

# **BLADE** RGBW **™ RUNNER**



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# 1. GETTING STARTED

## What's In The Box?

- 1 x BladeRunner™ Moving Head Fixture
- 2 x Omega 1/4 Turn Mounting Brackets
- 1 x Stand Mounting Bracket
- An Ever-So-Handy Power Cord
- This Lovely User Manual

## Getting It Out Of The Box

Congratulations! You have just purchased a totally unique, stunning quad-beam RGBW moving head fixture that's guaranteed to turn heads anywhere it goes (and tilt them too)! So now that you're the proud owner of a BladeRunner™ (or hopefully, BLADERUNNERS!), 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 is wrong, just give us a call or send an email. We'll be happy to help, honest.**

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Author:	Date:	Last Edited:	Date:
J. Thomas	4/4/2014	J. Thomas	4/17/2014

# SAFETY INSTRUCTIONS



Please read these instructions carefully. They include important information about the installation, usage and maintenance of this product.

- Please keep this User Guide for future use. If you sell the unit to someone else, be sure that they also receive this User Guide.
- ALWAYS make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- This product is intended for indoor use only.
- To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- ALWAYS disconnect from the power source before servicing or replacing fuse and be sure to replace with same fuse size and type.
- ALWAYS secure fixture using a safety chain. NEVER carry the fixture by its cord. Use its carrying handles.
- DO NOT operate at ambient temperatures higher than 104°F (40°C).
- In the event of a serious operating problem, stop using the unit immediately. NEVER try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- NEVER connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

**Caution!** There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact Blizzard Lighting at [support@blizzardlighting.com](mailto:support@blizzardlighting.com).

## 2. MEET THE BLADERUNNER™ RGBW

### MAIN FEATURES:

- 4x moving heads, each with 1x CREE® 10w R/G/B/W 4-in-1 LED
- Blazing fast 540° pan and 240° tilt
- User selectable 14 or 32 DMX channels
- Full RGBW color in standalone & DMX mode
- Narrow 2 degree beam angle
- Outstanding quad beam effects
- Built-in sound active programs
- Built-in automated programs via master/slave
- Built-in sound activated programs via master/slave
- 3-pin male input and 3-pin female output
- PowerCon™ compatible AC power In/Out connectors

### CONTROL:

- USITT DMX-512 (14/32 Channels)
- 3-pin Input/Output
- 4-button menu with LCD display

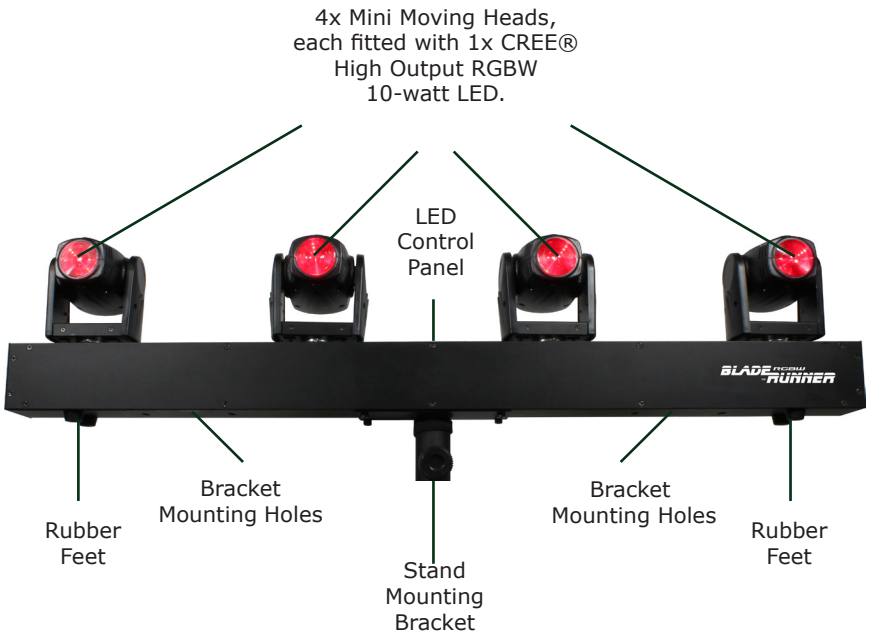
### DMX Quick Reference (14-Channel Mode)

Channel	What is does
1	Dimmer (0% <--> 100%)
2	Strobe (slow <--> fast)
3	Red Intensity (0% <--> 100%)
4	Green Intensity (0% <--> 100%)
5	Blue Intensity (0% <--> 100%)
6	White Intensity (0% <--> 100%)
7	Static Colors + Color Snap/Fade
8	Built-in Programs + Sound Active
9	Built-in Program Speed (slow <--> fast)
10	Global Pan
11	Global Tilt
12	Pan Speed (fast <--> slow)
13	Tilt Speed (fast <--> slow)
14	Motor Reset (246-255)

## DMX Quick Reference (32-Channel Mode)

Channel	What it does
1	Dimmer (0% <--> 100%)
2	Strobe (slow <--> fast)
3	1st Head Red Intensity (0% <--> 100%)
4	1st Head Green Intensity (0% <--> 100%)
5	1st Head Blue Intensity (0% <--> 100%)
6	1st Head White Intensity (0% <--> 100%)
7	2nd Head Red Intensity (0% <--> 100%)
8	2nd Head Green Intensity (0% <--> 100%)
9	2nd Head Blue Intensity (0% <--> 100%)
10	2nd Head White Intensity (0% <--> 100%)
11	3rd Head Red Intensity (0% <--> 100%)
12	3rd Head Green Intensity (0% <--> 100%)
13	3rd Head Blue Intensity (0% <--> 100%)
14	3rd Head White Intensity (0% <--> 100%)
15	4th Head Red Intensity (0% <--> 100%)
16	4th Head Green Intensity (0% <--> 100%)
17	4th Head Blue Intensity (0% <--> 100%)
18	4th Head White Intensity (0% <--> 100%)
19	Static Colors + Color Snap/Fade
20	Built-in Programs + Sound Active
21	Built-in Program Speed (slow <--> fast)
22	1st Head Pan Motor
23	1st Head Tilt Motor
24	2nd Head Pan Motor
25	2nd Head Tilt Motor
26	3rd Head Pan Motor
27	3rd Head Tilt Motor
28	4th Head Pan Motor
29	4th Head Tilt Motor
30	Pan Speed (0% <--> 100%)
31	Tilt Speed (0% <--> 100%)
32	Motor Reset (246-255)

**Figure 1: The BladeRunner™ RGBW 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

**CAUTION!** The BladeRunner™ RGBW utilizes a high-output switch-mode power supply with an internal fuse. Under normal operating conditions, the fuse should not require replacement. The fuse is field replaceable, however it is an advanced procedure suited to qualified individuals. Should your BladeRunner™ RGBW fuse require replacement, please contact Blizzard Lighting for instructions, or to return your unit for service.

#### Connecting A Bunch of BladeRunner™ RGBW 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.

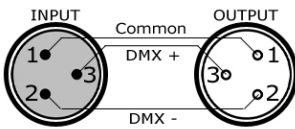
For instance, Belden© 9841 meets the specifications for EIA RS-485 applications. Standard microphone cables will "probably" be OK, but note that they cannot transmit DMX data as reliably over long distances. In any event, the cable should have the following characteristics:

*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*



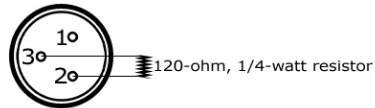
## Cable Connectors

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:

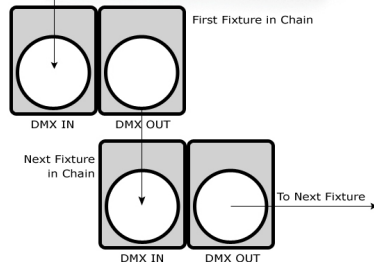
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
DMX Data (-)	Pin 2	Pin 2
DMX Data (+)	Pin 3	Pin 3
Not Used.	No Connection.	No Connection.
Not Used.	No Connection.	No Connection.

## 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.

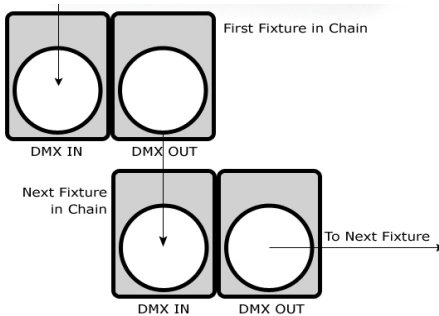


**Step 3:** Connect other fixtures in the chain from output to input as above. Place a DMX terminator on the output of the final fixture to ensure best communication.

## 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. Secondly, 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.
- Never mount in places where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.

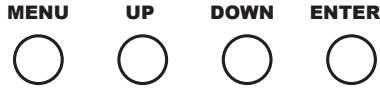
## Lighting Stand Mounting

This fixture comes with an easy to use stand mounting bracket. Please make sure the lighting stand you use is rated to safely hold the weight of this unit and do not over-extend the lighting stand. For the safety of yourself, your audience, and the fixture... always take advantage of the use of the stand’s safety pins!

# 4. OPERATING ADJUSTMENTS

## The Control Panel

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



## Main Menu

To navigate through the LCD control panel main menu, use the **<MENU>** button to scroll through the various top level menu options. Then to scroll through sub-menu options, use the **<UP/DOWN>** buttons. Push the **<ENTER>** button to save any changes made.

## Control Panel Menu Structure

Address	→	001-512	DMX Address
CHND	→	14CH	14 Channel DMX Mode
	→	32CH	32 Channel DMX Mode
AUTO	→	STOP/RUN	Auto Mode (slower color changing)
AUTO1	→	STOP/RUN	Auto Mode (faster color changing)
AUDIO	→	STOP/RUN	Sound Active Mode
COLOR	→	Red1	Head 1 - Red (0-255)
	→	Green 1	Head 1 - Green (0-255)
	→	Blue 1	Head 1 - Blue (0-255)
	→	White 1	Head 1 - White (0-255)
	→	Red 2	Head 2 - Red (0-255)
	→	Green 2	Head 2 - Green (0-255)
	→	Blue 2	Head 2 - Blue (0-255)
	→	White 2	Head 2 - White (0-255)
	→	Red 3	Head 3 - Red (0-255)
	→	Green 3	Head 3 - Green (0-255)
	→	Blue 3	Head 3 - Blue (0-255)
	→	White 3	Head 3 - White (0-255)
	→	Red 4	Head 4 - Red (0-255)
	→	Green 4	Head 4 - Green (0-255)
	→	Blue 4	Head 4 - Blue (0-255)
	→	White 4	Head 4 - White (0-255)
	→	Shut	Strobe Rate (0-255)
PROGRAM	→	01-20	Built-in Programs
PRO-Movement	→	ON/OFF	Auto Movement On/Off
SPEED	→	<ENTER>	Speed Settings
	→	Movement	Movement Speed (001-255)
	→	Color	Color Speed (001-255)
LED	→	ON/OFF	LCD Backlight On/Off
VERSION	→	V1.0.0	Firmware Version
RESET	→	Yes?	Fixture Reset

## DMX Mode

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

### Set The DMX Starting Address

To assign a DMX starting address to the fixture, use the **<MENU>** button to scroll to **Address**, then use the **<UP/DOWN>** buttons to display any value within the range of **001-512**. Then push the **<ENTER>** button to confirm your choice.

### DMX Mode Selection

To use the fixture in either of its two DMX channel mode configurations, use the **<MENU>** button to scroll to **CHND**, then use the **<UP/DOWN>** buttons to display either **14CH or 32CH**. Then push the **<ENTER>** button to confirm your choice.

### Slave Mode

- 1.) Disconnect fixture(s) from any DMX signal source.
- 2.) Set each fixture to matching DMX modes (**14CH or 32CH**).
- 3.) Connect all fixtures together via DMX. The first fixture in the DMX chain will be the master fixture, followed by the slave fixtures.
- 4.) Connect DMX controller to the master unit for DMX control.

## Stand-Alone, Master/Slave, Sound Active Modes:

*Allows a single or Master/Slaved units to run factory installed programs at user selectable speeds.*

### PRO-Movement

*This allows you to enable/disable auto movement of the heads in Program Mode or within Manual Color Adjustments. This will not effect movement in Auto or DMX modes.*

- 1.) Use the **<MENU>** button to scroll to **PRO-Movement**, then use the **<UP/DOWN>** buttons to display either **ON or OFF**. Then push the **<ENTER>** button to confirm your choice.

### Speed Settings

*This allows you to adjust the speed of the moving heads and color macros in Program Mode, Auto Mode or within Manual Color mixing. This will not effect speed in DMX mode.*

- 1.) Use the **<MENU>** button to scroll to **SPEED**, then use the **<UP/DOWN>** buttons to display either **Movement or Color**, then push the **<ENTER>** button. You can now adjust the speed settings from **001-255** (slow <--> fast).

### Auto Mode

To run the fixture in auto mode, use the **<MENU>** button to scroll to **AUTO or AUTO 1**, then push the **<ENTER>** button to confirm. You then adjust the movement and color macro speed settings of the auto mode program (*see Speed Settings*).

### Sound Active Mode

To run the fixture in sound active mode, use the **<MENU>** button to scroll to **AUDIO**, then push the **<ENTER>** button to confirm.

## Manual Color Adjustment

*Allows the user to adjust the color balance of each individual moving head fixture. You can set your own intensity levels and then add PRO-Movement if you like! (See p. 12).*

- 1.) Use the **<MENU>** button to scroll to **COLOR**, then use the **<UP/DOWN>** buttons to display any of Red, Green, Blue, or White settings for fixtures 1, 2, 3, and 4. Push the **<ENTER>** button while highlighting any to display the color intensity range settings from **000-255**. Use the **<UP/DOWN>** buttons to adjust the intensity, then push **<ENTER>** to confirm your choice.
- 2.) The last option in the **COLOR** submenu is **Shut** (strobe). Using the same steps as above, you can adjust the strobe rate values from **000-255** (slow <--> fast).

## Program Mode

*Allows a single unit to display a variety of colors and programs without a DMX controller.*

- 1.) Use the **<MENU>** button to scroll to **PROGRAM**, then use the **<UP/DOWN>** buttons to display the built-in program number from **01-20**. Push the **<ENTER>** to confirm your choice. If you wish, you can then also enable/disable PRO-Movement, or adjust the Speed Settings of the Movement or Color Macros. (See p. 12)

## LCD Display

To turn on/off the backlit LCD display, use the **<MENU>** button to scroll to **LED**, then push **<ENTER>**. Then use the **<UP/DOWN>** buttons to scroll to either **ON** or **OFF**, and push **<ENTER>** button to confirm your choice. **ON** will leave the display illuminated constantly, and **OFF** will turn the display off after 40 seconds of idle.

## Version

This menu option simply displays the fixtures installed firmware version number.

## Reset

To automatically reset the motors to automatically realign the moving head positions, use the **<MENU>** button to scroll to **RESET**, then push **<ENTER>**.

## DMX Values In-Depth (14-Channel Mode)

Channel	Value	What It Does
1	000 <--> 255	Dimmer (0% <--> 100%)
2	000 <--> 255	Strobe (Slow <--> Fast)
3	000 <--> 255	Red Intensity (0% <--> 100%)
4	000 <--> 255	Green Intensity (0% <--> 100%)
5	000 <--> 255	Blue Intensity (0% <--> 100%)
6	000 <--> 255	White Intensity (0% <--> 100%)
7	000 <--> 028	<b>Static Colors + Color Snap/Fade</b> Red
	029 <--> 057	Green
	058 <--> 086	Blue
	087 <--> 115	White
	116 <--> 144	Red+Green
	145 <--> 173	Green+Blue
	174 <--> 202	Red+Blue
	203 <--> 204	Red+Green+Blue+White
	205 <--> 229	Color Snap
	230 <--> 255	Color Fade
8	000 <--> 012	<b>Built-In Programs + Sound Active</b> Red
	013 <--> 025	Green
	026 <--> 038	Blue
	039 <--> 051	White
	052 <--> 064	Red+Green
	065 <--> 077	Green+Blue
	078 <--> 091	Red+Blue
	092 <--> 103	Red+Green+Blue+White
	104 <--> 116	Color Snap
	117 <--> 129	Color Fade
	130 <--> 142	Red+Green+Blue+White+Strobe (slow)
	143 <--> 155	Red+Green+Blue+White+Strobe (fast)
	156 <--> 168	Red Chase (1 head on, back and fourth)
	169 <--> 181	R/G/B/W Chase (1 head on, left to right)
	182 <--> 194	R/G/B/W Chase (1 head on, back and fourth)
	195 <--> 207	Green Chase (1 head on, left to right)
	208 <--> 220	Green Chase (1 head on, back and fourth)
	221 <--> 233	R/G/B/W Color Chase, Head 1+2   3+4 (all on)
	234 <--> 246	R/G/B/W Color Chase, Head 1+3   2+4 (all on)
247 <--> 250	R/G/B/W Color Chase (all on)	
251 <--> 255	Sound Active Mode	
9	000 <--> 255	Color Macro Speed (0% <--> 100%)
10	000 <--> 255	Pan
11	000 <--> 255	Tilt
12	000 <--> 255	Pan Speed (fast <--> slow)
13	000 <--> 255	Tilt Speed (fast <--> slow)
14	000 <--> 245	No Function
	246 <--> 255	Reset Motors

## DMX Values In-Depth (32-Channel Mode)

Channel	Value	What It Does
1	000 <--> 255	Dimmer (0% <--> 100%)
2	000 <--> 255	Strobe (Slow <--> Fast)
3	000 <--> 255	1st Head - Red Intensity (0% <--> 100%)
4	000 <--> 255	1st Head - Green Intensity (0% <--> 100%)
5	000 <--> 255	1st Head - Blue Intensity (0% <--> 100%)
6	000 <--> 255	1st Head - White Intensity (0% <--> 100%)

## DMX Values In-Depth (32-Channel Mode, continued)

Channel	Value	What It Does
7	000 <--> 255	2nd Head - Red Intensity (0% <--> 100%)
8	000 <--> 255	2nd Head - Green Intensity (0% <--> 100%)
9	000 <--> 255	2nd Head - Blue Intensity (0% <--> 100%)
10	000 <--> 255	2nd Head - White Intensity (0% <--> 100%)
11	000 <--> 255	3rd Head - Red Intensity (0% <--> 100%)
12	000 <--> 255	3rd Head - Green Intensity (0% <--> 100%)
13	000 <--> 255	3rd Head - Blue Intensity (0% <--> 100%)
14	000 <--> 255	3rd Head - White Intensity (0% <--> 100%)
15	000 <--> 255	4th Head - Red Intensity (0% <--> 100%)
16	000 <--> 255	4th Head - Green Intensity (0% <--> 100%)
17	000 <--> 255	4th Head - Blue Intensity (0% <--> 100%)
18	000 <--> 255	4th Head - White Intensity (0% <--> 100%)
19		<b>Static Colors + Color Snap/Fade</b>
	000 <--> 028	Red
	029 <--> 057	Green
	058 <--> 086	Blue
	087 <--> 115	White
	116 <--> 144	Red+Green
	145 <--> 173	Green+Blue
	174 <--> 202	Red+Blue
	203 <--> 204	Red+Green+Blue+White
205 <--> 229	Color Snap	
230 <--> 255	Color Fade	
20		<b>Built-In Programs + Sound Active</b>
	000 <--> 012	Red
	013 <--> 025	Green
	026 <--> 038	Blue
	039 <--> 051	White
	052 <--> 064	Red+Green
	065 <--> 077	Green+Blue
	078 <--> 091	Red+Blue
	092 <--> 103	Red+Green+Blue+White
	104 <--> 116	Color Snap
	117 <--> 129	Color Fade
	130 <--> 142	Red+Green+Blue+White+Strobe (slow)
	143 <--> 155	Red+Green+Blue+White+Strobe (fast)
	156 <--> 168	Red Chase (1 head on, back and fourth)
	169 <--> 181	R/G/B/W Chase (1 head on, left to right)
	182 <--> 194	R/G/B/W Chase (1 head on, back and fourth)
	195 <--> 207	Green Chase (1 head on, left to right)
208 <--> 220	Green Chase (1 head on, back and fourth)	
221 <--> 233	R/G/B/W Color Chase, Head 1+2   3+4 (all on)	
234 <--> 246	R/G/B/W Color Chase, Head 1+3   2+4 (all on)	
247 <--> 250	R/G/B/W Color Chase (all on)	
251 <--> 255	Sound Active Mode	
21	000 <--> 255	Color Macro Speed (0% <--> 100%)
22	000 <--> 255	1st Head - Pan
23	000 <--> 255	1st Head - Tilt
24	000 <--> 255	2nd Head - Pan
25	000 <--> 255	2nd Head - Tilt
26	000 <--> 255	3rd Head - Pan
27	000 <--> 255	3rd Head - Tilt
28	000 <--> 255	4th Head - Pan
29	000 <--> 255	4th Head - Tilt
30	000 <--> 255	Pan Speed (fast <--> slow)
31	000 <--> 255	Tilt Speed (fast <--> slow)
32	000 <--> 245	No Function
	246 <--> 255	Reset Motors

# 5. APPENDIX

## A Quick Lesson On DMX

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.

## Troubleshooting

Symptom	Solution
Fixture Auto-Shut Off	Check the fan in the fixture. If it is stopped or moving slower than normal, the unit may have shut itself off due to high heat. This is to protect the fixture from overheating. Clear the fan of obstructions, or return the unit for service.
Beam is Dim	Check optical system and clean excess dust/grime. Also ensure that the 220V/110V switch is in the correct position, if applicable.
No Light Output	Check to ensure fixture is operating under correct mode, IE sound active/auto/DMX/Etc., if applicable. Contact service for more information.
Chase Speed Too Fast/Slow	Check to ensure proper setup of speed adjustment.
No Power	Check fuse, AC cord and circuit for malfunction.
No Response to Audio	Verify that the fixture is in "Sound Active" mode. Adjust Audio Sensitivity, If Applicable.
Fixture Not Responding / Responding Erratically	Make sure all connectors are seated properly and securely. Use Only DMX Cables. Install a Terminator. Check all cables for defects. Reset fixture(s).



## Keeping Your BladeRunner™ RGBW 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 send an email to [support@blizzardlighting.com](mailto:support@blizzardlighting.com), 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!

<b>Weight &amp; Dimensions</b>	
Length	40.5 inches (102.9 cm)
Height	8.25 inches (21 cm)
Depth	Base: 3.27" (8.3 cm), Head: 5" (12.7 cm)
Weight	22.1 lbs (10 kg)
<b>Power</b>	
Operating Voltage	AC 110-240VAC, 50-60 Hertz
Power Consumption	77w, 1.13A
Power Factor	.6
<b>Light Source</b>	
LED	4* 10-watt R/G/B/W CREE® LEDs
<b>Optical</b>	
Beam Angle	2 degree
<b>Thermal</b>	
Max. Operating Temp.	104 degrees F (40 degrees C) ambient
<b>Control</b>	
Protocol	USITT DMX-512
DMX Channels	14 or 32 Channels
Input	3-pin XLR Male
Output	3-pin XLR Female
Other Operating Modes	Standalone, Master/Slave, Auto, Sound Active
<b>Other Information</b>	
If you have a pear shaped body, you should not wear pear colored clothes, or act juicy.	
<b>Warranty</b>	2-year limited warranty, does not cover malfunction caused by damage to LED's.

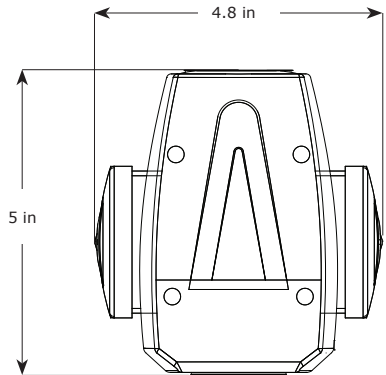
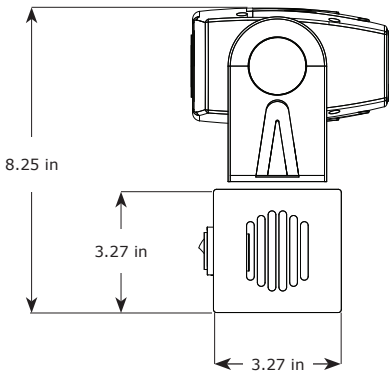
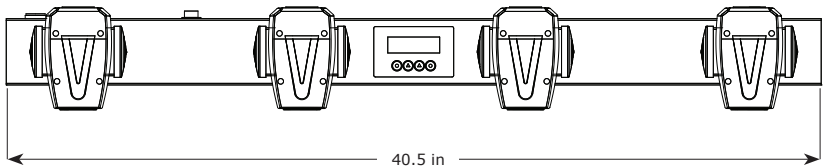
### DISCLAIMER:

The power connector fitted to the fixture and fixture cord are designed for compatibility with products manufactured by Neutrik AG, Neutrik USA and their related entities, however they are not manufactured by, affiliated with or endorsed by Neutrik AG, Neutrik USA, or any related entity. Neutrik® and powerCON® are registered trademarks of Neutrik AG.

## Luminous Intensity

Lux/Meter	1 Meter	2 Meter
Red	10,270 Lux	3,460 Lux
Green	13,590 Lux	4,700 Lux
Blue	15,560 Lux	6,050 Lux
White	21,000 Lux	6,700 Lux

## Dimensional Drawings





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