

Borealis XL Z

37x25w Wash Moving Head



User Manual

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1. Introduction and Setup

Unpacking and In the Box

Thank you for choosing our Borealis XL Z. For your own safety, please read this manual before installing or using the device. This manual covers the important information on installation and applications. Please install and operate the fixture with following instructions. Meanwhile, please keep this manual for future needs.

In the box you will find:

- Borealis XL Z 1
- PowerCon Cable: 1
- DMX Signal Cable 1
- Pair of Omega Brackets

Mounting and Operation

Use the clamps that are included with the Borealis XL Z to hang the fixture from the mount(s) on the fixture's yoke.

As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using on of the safety cable rigging point integrated in the base assembly or on the yoke. **(or moving light)**

Clamp Mounting: The Borealis XL Z moving head provides a unique mounting bracket assembly that integrates the bottom of the base, and the safety cable rigging point in one unit.

When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included omega bracket using a M10 screw fitted through the center hole of the "omega bracket".

As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using on of the safety cable rigging point integrated in the base assembly.

Features

Safety Precautions

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

Caution: For added protection mount the fixtures in areas outside walking paths, seating areas, or in areas where the fixture might be reached by unauthorized personnel.

Before mounting the fixture to any surface, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.

Never stand directly below the device when mounting, removing, or servicing the fixture.

From a ceiling, or set on a flat level surface (see illustration below). Be sure this fixture is kept at least 0.5m (1.5ft) away from any flammable materials (decoration etc.).

Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

DO NOT connect the device to any dimmer pack.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, and it will decrease gradually within 15 minutes.

Don't try to modify the fixture without any instruction by the manufacturer.

Warranty is voided if there are any malfunctions from not following the user manual while operating or any hazardous operation, like shock short circuit, electronic shock, lamp broken, etc.

Customer Support

WARRANTY POLICY

GAMMA LED Vision warrants its products for the periods set below from the date of purchase to be free of manufacturer and workmanship defects. Warranty does not cover normal wear and tear caused by force, negligence or misuse of products. GAMMA LED Vision is not responsible for any damages or injury caused by misuse or improper handling of the products and in accordance with instructions and specifications of manual.

Warranty terms are as follows:

LED Fixtures:

Indoor: 2 Years

Outdoor (IP 54 or higher): 1 Year

Lamp Fixtures: 1 year / excludes the lamp

LED Video Products:

Indoor: 2 Years

Outdoor (IP 54 or higher): 1 Year

Controllers: 2 years

Batteries: 6 months

All Trussing Related Products and Accessories: 1 Year

Please visit WWW.GAMMALEDVISION.COM for complete Limited Warranty terms and contact information.

2. Setup and Operation

Using the LCD Menu and Buttons

Turn on the light, press the **MENU** button to enter the menu mode, use the **UP** and **DOWN** buttons to find the menu,

When the preset menu is displayed on the display screen, press the **ENTER** button to confirm, use the **UP** and **DOWN** buttons to select the sub menu, press the **ENTER** button to save the settings or automatically return to the previous menu.

Press the **MENU** button to return, or wait for one minute and then exit the menu mode automatically. When there is no power connection, press the **UP** button for 1 minute to enter the menu mode. After setting, press **MENU** button or wait for 1 minute to exit the power-off setting function automatically.

There is also a status LED on the fixture to show if DMX is active.

DMX Address

Select the **Address** press **ENTER** to confirm, and the current **DMX address** will be displayed on the display. Use **UP / DOWN** button to select **001-512** address, and press **ENTER** button to save. Press the **MENU** button to return to the previous menu or wait one minute for the menu mode to exit automatically.

Channel Mode

Select the **Address** and then click **DMX Mode**, press **ENTER** to confirm, and the current **Channel Mode** will be displayed on the display. Use **UP / DOWN** button to select **15CH/27CH**, and press **ENTER** button to save. Press the **MENU** button to return to the previous menu or wait one minute for the menu mode to exit automatically.

Manual Mode

Select the **Address** and then click **DMX Values**. Here you will be able to manually control the fixture. Select the value and press **ENTER** to confirm.

(**Performance mode 1~8**) , and press **ENTER** button to save. Press the **MENU** button to return to the previous menu or wait one minute for the menu mode to exit automatically.

Auto Mode

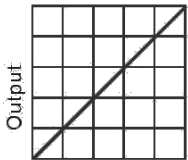
Select the **Control** button and then click **Auto Control**, press **ENTER** to confirm, and the current **Auto Control** setting will occur. Press **ENTER** button to save. Press the **MENU** button to return to the previous menu or wait one minute for the menu mode to exit .

Temp

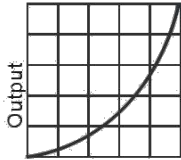
Select the **Display** button and click either C° or F° for unit of measurement. Press **ENTER** to confirm and the temperature will then display on the main menu.

Dimmer Curve

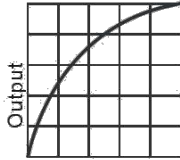
Dimmer Modes:



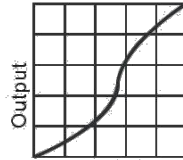
DMX%
(Optically Linear)



DMX%
(Square Law)



DMX%
(Inverse Square Law)



DMX%
(S-Curve)

Linear: The increase in light intensity appears to be linear as DMX value is increased.

Square Law: Light intensity control is finer at low levels and coarser at high levels.

Inverse Square Law: Light intensity control is coarser at low levels and finer at high levels.

S-cure: Light intensity control is finger at low levels and high levels and coarser at medium levels.

Dimmer Speed

To select **Dimmer Speed**, press the **ENTER** button to show the **DIMMER SPEED** on the display.

Use the **UP/DOWN** button to select **Fast** or **Smooth**. Once selected, press the **ENTER** button to setup.

Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu

mode.

DMX Setup

DMX Basics

DMX512 stands for digital multiplex 512. This means that 512 channels are controlled digitally through 1 data cable.

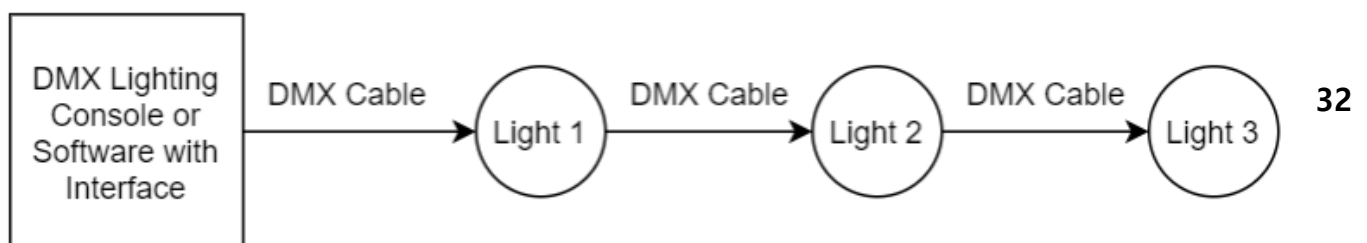
A channel is a set of 255 steps that are assigned to control attributes in each light. This may be a color like red, green or blue, and intensity, strobe, pan/tilt or other attributes.

Multiple sets of 512 "universes" may be used. Only 1 universe will travel on a DMX cable, but through networked DMX (Art-Net or sACN E1.31), many universes can travel over a network.

DMX Wiring

DMX works by connecting 1 or multiple lights to the output of a DMX lighting console or software with a DMX interface.

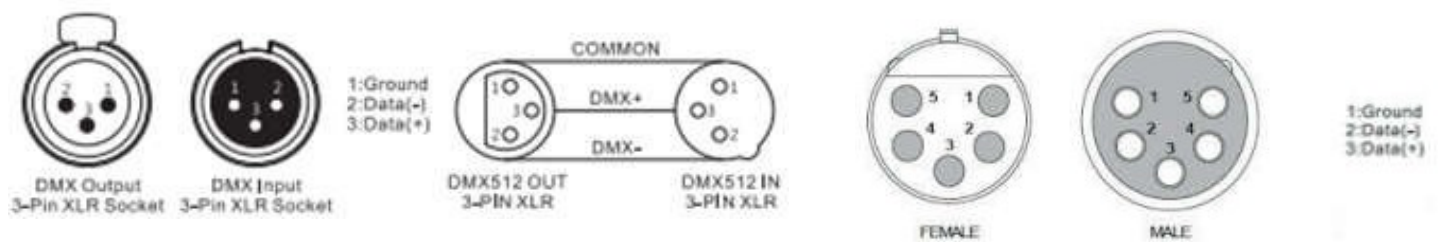
DMX lights connect in what is called a "daisy-chain". Your first DMX cable will plug its male DMX connector into the female DMX connector on your lighting console. The remaining female connector will then connect to the DMX input on your first light. You may then connect your next fixture to the output of your first light, and continue the chain.



Fixture Rule – DMX only allows you to connect up to 32 fixtures in a single daisy chain for signal strength. Sometimes, depending on the fixtures and cable length, this number is less (or more).

DMX Cables can be 3-pin or 5-pin. These use the same type of data, and in the 5-pin only pins 1, 2, and 3 are used. The cable should be a 2 conductor, shielded cable of at least 110 ohms resistance. Microphone cable is not DMX cable.

Please refer to the diagram below:



DMX Modes and Configuration

The Borealis XL Z has multiple DMX modes, sometimes called "personalities", "profiles", or as we will use here "modes".

In general, modes with more DMX channels offer a greater level of control or options but take up more of your output channels on your lighting console or software.

Modes with less DMX channels often offer less control, but may be plenty for your needs.

Depending on your needs and control solution, you may not need channels for automated programs, strobes, or macros – your console may have great effects! In this case, you can use a lesser channel mode and fit more lights per DMX universe.

View the DMX mode charts below to find the mode that best suits your needs.

Menu Operation

15 Channel Mode

MENU	DMX Channel: 15	Value	Function
	1	0-255	Pan
	2	0-255	Pan Fine
	3	0-255	Tilt
	4	0-255	Tilt Fine
	5	0-255	Pan/Tilt Speed (Fast-Slow)
	6	0-255	Zoom (Wide-Narrow)
	7	000-009 010-014 015-255	Special Functions No Function Reset No Function
	8	0-255	Dimmer 0%-100%
	9	0-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124	Shutter Blackout Open Strobe 1: Fast-Slow Open Strobe 2: Opening Pulse: Fast-Slow Open Strobe 3: Closing Pulse: Fast-Slow Open Strobe 4: Random Strobe: Fast-Slow

	125-129	Open
	130-144	Strobe 5: Random Opening Pulse: Fast-Slow
	145-149	Open
	150-164	Strobe 6: Random Closing Pulse: Fast-Slow
	165-169	Open
	170-184	Strobe 7: Burst Pulse: Fast-Slow
	185-189	Open
	190-204	Strobe 8: Random Burst Pulse: Fast-Slow
	205-209	Open
	210-224	Strobe 9: Sine Wave: Fast-Slow
	225-229	Open
	230-244	Strobe 10: Burst: Fast-Slow
	245-255	Open
10	0-255	Red: 0%-100%
11	0-255	Green: 0%-100%
12	0-255	Blue: 0%-100%
13	0-255	White: 0%-100%
14		Color Macro
	0-009	Open
	010-014	Moroccan Pink
	015-019	Pink
	020-024	Rose Pink
	025-029	Follies Pink
	030-034	Fuchsia Pink
	035-039	Surprise Pink
	040-044	Congo Blue
	045-049	Tokyo Blue
	050-054	Deep Blue
	055-059	Just Blue
	060-064	Medium Blue
	065-069	Double CT Blue
	070-074	State Blue

	075-079	Full CT Blue
	080-084	Half CT Blue
	085-089	Steel Blue
	090-094	Lighter Blue
	095-099	Light Blue
	100-104	Medium Blue Green
	105-109	Dark Green
	110-114	Primary Green
	115-119	Moss Green
	120-124	Fern Green
	125-129	JAS Green
	130-134	Lime Green
	135-139	Spring Yellow
	140-144	Deep Amber
	145-149	Chrome Orange
	150-154	Orange
	155-159	Gold Amber
	160-164	Gold
	165-169	Deep Gold Amber
	170-174	Flame Red
	175-179	Open
		Color Wheel Rotation Effect
	180-201	Clockwise: Fast-Slow
	202-207	Stop (This will stop on whatever color is on)
	208-229	Counter Clockwise: Slow-Fast
	230-234	Open
		Random Color
	235-239	Fast
	240-244	Medium
	245-249	Slow
	250-255	Open
15		CTO

27 Channel Mode

MENU	DMX Channel: 15	Value	Function
	1	0-255	Pan
	2	0-255	Pan Fine
	3	0-255	Tilt
	4	0-255	Tilt Fine
	5	0-255	Pan/Tilt Speed (Fast-Slow)
	6	0-255	Zoom (Wide-Narrow)
	7	000-009 010-014 015-255	Special Functions No Function Reset No Function
	8	0-255	Dimmer 0%-100%
	9	0-019 020-024 025-064 065-069 070-084 085-089 090-104	Shutter Blackout Open Strobe 1: Fast-Slow Open Strobe 2: Opening Pulse: Fast-Slow Open Strobe 3: Closing Pulse: Fast-Slow

	105-109	Open
	110-124	Strobe 4: Random Strobe: Fast-Slow
	125-129	Open
	130-144	Strobe 5: Random Opening Pulse: Fast-Slow
	145-149	Open
	150-164	Strobe 6: Random Closing Pulse: Fast-Slow
	165-169	Open
	170-184	Strobe 7: Burst Pulse: Fast-Slow
	185-189	Open
	190-204	Strobe 8: Random Burst Pulse: Fast-Slow
	205-209	Open
	210-224	Strobe 9: Sine Wave: Fast-Slow
	225-229	Open
	230-244	Strobe 10: Burst: Fast-Slow
	245-255	Open
10	0-255	Ring 1 Red: 0%-100%
11	0-255	Ring 1 Green: 0%-100%
12	0-255	Ring 1 Blue: 0%-100%
13	0-255	Ring 1 White: 0%-100%
14		Ring 1 Color Preset
	0-009	Open
	010-017	Color 1
	018-024	Color 2
	025-032	Color 3
	033-039	Color 4
	040-047	Color 5
	048-054	Color 6
	055-061	Color 7
	062-069	Color 8
	070-076	Color 9
	077-084	Color 10
	085-091	Color 11

	092-099	Color 12
	100-106	Color 13
	107-113	Color 14
	114-121	Color 15
	122-128	Color 16
	129-136	Color 17
	137-143	Color 18
	144-151	Color 19
	152-158	Color 20
	159-165	Color 21
	166-173	Color 22
	174-180	Color 23
	181-188	Color 24
	189-195	Color 25
	196-203	Color 26
	204-210	Color 27
	211-217	Color 28
	218-225	Color 29
	226-232	2700K
	233-240	3200K
	241-247	4200K
	248-255	5600K
	175-179	Open
		Color Wheel Rotation Effect
	180-201	Clockwise: Fast-Slow
	202-207	Stop (This will stop on whatever color is on)
	208-229	Counter Clockwise: Slow-Fast
	230-234	Open
		Random Color
	235-239	Fast
	240-244	Medium
	245-249	Slow
	250-255	Open

15	0-255	Ring 2 Red: 0%-100%
16	0-255	Ring 2 Green: 0%-100%
17	0-255	Ring 2 Blue: 0%-100%
18	0-255	Ring 2 White: 0%-100%
19		Ring 2 Color Preset
	0-009	Open
	010-017	Color 1
	018-024	Color 2
	025-032	Color 3
	033-039	Color 4
	040-047	Color 5
	048-054	Color 6
	055-061	Color 7
	062-069	Color 8
	070-076	Color 9
	077-084	Color 10
	085-091	Color 11
	092-099	Color 12
	100-106	Color 13
	107-113	Color 14
	114-121	Color 15
	122-128	Color 16
	129-136	Color 17
	137-143	Color 18
	144-151	Color 19
	152-158	Color 20
	159-165	Color 21

	166-173	Color 22
	174-180	Color 23
	181-188	Color 24
	189-195	Color 25
	196-203	Color 26
	204-210	Color 27
	211-217	Color 28
	218-225	Color 29
	226-232	2700K
	233-240	3200K
	241-247	4200K
	248-255	5600K
	175-179	Open
		Color Wheel Rotation Effect
	180-201	Clockwise: Fast-Slow
	202-207	Stop (This will stop on whatever color is on)
	208-229	Counter Clockwise: Slow-Fast
	230-234	Open
		Random Color
	235-239	Fast
	240-244	Medium
	245-249	Slow
	250-255	Open
20	0-255	Ring 3 Red: 0%-100%
21	0-255	Ring 3 Green: 0%-100%
22	0-255	Ring 3 Blue: 0%-100%
23	0-255	Ring 3 White: 0%-100%

24	0-007 008-022 023-037 038-052 053-067 068-082 083-097 098-112 113-127 128-142 143-157 158-172 173-187 188-202 203-217 218-232 233-247 248-255	Ring Color Macro Blackout Macro 1 Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8 Macro 9 Macro 10 Macro 11 Macro 12 Macro 13 Macro 14 Macro 15 Macro 16 Macro 17
26	0-255	Color Macro Speed Slow-Fast
27		CTO

3. Maintenance

Routine Maintenance

The cleaning of lens must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smokey, or particularly dirty surrounding can cause greater accumulation of dirt on the fixture's optics.

- Clean with a damp, soft cloth..
- Always dry the parts carefully.
- Clean the external optics at least every 20 days in demanding environments.

Troubleshooting Problems

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

A. The unit does not work:

- Check that the unit is plugged in to a working power connector.
- Press the menu button to confirm that the unit is powered on. If the screen does not light up, the unit has no power.

B. Not Responding to the DMX Controller

- Check DMX cables to verify that they are plugged in and functional.
- Check the DMX address and mode – does it match the address and mode patched in the lighting console or software?
- Plug the light directly into the DMX controller with a cable that you know is good. Unplug all other lights – does it work?
- Try to use another DMX controller.

4. Technical Specifications

- **Input Voltage:** AC 100-240V, 50/60Hz
- **Total Power consumption:** 850W
- **LED Sources:** 37x25w LED's
- **Beam Angle:** 10-60°
- **Color:** RGBW Color Mixing
- **Color Temperature:** 2,700-5,600K
- **Dimmer:** Linear, Square Law, Inverse Square Law, S-Curve
- **Shutter:** independent electronic strobe;
- **Control Mode:** DMX, RDM, Manual, Auto Run
- **Channel modes:** 15/27 Channel Modes
- **Waterproof Grade:** IP-20
- **Power Cable Daisy Chain:** 5 Fixture max (120V)/ 9 Fixture max (230V)
- **Dimensions:** 8x16x19"/37 lbs

