laser blade tm

blizzard LIGHTING

Blizzard Lighting, LLC
www.blizzardlighting.com
Waukesha, WI USA

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1. GETTING STARTED

What's In The Box?

- 1 x Laser Blade™ G Moving Head Fixture
- 1 x Ever-So-Handy Power Cord
- This Lovely User Manual

Getting It Out Of The Box

Congratulations! You are ready to put on a totally stellar green laser light show with your way cool, super-sharp moving head Laser Blade™ G! So now that you've got your new Laser Blade™ G (or hopefully, *GEEZ!*), you should carefully unpack the box and check the contents to ensure that all parts are present and in good condition. If anything looks as if it has been damaged in transit, notify the shipper immediately and keep the packing material for inspection. Again, please save the carton and all packing materials. If a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Powering Up!

All fixtures must be powered directly off a switched circuit and **cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch**.

AC Voltage Switch - Not all fixtures have a voltage select switch, so please verify that the fixture you receive is suitable for your local power supply. See the label on the fixture or refer to the fixture's specifications chart for more information. A fixture's listed current rating is its average current draw under normal conditions. Check the fixture or device carefully to make sure that if a voltage selection switch exists that it is set to the correct line voltage you will use.

Warning! ***Verify that the voltage select switch on your unit matches the line voltage applied. Damage to your fixture may result if the line voltage applied does not match the voltage indicated on the voltage selector switch. All fixtures must be connected to circuits with a suitable Ground (Earthing).***

Getting A Hold Of Us

If something happens goes wrong, please visit www.blizzardlighting.com/support and open a support ticket. We'll be happy to help, honest.

Blizzard Lighting
N24 W23750 Watertown Rd. Suite B
Waukesha, WI 53188 USA
www.blizzardlighting.com

Author:	Date:	Last Edited:	Date:
J. Thomas	11/16/2015	J. Thomas	11/16/2015

LASER SAFETY REQUIREMENTS

Lasers are one of the coolest effects available, and when they are used appropriately, they will be fun, legal and harmless. To make sure that is the case...

• Always set up and install all laser effects so that all laser light is at least 3 meters (9.8 feet) above the floor on which people can stand.

• After setting up, and before public use, test laser to ensure proper function. Do not use if any defect is detected. Do not use if laser emits only one or two laser beams rather than dozens/hundreds, as this could indicate damage to the diffraction grating optic, and could allow emission of higher laser levels above Class 3R.

• **NEVER** point lasers at people or animals. Never look into the laser aperture or laser beams.

• **NEVER** point lasers in areas in which people can potentially get exposed, such as uncontrolled balconies, etc.

• **NEVER** point lasers at highly reflective surfaces, such as windows, mirrors and shiny metal. Even laser reflections can be hazardous.

• **NEVER** point a laser at aircraft, **this is a federal offense!**

• **NEVER** point un-terminated laser beams into the sky.

• **NEVER** expose the output optic (aperture) to cleaning chemicals.

• **NEVER** use laser if the laser appears to emit only one or two beams.

• **NEVER** use the laser if the housing is damaged, the housing is open, or if the optics appear damaged in any way.

• **NEVER** open the laser housing. The high laser power levels inside of the protective housing can start fires, burn skin and will cause instant eye injury.

• **NEVER** leave this device running unattended.

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 from this manual. 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.

2. MEET THE LASER BLADE™ G

MAIN FEATURES

- 50mW, 532nm green DPSS CLASS 3R fat beam laser
- 15KPPS galvo scanners
- Moving head features 540º pan & 270º tilt
- 133 built-in geometric figures, 14 animations, & 76 beam patterns
- Easy-to-use 4-button LCD control panel menu
- Built-in auto-beam, auto-animation and sound-activate programs
- 2 animations in one frame can be operated separately via DMX
- Perfect for venues, large and small
- Ready to use right out of the box

ADDITIONAL FEATURES

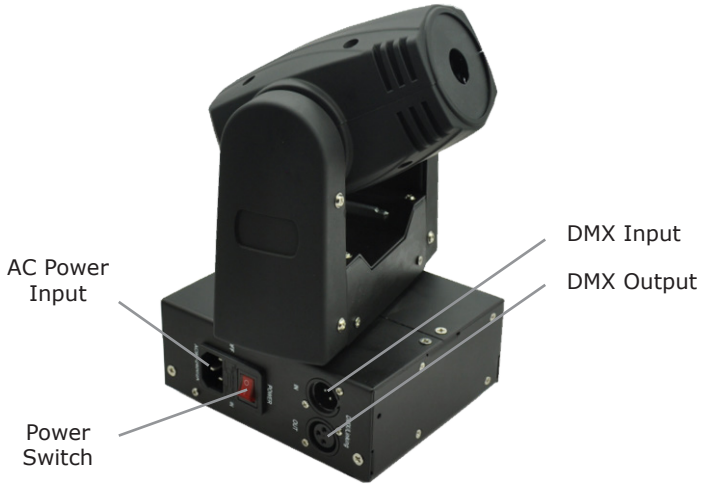
- Rugged and well-built (It hits the gym regularly)
- Lightweight and easily portable
- Clamp mounting bracket included
- IEC power input connector
- Easy-to-use 4-button LCD control panel
- 3-pin DMX input and output

DMX Quick Reference

Channel	18-Channel
1	Mode Selection, DMX/Auto/Sound
2	Pan
3	Tilt
4	Vertical Speed (Slow <--> Fast)
5	Group 1, Pattern Selection
6	Group 1, OFF/ON
7	Group 2, Pattern Selection
8	Group 2, OFF/ON
9	2 Groups Animation
10	Moving-X
11	Moving-Y
12	X-Axis Rotation
13	Y-Axis Rotation
14	Rotation
15	Zoom In/Out
16	Sine Wave Fluctuation
17	Fluctuation Speed
18	Auto Dot (Slow <--> Fast)

Figure 1: The Laser Blade™ G Pin-Up Picture

Figure 2: The Rear Connections

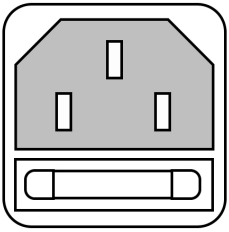


3. SETUP

Before replacing a fuse, disconnect power cord. ALWAYS replace with the same type and rating of fuse.

Fuse Replacement

With a flat head screwdriver, wedge the fuse holder out of its housing. Remove the damaged fuse from its holder and replace with exact same type fuse (2A, 250V). Insert the fuse holder back in its place and reconnect power.



Connecting A Bunch of Laser Blade™ G Fixtures

You will need a serial data link to run light shows using a DMX-512 controller or to run shows on two or more fixtures set to sync in 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.

Fixtures on a serial data link must be daisy chained in one single line. Also, connecting more than 32 fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.
The maximum recommended cable-run distance is 500 meters (1640 ft). The maximum recommended number of fixtures on a serial data link is 32 fixtures.

Data/DMX Cabling

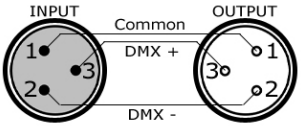
To link fixtures together you'll need data cables. You should use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

For instance, Belden© 9841 meets the specifications for EIA RS-485 applications. Standard microphone cables will "probably" be OK, but note that they cannot transmit DMX data as reliably over long distances. In any event, the cable should have the following characteristics:

2-conductor twisted pair plus a shield
Maximum capacitance between conductors – 30 pF/ft.
Maximum capacitance between conductor & shield – 55 pF/ft.
Maximum resistance of 20 ohms / 1000 ft.
Nominal impedance 100 – 140 ohms

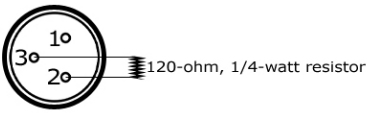
Cable Connectors

Cables must have a male XLR connector on one end and a female XLR connector on the other end. (Duh!)



A Word on Termination: DMX is a resilient communication protocol, however errors still occasionally occur. Termination reduces signal errors, and therefore best practices include use of a terminator in all circumstances. If you are experiencing problems with erratic fixture behavior, especially over long signal cable runs, a terminator may help improve performance.

To build your own DMX Terminator: Obtain a 120-ohm, 1/4-watt resistor, and wire it between pins 2 & 3 of the last fixture. They are also readily available from specialty retailers.



CAUTION: Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

3-Pin??? 5-Pin??? Huh?!?

If you use a controller with a 5 pin DMX output connector, you will need to use a 5 pin to 3 pin adapter. They are widely available over the internet and from specialty retailers If you'd like to build your own, the chart below details a proper cable conversion:

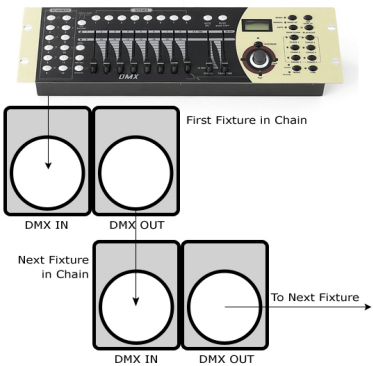
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
DMX Data (-)	Pin 2	Pin 2
DMX Data (+)	Pin 3	Pin 3
Not Used.	No Connection.	No Connection.
Not Used.	No Connection.	No Connection.

Take It To The Next Level: Setting Up DMX Control

Step 1: Connect the male connector of the DMX cable to the female connector (output) on the controller.

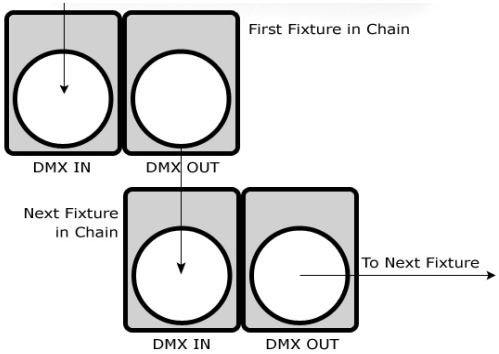
Step 2: Connect the female connector of the DMX cable to the first fixture's male connector (input). *Note:* It doesn't matter which fixture address is the first one connected. We recommend connecting the fixtures in terms of their proximity to the controller, rather than connecting the lowest fixture number first, and so on.

Step 3: Connect other fixtures in the chain from output to input as above. Place a DMX terminator on the output of the final fixture to ensure best communication.



Fixture Linking (Master/Slave Mode)

1. Connect the (male) 3 pin connector side of the DMX cable to the output (female) 3 pin connector of the first fixture.
2. Connect the end of the cable coming from the first fixture which will have a (female) 3 pin connector to the input connector of the next fixture consisting of a (male) 3 pin connector. Then, proceed to connect from the output as stated above to the input of the following fixture and so on.



A quick note: Often, the setup for Master-Slave and Standalone operation requires that the first fixture in the chain be initialized for this purpose via either settings in the control panel or DIP-switches. Secondarily, the fixtures that follow may also require a slave setting.

Check the "**Operating Adjustments**" section in this manual for complete instructions for this type of setup and configuration.

Mounting & Rigging

This fixture may be mounted in any SAFE position provided there is enough room for ventilation.

It is important never to obstruct the fan or vents pathway. Mount the fixture using a suitable "C" or "O" type clamp. The clamp should be rated to hold at least 10x the fixture's weight to ensure structural stability. Do not mount to surfaces with unknown strength, and ensure properly "rated" rigging is used when mounting fixtures overhead.

Adjust the angle of the fixture by loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

- When selecting installation location, take into consideration lamp replacement access (if applicable) and routine maintenance.
- Safety cables MUST ALWAYS be used.

4. OPERATING ADJUSTMENTS

The Control Panel

All the goodies and different modes possible with the Laser Blade™ G are accessed by using the control panel on the front of the fixture. There are 4 control buttons below the LED display which allow you to navigate through the various control panel menus.

<MENU>

Is used to navigate to the previous higher-level menu item.

<UP>

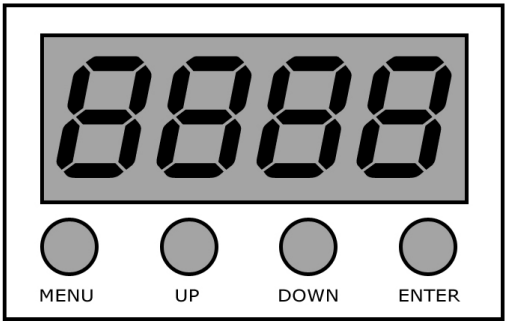
Scrolls through menu items and numbers in ascending order.

<DOWN>

Scrolls through menu items and numbers in descending order.

<ENTER>

Is used to select and confirm/store the current selection.



The Control Panel LED Display shows the menu items you select from the menu map on page #11. When a menu function is selected, the display will show immediately the first available option for the selected menu function. To select a menu item, press **<ENTER>**.

Use the **<UP>** and **<DOWN>** buttons to navigate the menu options. Press the **<ENTER>** button to select the menu function currently displayed, or to enable a menu option. To return to the previous option or menu, press the **<MENU>** button.

Control Panel Menu Structure

Address	**<ENTER>**	To choose a DMX address from 001-512
Work Mode Set	Auto	Auto run mode
	Sound	Sound active mode
	DMX	DMX mode
	Slave	Slave mode
X Mirror Set	Yes/No	X mirror symmetry (reverse) on/off
Y Mirror Set	Yes/No	Y mirror symmetry (reverse) on/off
X Run Set	Run	**<ENTER>**
	Stop	X Position (+/-) 1 **<ENTER>**
Y Run Set	Run	**<ENTER>**
	Stop	X Position (+/-) 1 **<ENTER>**
Graph Mode Set	**<ENTER>**	**<UP/DOWN>** to choose beams/animations
Speed Set	**<ENTER>**	**<UP/DOWN>** to increase/decrease speed

DMX Mode

Allows the unit to be controlled by any universal DMX controller.

Set the Starting DMX Address:

The default mode for the fixture is DMX, so the first menu item that you can edit is the starting DMX address.

1.) Navigate the menu using the **<UP/DOWN>** buttons until you reach **Address**.
2.) Push the **<ENTER>** button.
3.) Use the **<UP/DOWN>** buttons to select a DMX channel from **001-512**.
4.) Press the **<ENTER>** button to confirm.

Working Mode Settings:

Set the fixture to run in DMX, Auto, Sound Active, and Slave Modes

1.) Navigate the menu using the **<UP/DOWN>** buttons until you reach **Work Mode Set**.
2.) Push the **<ENTER>** button.
3.) Use the **<UP/DOWN>** buttons to select either **DMX**, **Auto**, or **Sound**. Then press the **<ENTER>** button to confirm.

Slave Mode

1.) Daisy chain the fixtures DMX in/out. The 1st fixture will be the master fixture.
2.) On fixtures you want to set as slave fixtures, navigate the menu(s) using the **<UP/DOWN>** buttons until you reach **Work Mode Set**.
3.) Push the **<ENTER>** button.
4.) Use the **<UP/DOWN>** buttons to reach **Slave**. Then press **<ENTER>**.

Mirror Symmetry Mode:

Reverse/flip the output of either X, Y, or both.

1.) Navigate the menu using the **<UP/DOWN>** buttons until you reach either **X Mirror Set** or **Y Mirror Set**.
2.) Push the **<ENTER>** button.
3.) Use the **<UP/DOWN>** buttons to select **Yes** to enable, or **No** to disable.
4.) Press the **<ENTER>** button to confirm.

Running Mode Settings:

Fine tune the position of either X, Y, or both.

1.) Navigate the menu using the **<UP/DOWN>** buttons until you reach either **X Run Set** or **Y Run Set**.
2.) Push the **<ENTER>** button.
3.) Use the **<UP/DOWN>** buttons to select **Run** for default, or **Stop** to adjust incremental positioning.
4.) Press the **<ENTER>** button to confirm.

Graphic Mode Settings:

Set the fixture to display graphic beams or animations.

1.) Navigate the menu using the **<UP/DOWN>** buttons until you reach **Graph Mode Set**.
2.) Push the **<ENTER>** button.
3.) Use the **<UP/DOWN>** buttons to select **Beam Show**, or **Animal Show** to adjust incremental positioning.
4.) Press the **<ENTER>** button to confirm.

Speed Settings:

Used to adjust the speed settings.

1.) Navigate the menu using the **<UP/DOWN>** buttons until you reach **Speed Set**.
2.) Push the **<ENTER>** button.
3.) Use the **<UP/DOWN>** buttons to adjust incremental speed settings.
4.) Press the **<ENTER>** button to confirm.

DMX Values In-Depth (19-Channel Mode)

Channel	Value	What It Does
1		**Run Mode**
	000 <--> 063	No function (laser is off)
	064 <--> 127	Sound active mode
	128 <--> 191	Auto mode
	192 <--> 255	DMX mode
2	000 <--> 255	Pan (0 <--> 540°)
3	000 <--> 255	Tilt (0 <--> 270°)
4	000 <--> 255	Vertical Speed (slow <--> fast)
5		**Group 1, Pattern Selection**
	000 <--> 001	No function (laser is off)
	002 <--> 220	133 geometric animations
	221 <--> 227	Screen theme animation
	228 <--> 229	Wedding fly wing to wing animation
	230 <--> 231	Halloween theme animation 1
	232 <--> 233	Halloween theme animation 2
	234 <--> 235	Congratulations theme animation
	236 <--> 237	Christmas theme animation
	238 <--> 239	Happy birthday theme animation
	240 <--> 241	Lightning
	242 <--> 243	Pole dance
	244 <--> 245	Dancing
	246 <--> 247	Musical notes
	248 <--> 249	Fish big splash
	250 <--> 251	Trees
	252 <--> 255	Drum beating
6		**Group 1 On/Off**
	000 <--> 015	Laser off
	016 <--> 255	Laser on
7		**Group 2, Pattern Selection**
	000 <--> 028	No function (laser is off)
	029 <--> 255	76 kinds of beam patterns
8		**Group 2 On/Off**
	000 <--> 015	Laser off
	016 <--> 255	Laser on
9		**Dual Group Animations**
	000 <--> 020	Single animation (group 1)
	021 <--> 041	X mirror symmetry
	042 <--> 062	Y mirror symmetry
	063 <--> 083	X/Y mirror symmetry, simultaneously
	084 <--> 104	Zoom In/Out, mirror symmetry
	105 <--> 125	Group 2 pattern left/right moving, group 1 stationary
	126 <--> 146	Group 2 pattern zoom in/out, group 1 stationary
	147 <--> 167	Group 2 pattern rotate, group 1 stationary
	168 <--> 188	Rotation mirror symmetry
	189 <--> 209	Group 1 no Y moving, group 2 no X moving
	210 <--> 230	Group 1 no X/Y moving, but group 2 X/Y moving
	231 <--> 251	Group 1 no Y dimmer, group 2 no X dimmer
	252 <--> 255	Group 1 no X moving, group 2 no Y moving
10		**Moving X**
	000 <--> 127	Manual to left/right moving
	128 <--> 160	Auto to left moving
	162 <--> 192	Auto to right moving
	193 <--> 224	Auto to left/right moving
	225 <--> 239	Jumping
	240 <--> 247	Rhombus shape moving
	248 <--> 255	Top left/right moving

DMX Values In-Depth (19-Channel Mode), Continued

Channel	Value	What It Does
11		**Moving Y**
	000 <--> 127	Manual to up/down moving
	128 <--> 160	Auto to down moving
	162 <--> 192	Auto to up moving
	193 <--> 224	Auto to up/down moving
	225 <--> 231	Circle shape moving
	232 <--> 239	Sine shape moving
	240 <--> 247	Square shape moving
	248 <--> 255	Bottom corner up/down moving
12		**X-Axis Rotation**
	000 <-> 127	Manual Position
	128 <-> 255	Auto Position Spin
13		**X-Axis Rotation**
	000 <-> 127	Manual Position
	128 <-> 255	Auto Position Spin
14		**Rotation**
	000 <--> 127	Manually rotation
	128 <--> 159	Auto clockwise rotation
	160 <--> 191	Auto counter clockwise rotation
	192 <--> 223	Clock pendulum effect
	224 <--> 255	Ellipse shape rotation
15		**Zoom**
	000 <--> 127	No Function
	128 <--> 159	Manual zoom(+/-)
	160 <--> 191	Auto zoom(+)
	192 <--> 223	Auto zoom(-)
	224 <--> 255	Auto zoom(+/-)
16		**Sine Wave Fluctuation**
	000 <--> 063	No Function
	064 <--> 127	X fluctuation
	128 <--> 191	Y fluctuation
	192 <--> 255	X/Y fluctuation
17		**Fluctuation Speed**
	000 <--> 255	Speed adjustment (slow <-- fast)
18		**Drawing**
	000 <-> 063	Manual Draw
	064 <-> 255	Auto Draw (slow <--> fast)

Troubleshooting

Symptom	Solution
Fixture Auto-Shut Off	Please check the power supply, the input voltage and the fuse.
No Light Output	Check to ensure fixture is operating under correct mode, IE DMX/Etc., if applicable.
No Power	Check fuse, AC cord and circuit for malfunction.
Fixture Not Responding / Responding Erratically	Make sure all connectors are seated properly and securely. Use Only DMX cables and/or check cables for defects. Install a Terminator. Reset fixture(s).

If your problem isn't listed, or if problems persist,
please open a support ticket at www.blizzardlighting.com/support.

5. APPENDIX

A Quick Lesson On DMX

DMX (aka DMX-512) was created in 1986 by the United States Institute for Theatre Technology (USITT) as a standardized method for connecting lighting consoles to lighting dimmer modules. It was revised in 1990 and again in 2000 to allow more flexibility. The Entertainment Services and Technology Association (ESTA) has since assumed control over the DMX512 standard. It has also been approved and recognized for ANSI standard classification.

DMX covers (and is an abbreviation for) Digital MultipleXed signals. It is the most common communications standard used by lighting and related stage equipment.

DMX provides up to 512 control "channels" per data link. Each of these channels was originally intended to control lamp dimmer levels. You can think of it as 512 faders on a lighting console, connected to 512 light bulbs. Each slider's position is sent over the data link as an 8-bit number having a value between 0 and 255. The value 0 corresponds to the light bulb being completely off while 255 corresponds to the light bulb being fully on.

DMX data is transmitted at 250,000 bits per second using the RS-485 transmission standard over two wires. As with microphone cables, a grounded cable shield is used to prevent interference with other signals.

There are five pins on a DMX connector: a wire for ground (cable shield), two wires for "Primary" communication which goes from a DMX source to a DMX receiver, and two wires for a "Secondary" communication which goes from a DMX receiver back to a DMX source. Generally, the "Secondary" channel is not used so data flows only from sources to receivers. Hence, most of us are most familiar with DMX-512 as being employer over typical 3-pin "mic cables," although this does not conform to the defined standard.

DMX is connected using a daisy-chain configuration where the source connects to the input of the first device, the output of the first device connects to the input of the next device, and so on. The standard allows for up to 32 devices on a single DMX link.

Each receiving device typically has a means for setting the "starting channel number" that it will respond to. For example, if two 6-channel fixtures are used, the first fixture might be set to start at channel 1 so it would respond to DMX channels 1 through 6, and the next fixture would be set to start at channel 7 so it would respond to channels 7 through 12.

The greatest strength of the DMX communications protocol is that it is very simple and robust. It involves transmitting a reset condition (indicating the start of a new "packet"), a start code, and up to 512 bytes of data. Data packets are transmitted continuously. As soon as one packet is finished, another can begin with no delay if desired (usually another follows within 1 ms). If nothing is changing (i.e. no lamp levels change) the same data will be sent out over and over again. This is a great feature of DMX -- if for some reason the data is not interpreted the first time around, it will be re-sent shortly.

Not all 512 channels need to be output per packet, and in fact, it is very uncommon to find all 512 used. The fewer channels are used, the higher the "refresh" rate. It is possible to get DMX refreshes at around 1000 times per second if only 24 channels are being transmitted. If all 512 channels are being transmitted, the refresh rate is around 44 times per second.

In summary, since its design and evolution in the 1980's DMX has become the standard for lighting control. It is flexible, robust, and scalable, and its ability to control everything from dimmer packs to moving lights to foggers to lasers makes it an indispensable tool for any lighting designer or lighting performer.

Keeping Your Laser Blade™ G As Good As New

The fixture you've received is a rugged, tough piece of pro lighting equipment, and as long as you take care of it, it will take care of you. That said, like anything, you'll need to take care of it if you want it to operate as designed. You should absolutely keep the fixture clean, especially if you are using it in an environment with a lot of dust, fog, haze, wild animals, wild teenagers or spilled drinks.

Cleaning the optics routinely with a suitable glass cleaner will greatly improve the quality of light output. Keeping the fans free of dust and debris will keep the fixture running cool and prevent damage from overheating.

In transit, keep the fixtures in cases. You wouldn't throw a prized guitar, drumset, or other piece of expensive gear into a gear trailer without a case, and similarly, you shouldn't even think about doing it with your shiny new light fixtures.

Common sense and taking care of your fixtures will be the single biggest thing you can do to keep them running at peak performance and let you worry about designing a great light show, putting on a great concert, or maximizing your client's satisfaction and "wow factor." That's what it's all about, after all!

Returns (Gasp!)

We've taken a lot of precautions to make sure you never even have to worry about sending a defective unit back, or sending a unit in for service. But, like any complex piece of equipment designed and built by humans, once in a while, something doesn't go as planned. If you find yourself with a fixture that isn't behaving like a good little fixture should, you'll need to obtain a Return Authorization (RA).

Don't worry, this is easy. Just go to our website and open a support ticket at www.blizzardlighting.com/support, and we'll issue you an RA. Then, you'll need to send the unit to us using a trackable, pre-paid freight method. We suggest using USPS Priority or UPS. Make sure you carefully pack the fixture for transit, and whenever possible, use the original box & packing for shipping.

When returning your fixture for service, be sure to include the following:

1.) Your contact information (Name, Address, Phone Number, Email address).
2.) The RA# issued to you
3.) A brief description of the problem/symptoms.

We will, at our discretion, repair or replace the fixture. Please remember that any shipping damage which occurs in transit to us is the customer's responsibility, so pack it well!

Shipping Issues

Damage incurred in shipping is the responsibility of the shipper, and must be reported to the carrier immediately upon receipt of the items. Claims must be made within seven (7) days of receipt.

Tech Specs!

Weight & Dimensions	
Length	7.1 inches (180 mm)
Width	5.5 inches (140 mm)
Height	10.6 inches (270 mm)
Weight	6.7 lbs (3 kg)
Power	
Operating Voltage	110-250VAC, 50-60 Hertz
Fuse	2A 250V
Power Consumption	20W
Light Source	
Laser	Fat beam 50mW 532nm green DPSS
Scanner	15kpss high-speed optical scanner
Laser Class	Class 3R
Thermal	
Max. Operating Temp.	104 degrees F (40 degrees C) ambient
Control	
Protocol	USITT DMX-512
DMX Channels	18-channel
Input	3-pin XLR Male
Output	3-pin XLR Female
Other Operating Modes	Sound Active, Auto-Beam, Auto-Animation, DMX512, Master/Slave
Other Information	
Frowny wink wins for most confusing emoji ;(	
Warranty	2-year limited warranty

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Enjoy your product!
Our sincerest thanks for your purchase!
--The team @ Blizzard Lighting