that safety-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.

## Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

1. Unplug the unit from electric power source.
2. Insert a screwdriver into the slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
3. Remove the used fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

## Troubleshooting

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. If the device does not operate properly, unplug the device.
2. Check the power from the wall, the fuse, all cables etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If you are unable to determine the cause of the problem, do not open the Galactic, as this may damage the unit and the warranty will become void.
5. Return the machine to your Showtec dealer.

## No Light

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps. If the laser effect does not operate properly, refer servicing to a technician.

Response: Suspect three potential problem areas: the power supply, the laser, the fuse.

1. Power supply. Check that the unit is plugged into an appropriate power supply.
2. The laser. Return the device to your Showtec dealer.
3. The fuse. See page 22 for replacing the fuse.

## No Response to DMX

Response: Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

1. Check the DMX setting. Make sure that DMX addresses are correct
2. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
3. Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

See next page for more problem solving.



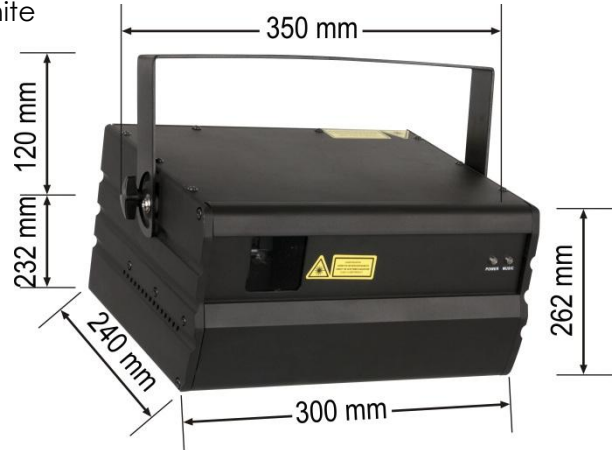
<b>Problem</b>	<b>Probable cause(s)</b>	<b>Remedy</b>
One or more fixtures are completely dead.	No power to the fixture	<ul style="list-style-type: none"> <li>• Check that power is switched on and cables are plugged in.</li> </ul>
	Primary fuse blown.	<ul style="list-style-type: none"> <li>• Replace fuse.</li> </ul>
Fixtures reset correctly, but all respond erratically or not at all to the controller.	The controller is not connected.	<ul style="list-style-type: none"> <li>• Connect controller.</li> </ul>
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed).	<ul style="list-style-type: none"> <li>• Install a phase reversing cable between the controller and the first fixture on the link.</li> </ul>
Fixtures reset correctly, but some respond erratically or not at all to the controller.	Poor data quality	<ul style="list-style-type: none"> <li>• Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link.</li> </ul>
	Bad data link connection	<ul style="list-style-type: none"> <li>• Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.</li> </ul>
	Data link not terminated with 120 Ohm termination plug.	<ul style="list-style-type: none"> <li>• Insert termination plug in output jack of the last fixture on the link.</li> </ul>
	Incorrect addressing of the fixtures.	<ul style="list-style-type: none"> <li>• Check address setting.</li> </ul>
	One of the fixtures is defective and disturbs data transmission on the link.	<ul style="list-style-type: none"> <li>• Bypass one fixture at a time until normal operation is regained: unplug both connectors and connect them directly together.</li> <li>• Have the defective fixture serviced by a qualified technician.</li> </ul>
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed).	<ul style="list-style-type: none"> <li>• Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture, that behaves erratically.</li> </ul>
No laser	The power supply settings do not match local AC voltage and frequency.	<ul style="list-style-type: none"> <li>• Disconnect fixture. Check settings and correct if necessary.</li> </ul>
	Laser damaged.	<ul style="list-style-type: none"> <li>• Disconnect fixture. Check settings and correct if necessary.</li> </ul>

# Product Specification

Model: Showtec Galactic RGB850

The Showtec Galactic RGB850 is a laser effect with high output and great effects.

- When using multiple units together, you can make a great and cost effective beam-show
- Create your own designs and shows, with any kind of ILDA laser software
- Equipped with a 20K scanner pair which makes faster and bigger projections possible with less flickering
- For rental solutions you can use the SD card slot to run pre-programmed shows without any controller
- Only 850mW: With help of the new 200mW 638nm red laser, the visual brightness is close to that of a 1.2W traditional RGB laser with a 660nm red laser.
- Laser Power: 850mW (200mW 638nm Red, 150mW 532nm Green, 500mW 450nm Blue)
- Laser Color: Red, Yellow, Green, Blue, Purple, Cyan, White
- Power Input: AC 100-240V, 50/60Hz
- Power Consumption: 68 Watt
- Scan Speed: 20K
- Beam Diameter <5mm at aperture
- Laser Class: 4
- Laser Modulation: TTL
- Laser Safety: EN/IEC 60825-1 Ed 2, 2007-03
- Scan Angle: +/-60°
- 2 x Auto Show + 2 x Music Show
- 86 Animated Graphic Show Patterns
- Perfect White color Balance
- Auto Detected ILDA Signal Interface
- 3D adjustable Color Mixer
- Beam, Wave, Text, Animation, Logo
- Control Modes: Auto, Sound, Master/Slave, DMX, ILDA, SD-Card
- Divergence (each beam) <2 mrad; Divergence (total light) <40 degrees
- 3-pin DMX In and 3-pin DMX Out, Sub-D 25 Pole
- Clear LCD display for all settings
- Compact strong metal housing
- You can project two built-in patterns at the same time
- Music-controlled via built-in microphone
- 13 DMX Channels
- Safety Features: Key switch, Interlock, Safety eye
- Fuse 1,6 A / 250V
- Dimensions: 300 x 240 x 262mm (LxWxH excl. bracket); Weight: 7,74 Kg
- Dimensions flightcase: 520 x 330 x 200mm; Weight flightcase: 6,40 Kg



- Accessories Included: 2 Keys, Interlock test connector, flightcase, 20m ILDA cable, 2Gb SD card

### Minimum distance:

Minimum distance from flammable surfaces: 0.5m

Minimum distance to lighted object: 0.8m



Design and product specifications are subject to change without prior notice.



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