WEATHER SYSTEM™

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1. GETTING STARTED

What's In The Box?

- 1 x Weather System™ 8 Fixture LED Bar
- 1 x Foot Switch Controller
- 1 x Tripod Lighting Stand
- 1 x Carrying Case
- This Lovely User Manual

Getting It Out Of The Box

Congratulations on purchasing one of the coolest LED lighting systems anywhere! Now that you're the proud owner of a Weather System™ (or hopefully, MORE!), 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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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.

2. MEET THE WEATHER SYSTEM™

MAIN FEATURES:

- User selectable 7 or 26 DMX channels
- 8 fixtures, each fitted with 3 Tri-Color RGB LED's
- Independent fixture swivel & tilt positioning
- Full color mixing in standalone, master/slave and DMX modes
- Built-in automated programs via master/slave
- Built-in sound activated programs via master/slave
- Easy to use LED digital control panel
- 3-pin male input and 3-pin female output
- Adjustable stand, dual hanging brackets, & carrying case
- Heavy duty, black aluminum housing

OPTICAL:

- Beam Angle: 25°
- Light Source: 24* 3-watt Tri-Color LEDs, 100,000 hours

CONTROL:

- USITT DMX-512 (26/7 Channels)
- Four petal foot switch
- 3-pin Input/Output
- LED 4-button control panel

DMX Quick Reference (26-Channel Mode)

Channel	Channel
1	Dimmer
2-25	Individual Fixture R/G/B Intensity
26	Strobe

DMX Quick Reference (7-Channel Mode)

Channel	Channel
1	Dimmer
2	Global Red Intensity
3	Global Green Intensity
4	Global Blue Intensity
5	Built-in Programs + Sound Active
6	Speed + Mic Sensitivity
7	Strobe

Figure 1: The Weather System™ Pin-Up Picture

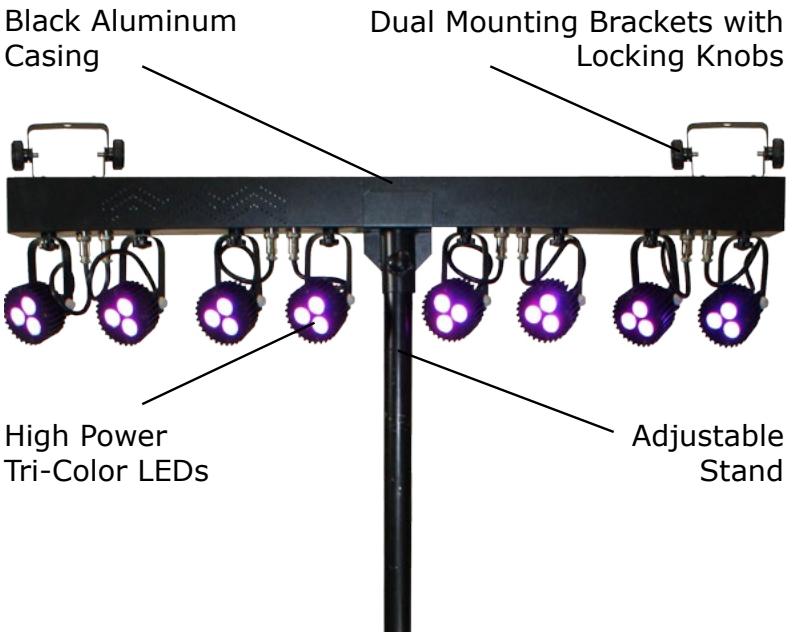
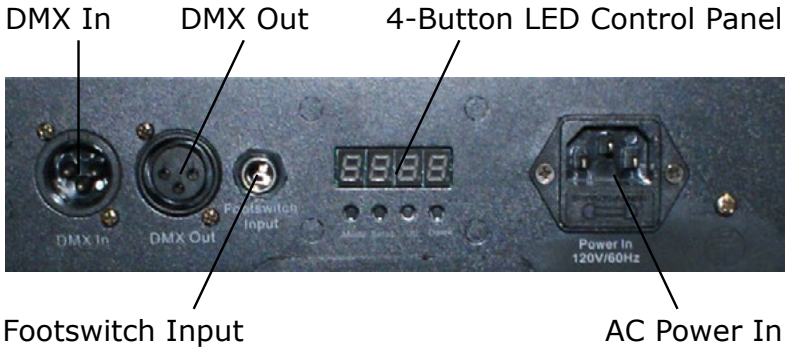
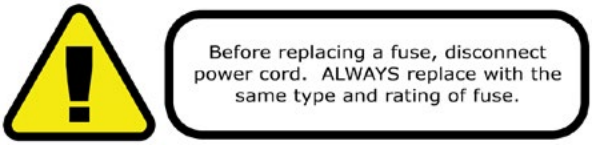


Figure 2: The Rear Connections



3. SETUP



Fuse Replacement

CAUTION! The Weather System™ 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 Weather System™ fuse require replacement, please contact Blizzard Lighting for instructions, or to return your unit for service.

Connecting A Bunch of Weather System™ 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

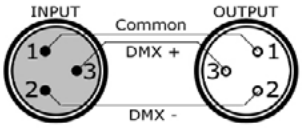
To link fixtures together you'll need data cables. You should use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

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

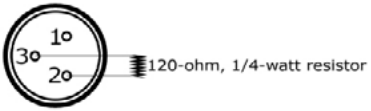
Cable Connectors

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:

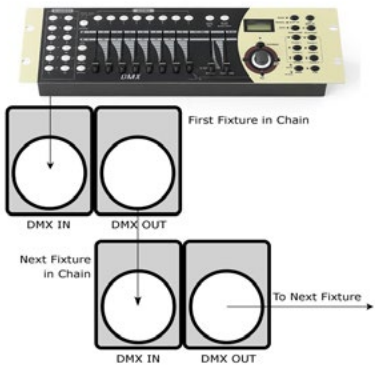
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
DMX Data (-)	Pin 2	Pin 2
DMX Data (+)	Pin 3	Pin 3
Not Used.	No Connection.	No Connection.
Not Used.	No Connection.	No Connection.

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.

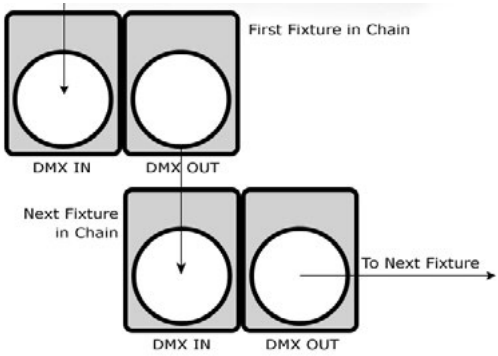
Step 2: Connect the female connector of the DMX cable to the first fixture's male connector (input). *Note:* It doesn't matter which fixture address is the first one connected. We recommend connecting the fixtures in terms of their proximity to the controller, rather than connecting the lowest fixture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

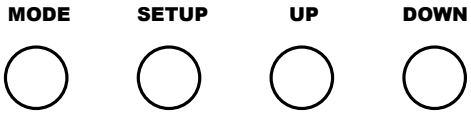
Adjust the angle of the fixture by loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

- When selecting installation location, take into consideration lamp replacement access (if applicable) and routine maintenance.
- Safety cables MUST ALWAYS be used.
- Never mount in places where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.

4. OPERATING ADJUSTMENTS

The Control Panel

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



<MODE>

Is used to navigate the various modes.

<SETUP>

Is used to enter into the selected mode setup.

<UP>

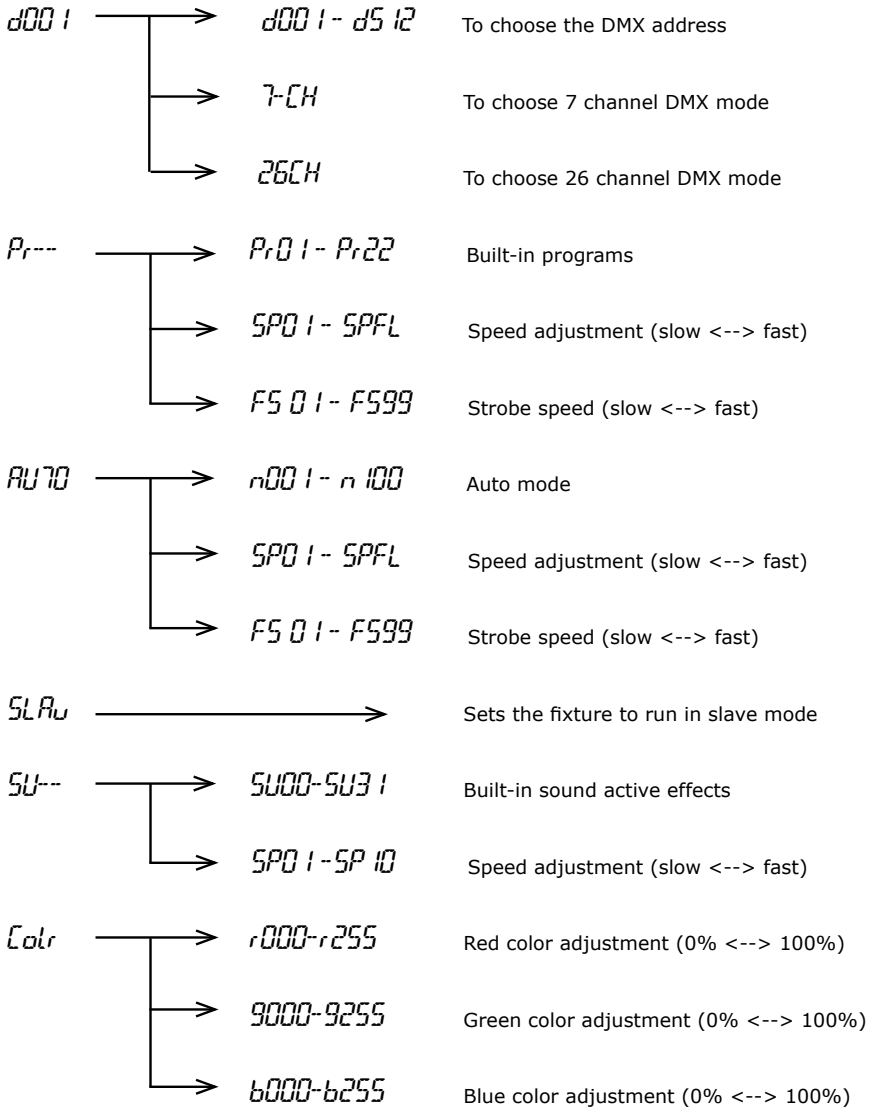
Scrolls through menu items and numbers in ascending order.

<DOWN>

Scrolls through menu items and numbers in descending order.

The Control Panel LED Display shows the menu items listed on the **Control Panel Menu Structure** on page 11. Use the **<MODE>** button to navigate your choices. To edit a setting, push the **<SETUP>** button, then use the **<UP>** and **<DOWN>** buttons again to scroll through your options.

Control Panel Menu Structure



DMX Mode

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

1.) The default mode for the fixture is DMX, which appears as d001 on the LED Readout. To select a different DMX address, hit the **<SETUP>** button and use the **<UP/DOWN>** buttons to select the your desired starting DMX address, then hit **<SETUP>** again to confirm your choice.

Auto, Master/Slave, Sound Active Modes:

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

1.) To use the fixture in 7 channel or 26 channel mode, use the **<MENU>** button to scroll to d001 and hit the **<SETUP>** button. Push the **<SETUP>** button again and scroll to either 7-CH or 26CH.

2.) To set the fixture in automatic mode, use the **<MODE>** button to scroll to AUTO and hit **<SETUP>.** Use the **<UP/DOWN>** buttons to scroll through the auto programs n001-n100 and push the **<SETUP>** button to confirm your choice. Then you can adjust the chase speed. Use the **<UP/DOWN>** buttons to adjust the chase speed setting from SP01- SPFL (slow <--> fast), and push the **<SETUP>** button. Now you can adjust the strobe speed by selecting the speed adjustment settings of FS01- FS99 (slow <--> fast).

3.) To set the fixture to run one of its 22 built-in chase patterns, use the **<MODE>** button to scroll to Pr--, and hit **<SETUP>.** Use the **<UP/DOWN>** buttons to scroll through auto program choices of Pr01-Pr22 and push the **<SETUP>** button to confirm your choice. Then you can adjust the chase speed of the program by using the **<UP/DOWN>** buttons and choose from SP01 - SPFL (slow <--> fast), and push the **<SETUP>** button. Now you can adjust the strobe speed by selecting the strobe speed adjustment settings of FS01- FS99 (slow <--> fast).

4.) To use the fixture as a slave unit, use the **<MODE>** button to scroll to SLAv and hit the **<SETUP>** button. Your fixture will then be in slave mode.

Sound Active Mode:

1.) To use this fixture in sound active mode, scroll to SU-- using the **<MODE>** button, and hit **<SETUP>**. Then using the **<UP/DOWN>** buttons, choose the built-in sound active chase pattern from SU01- SU31 and hit **<SETUP>**. You can then adjust the chase speed by using the **<UP/DOWN>** buttons to adjust the speed from SP01- SP10 (slow <--> fast).

Manual Color Adjustment:

Allows the user to adjust the color balance of the fixture. These settings are global, they will effect all modes.

1.) Use the **<MODE>** button to navigate to Colr and hit the **<SETUP>** button.

2.) From here, you can navigate to r255, g255, or b255 and use the **<UP/DOWN>** buttons to adjust the global intensity of red, green, or blue from 000 - 255.

The Weather System™ Foot Switch Controller

Pedal 1 - Auto Run

When you step on pedal 1 on the foot controller, it will set your fixtures to run in auto mode. The auto mode settings are adjustable from the LED control panel menu.

Pedal 2 - Sound Active

When you step on pedal 2 on the foot controller, it will set your fixtures to run in sound active mode. The sound active mode settings are adjustable from the LED control panel menu.

Pedal 3 - Freeze

When you step on pedal 3 on the foot controller, it will freeze/suspend the currently running program. Step on pedal 3 again, and the Weather System™ will continue running the suspended program.

Pedal 4 - Blackout

When you step on pedal 4 on the foot controller, it will blackout the currently running program. Step on pedal 4 again, and the Weather System™ will continue running the program where it left off.

*Note: The LED display of the Weather System™ will automatically turn off after 20 seconds of inactivity. Pushing any pedal on the foot controller while the LED display is turned off will turn the display back on again.

DMX Values In-Depth (26-Channel Mode)

Channel	Value	What It Does
1	000 <--> 255	Dimmer (0% <--> 100%)
2	000 <--> 255	Fixture 1 Red Intensity (0% <--> 100%)
3	000 <--> 255	Fixture 1 Green Intensity (0% <--> 100%)
4	000 <--> 255	Fixture 1 Blue Intensity (0% <--> 100%)
5	000 <--> 255	Fixture 2 Red Intensity (0% <--> 100%)
6	000 <--> 255	Fixture 2 Green Intensity (0% <--> 100%)
7	000 <--> 255	Fixture 2 Blue Intensity (0% <--> 100%)
8	000 <--> 255	Fixture 3 Red Intensity (0% <--> 100%)
9	000 <--> 255	Fixture 3 Green Intensity (0% <--> 100%)
10	000 <--> 255	Fixture 3 Blue Intensity (0% <--> 100%)
11	000 <--> 255	Fixture 4 Red Intensity (0% <--> 100%)
12	000 <--> 255	Fixture 4 Green Intensity (0% <--> 100%)
13	000 <--> 255	Fixture 4 Blue Intensity (0% <--> 100%)
14	000 <--> 255	Fixture 5 Red Intensity (0% <--> 100%)
15	000 <--> 255	Fixture 5 Green Intensity (0% <--> 100%)
16	000 <--> 255	Fixture 5 Blue Intensity (0% <--> 100%)
17	000 <--> 255	Fixture 6 Red Intensity (0% <--> 100%)
18	000 <--> 255	Fixture 6 Green Intensity (0% <--> 100%)
19	000 <--> 255	Fixture 6 Blue Intensity (0% <--> 100%)
20	000 <--> 255	Fixture 7 Red Intensity (0% <--> 100%)
21	000 <--> 255	Fixture 7 Green Intensity (0% <--> 100%)
22	000 <--> 255	Fixture 7 Blue Intensity (0% <--> 100%)
23	000 <--> 255	Fixture 8 Red Intensity (0% <--> 100%)
24	000 <--> 255	Fixture 8 Green Intensity (0% <--> 100%)
25	000 <--> 255	Fixture 8 Blue Intensity (0% <--> 100%)
26	000 <--> 009 010 <--> 255	No Function Strobe (Slow <--> Fast)

DMX Values In-Depth (7-Channel Mode)

Channel	Value	What It Does	
1	000 <--> 255	Dimmer (0% <--> 100%)	
2	000 <--> 255	Global Red Intensity	
3	000 <--> 255	Global Green Intensity	
4	000 <--> 255	Global Blue Intensity	
5	000 <--> 007 008 <--> 015 016 <--> 023 024 <--> 031 032 <--> 039 040 <--> 047 048 <--> 055 056 <--> 063 064 <--> 071 072 <--> 079 080 <--> 087 088 <--> 095 096 <--> 103 104 <--> 111 112 <--> 119 120 <--> 127 128 <--> 135 136 <--> 143 144 <--> 151 152 <--> 159 160 <--> 167 168 <--> 175 176 <--> 183 184 <--> 191 192 <--> 199 200 <--> 207 208 <--> 215 216 <--> 223 224 <--> 231 232 <--> 255	No Function Red Yellow Green Cyan Blue Purple White Program 1 Program 2 Program 3 Program 4 Program 5 Program 6 Program 7 Program 8 Program 9 Program 10 Program 11 Program 12 Program 13 Program 14 Program 15 Program 16 Program 17 Program 18 Program 19 Program 20 Program 21 Sound Active (Ch. 6 controls mic sensitivity)	
6	 000 <--> 063 064 <--> 255	 No Function Speed (Slow <--> Fast)	Mic sensitivity in sound active mode (000 <--> 255)
7	000 <--> 009 010 <--> 255	No Function Strobe (Slow <--> Fast)	

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 Weather System™ 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, 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	Main Unit: 2.25”(6 cm), Foot Controller: 6 inches (15 cm), Power Cord: 16 ft (5 meters)
Width	Main Unit: 35.5”(90 cm), Foot Controller: 19.5 inches (50 cm)
Height	Main Unit w/bracket: 10.25 inches (26 cm), Foot Controller: 2⅛ inches (5.5 cm)
Weight	Main Unit: 11.6 lbs (5.25 kg), Foot Controller: 3.6 lbs (1.65 kg), Stand: 5.5 lbs (2.3 kg)
Power	
Operating Voltage	AC 120VAC, 60 Hertz
Power Consumption	87W, 1.1A (full white)
Fuse	2A
Power Factor	.67
Light Source	
LED	24* 3-watt Tri-Color LEDs, 100,000 hours
Optical	
Beam Angle	25 degree optics standard
Thermal	
Max. Operating Temp.	104 degrees F (40 degrees C) ambient
Stand	
Max. Safe Operating Height	6 feet
Control	
Protocol	USITT DMX-512
DMX Channels	7 or 26 Channels
Input	3-pin XLR Male
Output	3-pin XLR Female
Other Operating Modes	Standalone, Master/Slave, Sound Active, Color Preset
Forecast	
Extremely Cool	
Warranty	2-year limited warranty, does not cover malfunction caused by damage to LED’s.

Luminous Intensity

	Single Pod Fixture		**All Pod Fixtures**	
Lux/Meter	1 Meter	2 Meter	1 Meter	2 Meter
Red	850	210	2,230	810
Green	640	160	2,020	720
Blue	780	190	2,430	840
All (White)	2,1490	490	6,600	2,300

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