

KRYO.MIX

CMY



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1. GETTING STARTED

What's In The Box?

- 1 x Kryo.Mix™ CMY
- An Ever-So-Handy Power Cord
- 1 x Set of Mounting Brackets
- This Lovely User Manual

Getting It Out Of The Box

Congratulations on your purchase of the Kryo.Mix™ CMY! Now that you've got your Kryo.Mix™ CMY (*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, please just visit our website at www.blizzardpro.com/ support and open a support ticket. We'll be happy to help, honest.

Disclaimer: The information and specifications contained in this document are subject to change without notice. Blizzard Lighting™ assumes no responsibility or liability for any errors or omissions that may appear in this user manual. Blizzard Lighting™ reserves the right to update the existing document or to create a new document to correct any errors or omissions at any time. You can download the latest version of this document from www.blizzardpro.com.

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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 head. 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 open a support ticket at www.blizzardpro.com/support.

2. MEET THE KRYO.MIX™ CMY

MAIN FEATURES

- 350W Beam/Spot/Wash 3-in-1 Moving Head
- Light Source: YODN R17 350W, 8000K
- CMY Color Mixing and 15 Colors (+White)
- 1.5°- 35° Fast Linear Zoom
- 2* Gobo Wheels w/Bidirectional Rotation + Shake
- Rotating 12/36-Facet Prism
- Electronic Focus
- 1-18/second Strobe
- Pan: 540°/ Tilt: 280° (8-16 Bit Resolution)
- Variable Electronic Dimmer (0 – 100%)
- Color+Gobo+Prism+Strobe Automatic Operation
- 3/5-pin XLR Input/Output

CONTROL:

- Protocol: USITT DMX-512, Art-NET
- DMX Channels: 21/23/28
- 5-button LCD Control Panel Menu
- Operating Modes: Standalone, Master/Slave, Auto

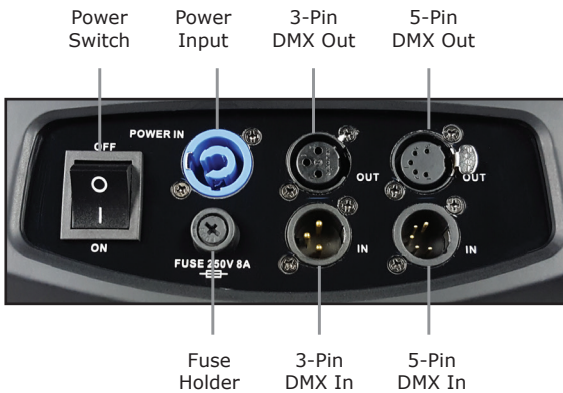
DMX Quick Reference (21/23/28-Channel Modes)

CH.	21-Channel	CH.	23-Channel	CH.	28-Channel
1	Pan (0-540°)	1	Pan (0-540°)	1	Pan (0-540°)
2	Tilt (0-280°)	2	Fine Pan (16-bit)	2	Fine Pan (16-bit)
3	Pan/Tilt Speed	3	Tilt (0-280°)	3	Tilt (0-280°)
4	Reset + Power Functions	4	Fine Tilt (16-bit)	4	Fine Tilt (16-bit)
5	Cyan (0% <-> 100%)	5	Pan/Tilt Speed	5	Pan/Tilt Speed
6	Magenta (0% <-> 100%)	6	Reset + Power Functions	6	Reset + Power Functions
7	Yellow (0% <-> 100%)	7	Cyan (0% <-> 100%)	7	Cyan (0% <-> 100%)
8	Color Wheel 1	8	Magenta (0% <-> 100%)	8	Magenta (0% <-> 100%)
9	Color Wheel 2	9	Yellow (0% <-> 100%)	9	Yellow (0% <-> 100%)
10	Color Wheel 3	10	Color Wheel 1	10	Color Wheel 1
11	Gobo Rotation Speed	11	Color Wheel 2	11	Color Wheel 2
12	Gobo Wheel 1	12	Color Wheel 3	12	Color Wheel 3
13	Gobo Wheel 2	13	Gobo Rotation Speed	13	Gobo Rotation Speed
14	Gobo Indexing/Rotation	14	Gobo Wheel 1	14	Gobo Wheel 1
15	Prism	15	Gobo Wheel 2	15	Gobo Wheel 2
16	Prism Indexing/Rotation	16	Gobo Indexing/Rotation	16	Gobo Indexing/Rotation
17	Frost	17	Prism	17	Gobo Rotation (fine)
18	Zoom (min to max)	18	Prism Indexing/Rotation	18	Prism
19	Focus (far to near)	19	Frost	19	Prism Indexing/Rotation
20	Strobe	20	Zoom (min to max)	20	Frost
21	Dimmer	21	Focus (far to near)	21	Zoom (min to max)
22	--	22	Strobe	22	Zoom (fine)
23	--	23	Dimmer	23	Focus (far to near)
24	--	24	--	24	Focus (fine)
25	--	25	--	25	Reserved
26	--	26	--	26	Strobe
--	--	27	--	27	Dimmer
--	--	28	--	28	Reserved

Figure 1: Kryo.Mix™ CMY Pin-Up Picture



Figure 2: The Rear Connections



3. SETUP



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

Fuse Replacement

Remove the fuse holder from of its housing. Then take out the damaged fuse from its holder and replace with exact same type of fuse. Reattach the fuse holder, and then reconnect power.

Connecting A Bunch of Kryo.Mix™ CMY 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

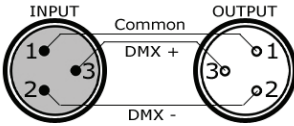
To link fixtures together you'll need data cables. You should use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

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

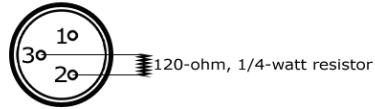
Cable Connectors

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, it's no problem! you can simply use the installed 5-pin DMX input and/or output connections found on the back of your fixture(s).

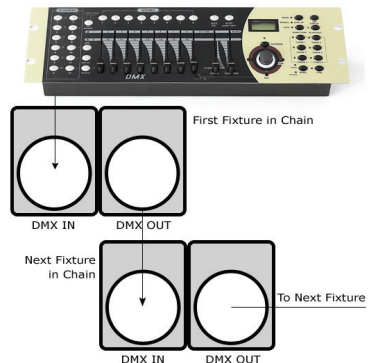
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data 1- (Primary Data Link)	Pin 2	Pin 2
Data 1+ (Primary Data Link)	Pin 3	Pin 3
Data 2- (Optional Secondary Data Link)	Pin 4	Pin 4
Data 2+ (Optional Secondary Data Link)	Pin 5	Pin 5

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.

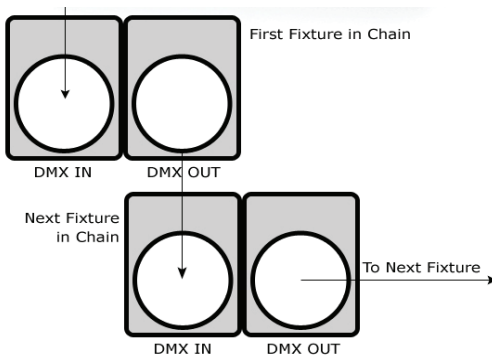
Step 2: Connect the female connector of the DMX cable to the first fixture's male connector (input). *Note:* It doesn't matter which fixture address is the first one connected. We recommend connecting the fixtures in terms of their proximity to the controller, rather than connecting the lowest fixture 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) 3/5-pin connector side of the DMX cable to the output (female) 3/5-pin connector of the first fixture.
2. Connect the end of the cable coming from the first fixture which will have a (female) 3/5-pin connector to the input connector of the next fixture consisting of a (male) 3/5-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.

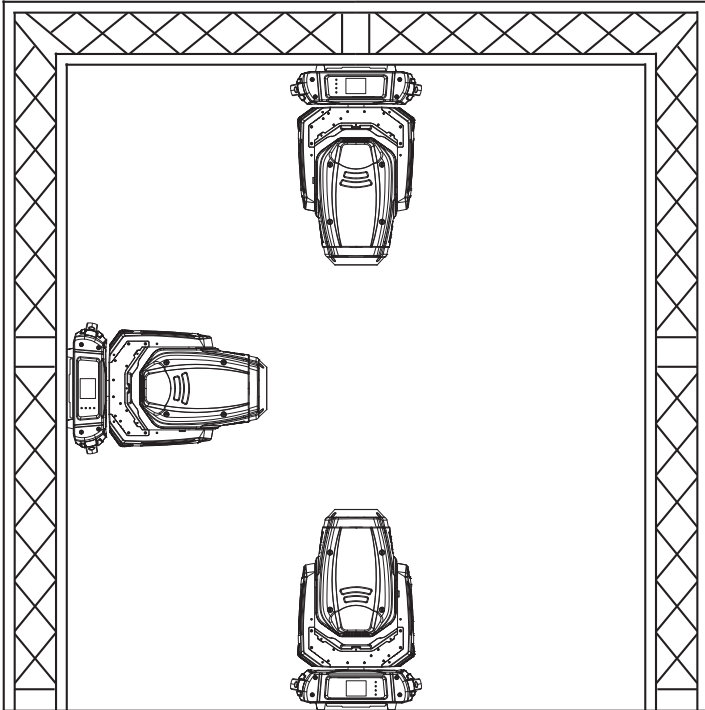
It is important never to obstruct the fan or vents pathway. Mount the fixture using a suitable “C” or “O” type clamp. The clamp should be rated to hold at least 10x the fixture’s weight to ensure structural stability. Do not mount to surfaces with unknown strength, and ensure properly “rated” rigging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

Mounting Points

Overhead mounting requires extensive experience, which includes calculating working load limits, knowledge of the installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.



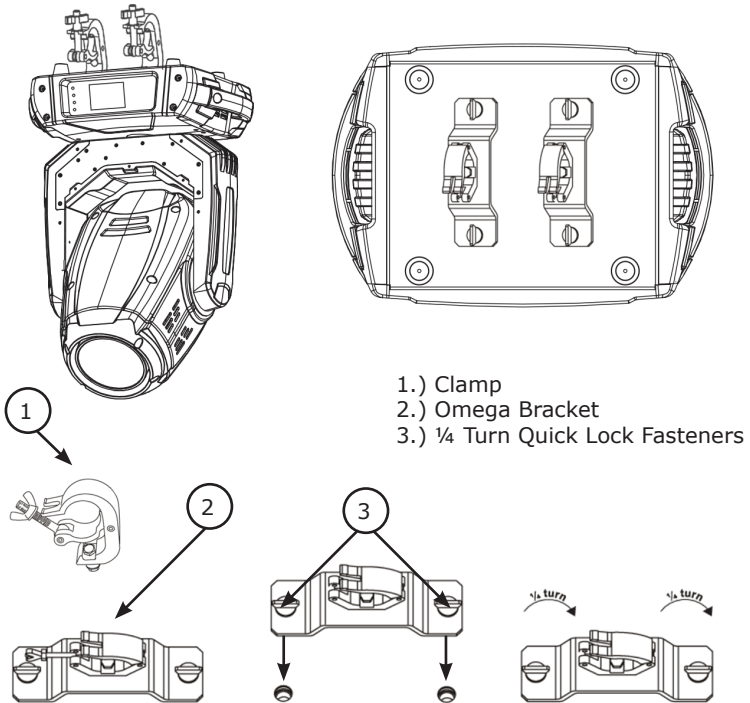
Caution!

Please be aware, you should have a qualified electrician performing all of your electrical connection needs. Better safe than sorry!

Be sure to complete all rigging and installation procedures before connecting the main power cord to the appropriate wall outlet.

Clamp Mounting

This fixture provides a mounting bracket assembly that secures the bottom of the base, the "Omega Brackets," and the safety cable rigging point together. When mounting this fixture to truss, be sure to secure an appropriately rated clamp to the omega bracket using an M10 screw fitted through the center hole of the "omega bracket".



Securing the Fixture

Regardless of the rigging option you choose for your fixtures always be sure to secure your fixture with a safety cable. Be sure to only use the designated rigging point found on the underside of the base assembly for the safety cable. Never secure a safety cable to a carrying handle.

Lamp Alignment and Replacement

Important: Before first use or when relamping, *you must to make sure that the lamp is properly seated.* An improperly seated lamp can cause the focal point to shift, and could burn the gobos or other internal components. It is possible that the lamp can shift during transit. Follow these instructions to ensure proper seating of the lamp before use.

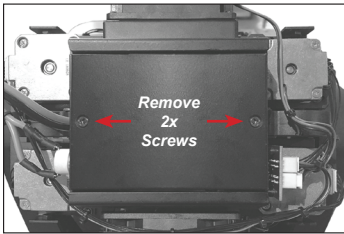
Access Inside the Head:

- 1.) Unplug the fixture from power and allow it to cool down for 20 minutes, if applicable.
- 2.) Apply the tilt lock mechanism.
- 3.) Remove the four screws on each head cover and lift the cover up from the head.

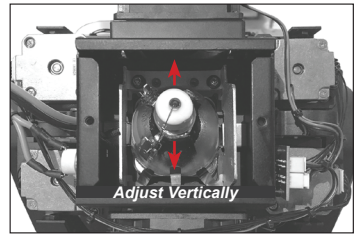
Lamp Compartment:

1.) Disengage tilt lock, tilt the head, unscrew the 2x phillips screws from the lamp compartment cover, and remove it.

2.) Remove the wires connecting the lamp, replace the lamp (if needed), and manually adjust its vertical position.



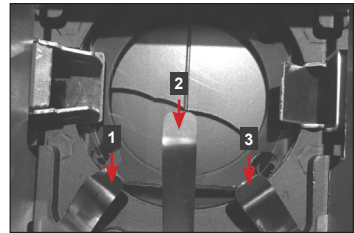
Remove lamp compartment cover.



Properly seat the lamp in position.

3.) If the lamp is too loose, with the lamp removed gently press down on the three metal tabs that hold the lamp in place. This can create a more secure grip once the lamp is installed.

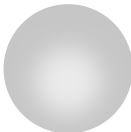
4.) Reinstall the lamp connection wires, compartment cover, and then connect the fixture to the mains to check if the adjustment has been correctly made.



Metal tabs that secure the lamp.

Testing for Proper Alignment:

- 1.) Power on the fixture and view a focused spot on the wall (without effects, gobos, etc.)
- 2.) The hot spot should be fairly centered within the circle of light.



Adjust Lamp Down



Centered Lamp



Adjust Lamp Up

3.) If needed, slight adjustments can be made to the lamp to move the hot spot into center of the light on the wall. **Adjust the lamp in the direction of the shifted hot spot.**

4. OPERATING ADJUSTMENTS

The Control Panel

All the goodies and different modes possible with the Kryo Mix™ CMY are accessed by using the control panel on the front of the fixture. There are 5 control buttons next to the LCD display which allow you to navigate through the various control panel menus.

<ENTER>

Is used to navigate to a higher-level menu item.

<UP>

Scrolls through menu items and numbers in ascending order.

<DOWN>

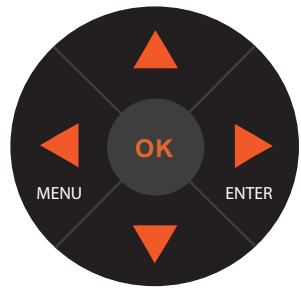
Scrolls through menu items and numbers in descending order.

<OK>

Is used to save any changes made to a menu setting.

<MENU>

To return to the previous option or menu without changing the value.



Access control panel functions using the five panel buttons located directly to the right of the LCD display.

The control panel LCD display shows the menu items you select from the menu map on page #14. 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>**, **<DOWN>**, and **<ENTER>** buttons to navigate the menu map and menu options. Press the **<OK>** button to enable a menu option. To return to the previous option or menu without changing the value, press the **<MENU>** button.

Control Panel Menu Structure

Signal	Address	Choose the DMX address 001-512	
	Velocity: Current DMX Frame Rate	000-255	
	Packets: Current # of DMX packets being received	000-255	
Special	Chan. Mode	21-channel mode 23-channel mode 28-channel mode	
	Run Mode	DMX Auto	
	Lamp Ch. Ena. Enables/disables lamp control in DMX mode, using "Power/Special Functions" channel.	Yes No	
	Lamp Default: Lamp state after boot.	Yes No	
	Strike/Douse: Allows the user to strike/douse the lamp from the menu. There is a 30 second delay when striking the lamp, to ensure cooling prior to restrike.	Strike Douse	
	Signal Lost: Default DMX Fail setting.	Hold Clr	
	DMX Reset: Enable/Disable fixture reset ability in DMX control.	Yes No	
	Fixture Reset Manually reset the fixture.	Cncl RST	
	Pan Reverse	Yes No	
	Tilt Reverse	Yes No	
	XY Speed Pan and tilt speed.	Fast Normal Slow	
	P/T Correction: Pan and tilt correction.	Yes No	
	Fixture Info	Total Hours	0000-9999
		Since Restart	0000-9999
		Lamp Hours	0000-9999
		Power Cycles	0000-9999
		Disp. FW	V0.XX
Control	Pan	000-255	
	Pan Fine	000-255	
	Tilt	000-255	
	Tilt Fine	000-255	
	XY Speed	000-255	
	Lamp On/Off	000-255	
	Cyan	000-255	
	Magenta	000-255	
	Yellow	000-255	
	Color Wheel 1	000-255	
	Color Wheel 2	000-255	
	CT Wheel	000-255	

Control Panel Menu Structure (continued)

	Gobo 1 (Stat)	000-255
	Gobo 2 (Rot)	000-255
	Gobo 2 Rot.	000-255
	Gobo R Fine	000-255
	Prism	000-255
	Prism Rot.	000-255
	Frost In/Out	000-255
	Zoom	000-255
	Zoom Fine	000-255
	Focus	000-255
	Dimmer	000-255
	Shutter	000-255
DMX Level	Pan Rotation	000-255
	Pan Fine	000-255
	Tilt Rotation	000-255
	Tilt Fine	000-255
	XY Speed	000-255
	Lamp On/Off	000-255
	Cyan	000-255
	Magenta	000-255
	Yellow	000-255
	Color Wheel 1	000-255
	Color Wheel 2	000-255
	CT Wheel	000-255
	Gobo 1 (Stat)	000-255
	Gobo 2 (Rot)	000-255
	Gobo 2 Rot.	000-255
	Gobo R Fine	000-255
	Prism	000-255
	Prism Rot.	000-255
	Frost In/Out	000-255
	Zoom	000-255
	Zoom Fine	000-255
	Focus	000-255
	Dimmer	000-255
	Shutter	000-255
Display	Flip Disp.	Nor
		Inv
	Language	Chinese
		English
	Brightness	10%-100%
	Backlight	90S
		Off
	Menu Rtn.	90S
		Off
Diagnostics	Check Code	000-255
	Clean Time	Illum
	Clean Count	Illum
	Clean Lamp	Illum
	Pan	000-255
	Tilt	000-255
	Cyan	000-255
	Magenta	000-255
	Yellow	000-255
	Color Wheel 1	000-255
	Color Wheel 2	000-255
	CT Wheel	000-255
	Gobo 1 (Stat)	000-255
	Gobo 2 (Rot)	000-255
	Gobo 2 Rot.	000-255
	Gobo R Fine	000-255
	Prism	000-255
	Prism Rot.	000-255
	Frost In/Out	000-255
	Zoom	000-255
	Focus	000-255
	Dimmer	000-255
	Shutter	000-255

DMX Values In-Depth (21/23/28-Channel Modes)

21-Channel	23-Channel	28-Channel	Value	What it does
1	1	1	000 <-> 255	Pan (0-540°)
--	2	2	000 <-> 255	Fine Pan (16-bit)
2	3	3	000 <-> 255	Tilt (0-280°)
--	4	4	000 <-> 255	Fine Tilt (16-bit)
3	5	5	000 <-> 255	Pan & Tilt Speed (fast <-> slow)
4	6	6	000 <-> 019	Power/Special Functions
			020 <-> 024	Reserved
			025 <-> 129	Half Power
			130 <-> 139	Reserved
			140 <-> 199	Lamp On
			200 <-> 209	Reserved
			210 <-> 229	Fixture Reset
230 <-> 239	Reserved			
240 <-> 255	Lamp Off			
5	7	7	000 <-> 255	Reserved
6	8	8	000 <-> 255	Cyan Intensity (0% <-> 100%)
7	9	9	000 <-> 255	Magenta Intensity (0% <-> 100%)
8	10	10	000 <-> 004	Color Wheel 1
			005 <-> 054	White
			055 <-> 104	Color 1
			105 <-> 154	Color 2
			155 <-> 204	Color 3
			205 <-> 254	Color 4
9	11	11	000 <-> 004	Color Wheel 2
			005 <-> 054	White
			055 <-> 104	Color 1
			105 <-> 154	Color 2
			155 <-> 204	Color 3
			205 <-> 254	Color 4
10	12	12	000 <-> 004	Color Wheel 3
			005 <-> 054	White
			055 <-> 104	Color 1
			105 <-> 154	Color 2
			155 <-> 204	Color 3
			205 <-> 254	Color 4
11	13	13	000 <-> 255	Color 5
12	14	14	000 <-> 255	Gobo Rotation (fast <-> slow)
			000 <-> 004	Gobo Wheel #1
			005 <-> 009	Open (White)
			010 <-> 014	Gobo 1
			015 <-> 019	Gobo 2
			020 <-> 024	Gobo 3
			025 <-> 029	Gobo 4
			030 <-> 034	Gobo 5
			035 <-> 039	Gobo 6
			040 <-> 044	Gobo 7
			045 <-> 049	Gobo 8
			050 <-> 054	Gobo 9
			055 <-> 059	Gobo 10
			060 <-> 064	Gobo 11
			065 <-> 069	Gobo 12
			070 <-> 074	Gobo 13
			075 <-> 079	Effect Gobo
			080 <-> 084	Effect Gobo
			085 <-> 089	Effect Gobo
			090 <-> 129	Effect Gobo
			130 <-> 134	Effect Gobo
			135 <-> 170	Effect Gobo
			171 <-> 175	Effect Gobo
			176 <-> 180	Effect Gobo
			181 <-> 185	Effect Gobo
			186 <-> 190	Effect Gobo
			191 <-> 195	Effect Gobo
			196 <-> 199	Effect Gobo
			200 <-> 204	Effect Gobo
			205 <-> 209	Effect Gobo
			210 <-> 214	Effect Gobo
			215 <-> 219	Effect Gobo
			220 <-> 224	Effect Gobo
225 <-> 229	Effect Gobo			
230 <-> 234	Effect Gobo			
235 <-> 239	Effect Gobo			
240 <-> 244	Effect Gobo			
245 <-> 249	Effect Gobo			
250 <-> 254	Effect Gobo			
255 <-> 255	Effect Gobo			

DMX Values In-Depth (21/23/28-Channel Modes), *continued*

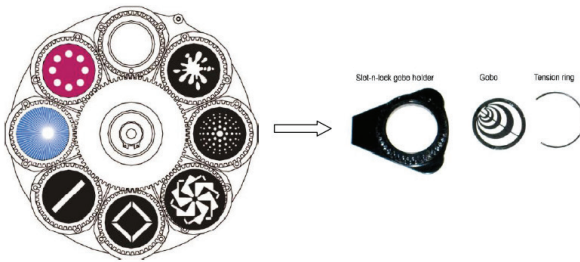
21-Channel	23-Channel	28-Channel	Value	What it does
13	15	15	000 <-> 004	Gobo Wheel #2 Open (White)
			005 <-> 009	Gobo 1
			010 <-> 014	Gobo 2
			015 <-> 019	Gobo 3
			020 <-> 024	Gobo 4
			025 <-> 029	Gobo 5
			030 <-> 034	Gobo 6
			035 <-> 039	Gobo 7
			040 <-> 044	Gobo 8
			045 <-> 049	Gobo 9
			050 <-> 054	Gobo 10
			055 <-> 059	Gobo 11
			060 <-> 064	Gobo 12
			065 <-> 074	Gobo Shake 1 (slow <-> fast)
			075 <-> 084	Gobo Shake 2 (slow <-> fast)
			085 <-> 094	Gobo Shake 3 (slow <-> fast)
			095 <-> 104	Gobo Shake 4 (slow <-> fast)
			105 <-> 114	Gobo Shake 5 (slow <-> fast)
			115 <-> 124	Gobo Shake 6 (slow <-> fast)
			125 <-> 134	Gobo Shake 7 (slow <-> fast)
			135 <-> 144	Gobo Shake 8 (slow <-> fast)
			145 <-> 154	Gobo Shake 9 (slow <-> fast)
			155 <-> 164	Gobo Shake 10 (slow <-> fast)
			165 <-> 174	Gobo Shake 11 (slow <-> fast)
			175 <-> 184	Gobo Shake 12 (slow <-> fast)
185 <-> 190	Open (White)			
191 <-> 211	Clockwise Rotation (fast <-> slow)			
212 <-> 222	Stop (no rotation)			
223 <-> 243	Counter-Clockwise Rotation (slow <-> fast)			
244 <-> 249	Sound Active Color Select (random)			
250 <-> 255	Auto Color Select (random)			
14	16	16	000	Gobo Indexing/Rotation Stop (no rotation)
			001 <-> 127	Linear rotating rotation
			128 <-> 189	Clockwise Rotation (fast <-> slow)
			190 <-> 194	Stop (no rotation)
			195 <-> 255	Counter-Clockwise Rotation (slow <-> fast)
--	--	17	000 <-> 255	Gobo Indexing/Rotation (fine)
15	17	18	000 <-> 004	Prism Open
			005 <-> 063	12-Facet Prism, Indexing
			064 <-> 127	Prism Rotation
			128 <-> 191	36-Facet Prism, Indexing
			192 <-> 255	Prism Rotation
16	18	19	000 <-> 255	Prism Indexing/Rotation Indexing: Set position on channel 15/17/18
			000	Stop (no rotation)
			001 <-> 127	Clockwise Rotation (fast <-> slow)
			128 <-> 129	Stop (no rotation)
			130 <-> 255	Counterclockwise Rotation (slow <-> fast)
17	19	20	000 <-> 179	Frost Frost (0% <-> 100%)
			180 <-> 189	100% frost
			190 <-> 211	Pulse closing (slow <-> fast)
			212 <-> 233	Pulse opening (fast <-> slow)
			234 <-> 255	Ramping (fast <-> slow)
18	20	21	000 <-> 255	Zoom Zoom (wide <-> narrow)
			--	--
19	21	23	000 <-> 255	Focus Focus (far <-> near)
--	--	24	000 <-> 255	Focus Fine
--	--	25	000 <-> 255	Reserved
20	22	26	000 <-> 031	Strobe Closed (half lamp power)
			032 <-> 063	Open (full lamp power)
			064 <-> 095	Strobe (slow <-> fast)
			096 <-> 127	Shutter open
			128 <-> 143	Pulse closing (slow <-> fast)
			144 <-> 159	Pulse opening (fast <-> slow)
			160 <-> 191	Shutter open
			192 <-> 223	Random strobe (slow <-> fast)
			224 <-> 255	Open (full lamp power)
			21	23
--	--	28	000 <-> 255	Reserved

Gobo Replacement

- 1) Disconnect the fixture from power and allow to cool.
- 2) Position the head and apply the tilt lock.
- 3) Remove the rear head cover located on the same side as the pan lock
- 4) Remove the slot-n-lock gobo from the gobo wheel by lifting up slightly and sliding it out.
- 5) Using a small tool, pry the tension ring from the gobo holder.
- 6) Remove the old gobo, insert the new gobo, and replace in the reverse steps of removal.

ATTENTION:

- The original gobos supplied in this fixture use a special coating, specifically designed to resist the high internal temperature.
- Custom gobos will similarly need to use an approved gobo type. Blizzard has tested "Type 3" and "KO/G05/P05/DY" type gobos available from gobosource.com with excellent results.
- Any fixture damage caused by using an unapproved gobo type/supplier will not be covered under warranty!



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.
No Power	Check fuse, AC cord and circuit for malfunction.
Blown Fuse	Check AC cord and circuit for damage, verify that moving parts are not restricted and that unit's ventilation is not obstructed
Slow Movement	Check that speed channels are set appropriately.
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).
Fixture Moving On Its Own	Verify proper mode of operation. Is the fixture in "Auto" mode?

**If your problem isn't listed, or if problems persist,
please open a support ticket at www.blizzardpro.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 Kryo.Mix™ CMY 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.blizzardpro.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.

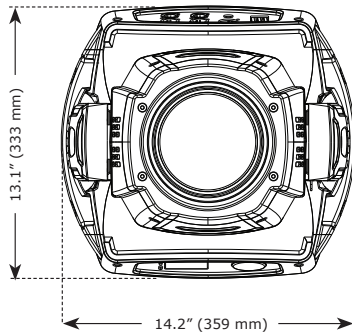
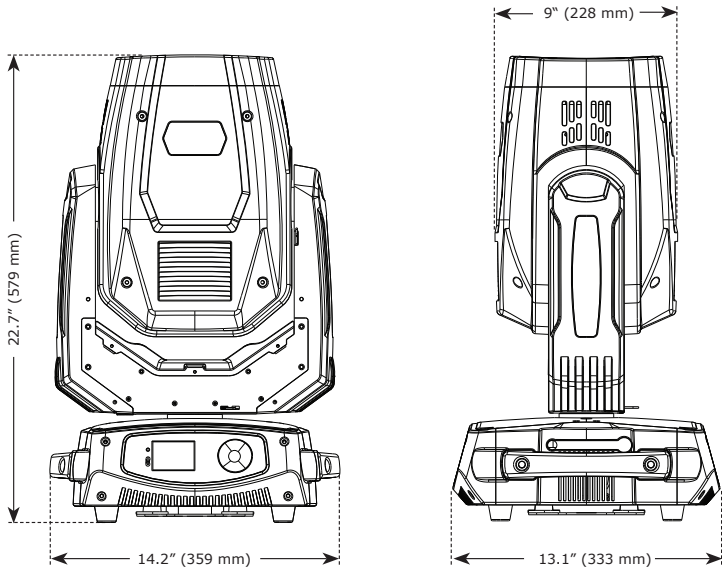
Tech Specs!

Weight & Dimensions	
Width	14.2 inches (359 mm)
Depth	13.1 inches (333 mm)
Height	22.7 inches (579 mm)
Weight	41.9 lbs. (19 kg)
Power	
Operating Voltage	100V-240VAC, 50-60Hz
Power Consumption	393W, 3.35A, PF: .98
Fuse	250V, 8A
Light Source	
Lamp	350W YODN R17
Color Temperature	8000K
Optical	
Beam Angle	1.5°- 35° beam angle
Luminous Intensity	43,292 Lux @ 2m (wide) 130,947 Lux @ 5m (narrow) 7,664 Lux @ 5m (wide)
Gobo Size	9.9mm outer, 5.5mm inner diameter, 1.1mm thickness.
Thermal	
Max. Operating Temp.	104 degrees F (40 degrees C) ambient
Movement Range	
Pan	540 degree (8-16 Bit Resolution)
Tilt	280 degree (8-16 Bit Resolution)
Control	
Protocol	USITT DMX-512
DMX Channels	21/23/28-channel DMX Modes
Input	3/5-pin XLR Male
Output	3/5-pin XLR Female
Other Operating Modes	Standalone, Master/Slave, Auto
Other Information	
The w in "between" really is.	
Warranty	2-year limited warranty, does not cover malfunction caused by damage to LEDs.

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.

Dimensional Drawings



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