

Technical Specifications

| | Streamer Laser |
|-------------|--|
| Power | AC 120V 60Hz / AC 230V 50Hz |
| Fuse | 20mm Glass 2.5A 250v Fast Blow |
| Laser diode | Green 4.9 mW laser diode Wavelength 532 nm Red 4.9 mW laser diode Wavelength 650 nm |
| Dimensions | 340 x 142 x 169 mm / 13.39 x 5.59 x 6.65 in |
| Weight | 4 .8kg / 10.56 lbs |

User Information (Please complete for your records)

Data Purchased : / / Serial No. : _____

Dealer Stamp :

Model :

CHAUVET®
Value • Innovation • Performance



Orbiter RG

LGG-2050GR

User Guide

Please read these instructions carefully before use

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5. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. If the unit does not work- no light output or fan is not working

1. Check the main power connection and the fuse.
2. Measure the mains voltage on the main power connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. Some units don't respond to the easy controller

1. You may have a break in the DMX cabling. Check the LED for the response of the master/slave mode signal.

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D. No response to the sound

1. Check the unit that is not receiving DMX signal.
2. Check the unit that is not set to display mode.
3. Check microphone to see if it is good by tapping the microphone.

E. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motor's drive IC on the PCB might be out of condition.

6. Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- Clean with soft cloth using normal glass cleaning fluid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

1. Safety Instruction



Please read carefully the instruction, which includes important information about the installation, usage and maintenance.

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The following points are important for safety as well as for the smooth installation and performance of the unit.

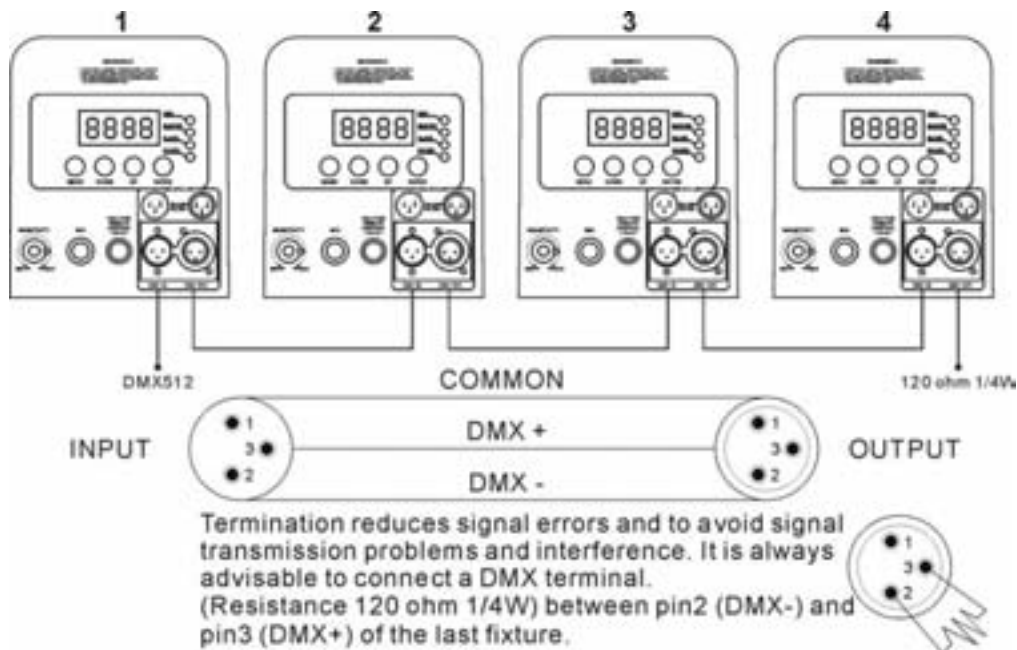
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- Unpack carefully and be sure that no damage has occurred during transportation.
 - It is very important to ground the yellow/green conductor in order to meet regulations for safety.
 - Do not connect the device to any dimmer pack.
 - The electrical work that is necessary for installation must be made by qualified personnel.
 - Be sure to locate the unit in a place with adequate ventilation at least 15 cm from the walls. Be sure that no ventilation slots are blocked.
 - Be careful that no liquids or other objects can enter the unit. If this ever happens, disconnect the main power immediately.
 - In the event of serious operating problems, turn off the power immediately. Never try to repair the unit yourself. Repairs carried out by non-qualified personnel can lead to serious damage or malfunction. Please contact your dealer for technical assistance. Always use genuine spare parts.
 - Always remember to unplug the unit from the power mains before any service is done.

IMPORTANT: Install the laser projector in a manner that prevents the audience from looking directly into the beams. The installation should assure that the beam will not strike the audience.

•• DANGER •• VISIBLE LASER RADIATION-AVOID DIRECT EYE EXPOSURE

4.5 DMX512 Connection

The DMX512 is widely used in intelligent lighting control, with a maximum of 512 channels.



1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.
2. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
3. Connect the unit together in a "daisy chain" by XLR plug from the output of the unit to the input of the next unit. The cable can not be branched or split to a "Y" cable. DMX512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
4. The DMX output and input connectors are pass-through to maintain the DMX circuit, when power is disconnected to the unit.
5. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
6. The end of the DMX512 system should be terminated to reduce signal errors.
7. 3 pin XLR connectors are more popular than 5 pin XLR.
 - 3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
 - 5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

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4.4 DMX512 Configuration

| DMX-512 Configuration | | |
|---|--|---|
| CHANNEL 1 | CHANNEL 2 | CHANNEL 3 |
| Pan | Barrel Rotation | Laser Diode ON/OFF |
| 255 240 224 208 192 176 160 144 128 112 96 80 64 48 32 16 0 | Stoppec Fast Stoppec Slow Fast Stoppec | Loop R-Dot 4+G-Dot 4 R-Dot 4+G-Dot 1 R-Dot 3+G-Dot 3 R-Dot 3+G-Dot 7 R-Dot 6+G-Dot 2 R-Dot 1+G-Dot 5 R-Dot 4 R-Dot 3 R-Dot 2 R-Dot 1 G-Dot 4 G-Dot 3 G-Dot 2 G-Dot 1 OFF |
| | | Green & Red ON Red ON Green ON |

2. Technical Specification

Power supply

- AC 120V~60Hz
- AC 230/240/250V~50/60Hz

Laser diode

- Green 4.9mW laser diode x 1
- Red 4.9mW laser diode x 2

Movement

- Pan: 180° scan.
- Barrel: 360° rotation.

DMX Channels

- Standard DMX512 signal addressing and can be controlled by any universal DMX controller.

Channel 1 = Pan motion

Channel 2 = Barrel rotation

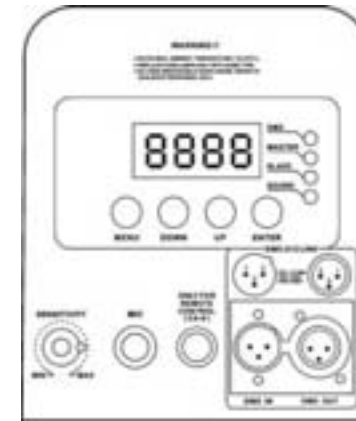
Channel 3 = Laser ON/OFF

Dimension: 340 x 142 x 169 mm

Weight: 4.8 kg

3. How To Set The Unit

3.1 Control Panel



1. Display

To show the various menu and the selected functions.

2. LED

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| | | |
|--------|----------|-------------------|
| DMX | On | DMX input present |
| MASTER | On | Master mode |
| SLAVE | On | Slave mode |
| SOUND | Flashing | Sound activation |

3. Button

| | |
|-------|--|
| MENU | To select the programming functions |
| DOWN | To go backward in the selected functions |
| UP | To go forward in the selected functions |
| ENTER | To confirm the selected functions |

4. Remote controller input

By connect to the 1/4" microphone jack to control the unit for Stand by, Strobe/Next and Fast/Slow function.

5. Sensitivity

To adjust the sensitivity to sound.

6. Microphone

To receives audio signal for sound activation.

7. DMX input/output

For DMX512 link, use 3-pin XLR plug cable to link the unit together.

CAUTION: Use of controls or adjustments or performance of procedures other than as specified herein may result in hazardous radiation exposure.

4.2 Easy Controller

The easy remote control is used only in master/slave mode. By connecting to the 1/4" microphone jack of the first unit, you will find that the remote control on the first unit will control all the other units for Stand by, Strobe/Next and Fast/Slow function.

1. **STAND BY:** To blackout all the unit.

2. **STROBE/NEXT:** Under FAST/SLOW mode, the lights have six different effects, press NEXT button to choose desired effect.

Effect 1: Light green on, barrel reflector in slow motion.

Effect 2: Light green & red on in turns, barrel reflector in slow motion.

Effect 3: Light green & red on together, barrel reflector in slow motion.

Effect 4: Light green on, barrel reflector in fast motion.

Effect 5: Light green & red on in turns, barrel reflector in fast motion.

Effect 6: Light green & red on at the same time, barrel reflector in fast motion.

3. **FAST/SLOW:** When the LED is off, it is in FAST mode. The unit's Pan/Barrel is sound activated and Pan scans/moves fast. If the LED on, it is in SLOW mode, Pan/Barrel is sound activated but Pan scans/moves slowly.



4.3 Universal DMX Controller

If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 channel so that the units can receive DMX signal.

Press the **MENU** button up to when the **Addr** is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the DMX512 address. Once the address has been selected, press and keep **ENTER** button pressed up to when the display stops blinking or storing automatically 8 seconds later. To go back to the functions without any change press the **MENU** button again. Please refer to the following diagram to address your DMX512 channel for the first 4 units.



4. How To Control The Unit

You can operate the unit in three ways:

1. By master/slave built-in preprogram function
2. By easy controller
3. By universal DMX controller

No need to turn the unit off when you change the DMX address, as new DMX address setting will be effected at once. Every time you turn the unit on, it will show A-rL on the display and move all the motors to their 'home' position and you may hear some noises for about 20 seconds. After that the unit will be ready to receive DMX signal or run the built in programs.

4.1 Master/Slave Built In Preprogrammed Function

By linking the units in master/slave connection, the first unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show. Its DMX input jack will have nothing plugged into it, and its master LED will be constantly on and sound LED will flash to the music. The other units will have to set in slave mode **SLNd** and select **no** (normal) or **2LSH** (2 light show) mode, Their DMX cables plugged into the DMX input jacks (daisy chain) and the slave led lights will constantly on.

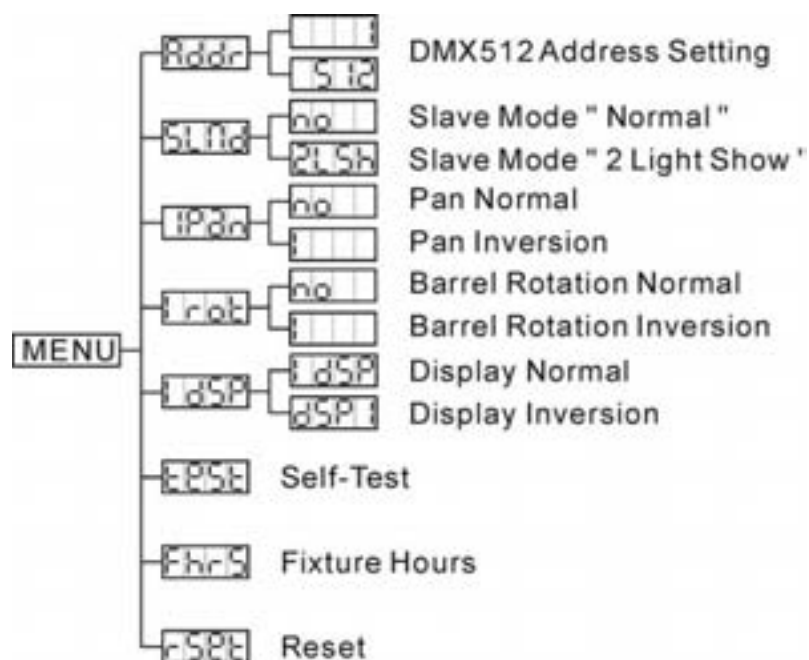
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2-light show

In **SLNd** (slave mode), **no** means the unit works normally and **2LSH** means 2-light show. In order to create a great light show, you can set **2LSH** on the second unit to get contrast movement to each other, even if you have two units only.

3.2 Main Function

To select any of the given functions, press the **MENU** button up to when the required one is showing on the display. Select the function by **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the mode. Once the required mode has been selected, press the **ENTER** button to setup or it will automatically return to the main functions without any change after idling 8 seconds. To go back to the functions without any change press the **MENU** button. The main functions are showing below:



Addr DMX512 Address Setting

Press the **MENU** button up to when the **Addr** is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the DMX512 address. Once the address has been selected, press the **ENTER** button to setup or automatically return to the main functions without any change after 8 seconds. To go back to the functions without any change press the **MENU** button again.

SLNd Slave Mode

Press the **MENU** button up to when the **SLNd** is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to select the **no** (normal) or **2LSH** (2 light show) mode. Once the mode has been selected, press the **ENTER** button to setup or automatically return to the main functions without any change after 8 seconds. To go back to the functions without any change press the **MENU** button again.

IPAn Pan Inversion

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Press the **MENU** button up to when the **IPAn** is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to select the **no** (normal) or (pan inversion) mode. Once the mode has been selected, press the **ENTER** button to setup or automatically return to the main functions without any change after 8 seconds. To go back to the functions without any change press the **MENU** button again.

lrot Barrel Rotation Inversion

Press the **MENU** button up to when the **lrot** is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to select the **no** (normal) or (Barrel Rotation inversion) mode. Once the mode has been selected, press the **ENTER** button to setup or automatically return to the main functions without any change after 8 seconds. To go back to the functions without any change press the **MENU** button again.



Display Inversion

It is good for you to install the unit on the floor or under ceiling. Press the **MENU** button up to when the  is blinking on the display. Use the **ENTER** button to change to the mode  (display inversion), It will automatically store after 8 seconds. Or press the **ENTER** button again return to the mode  (display normal). To go back to the functions press the **MENU** button.




Display normal mode for the fixture putting on the floor.

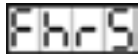


Display inversion mode for the fixture fixing under ceiling.




Self-Test

Press the **MENU** button up to when the  is blinking on the display. Pressing **ENTER** button and the unit will run self-test by built in program. To go back to the functions press the **MENU** button again.




Fixture Hours

Press the **MENU** button up to when the  is blinking on the display. Pressing **ENTER** button and the display will show the number of working hours of the unit. To go back to the functions press the **MENU** button again.

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Reset

Press the **MENU** button up to when the  is blinking on the display. Pressing **ENTER** button and all channels of the unit will return to their standard position. To go back to the functions press the **MENU** button again.