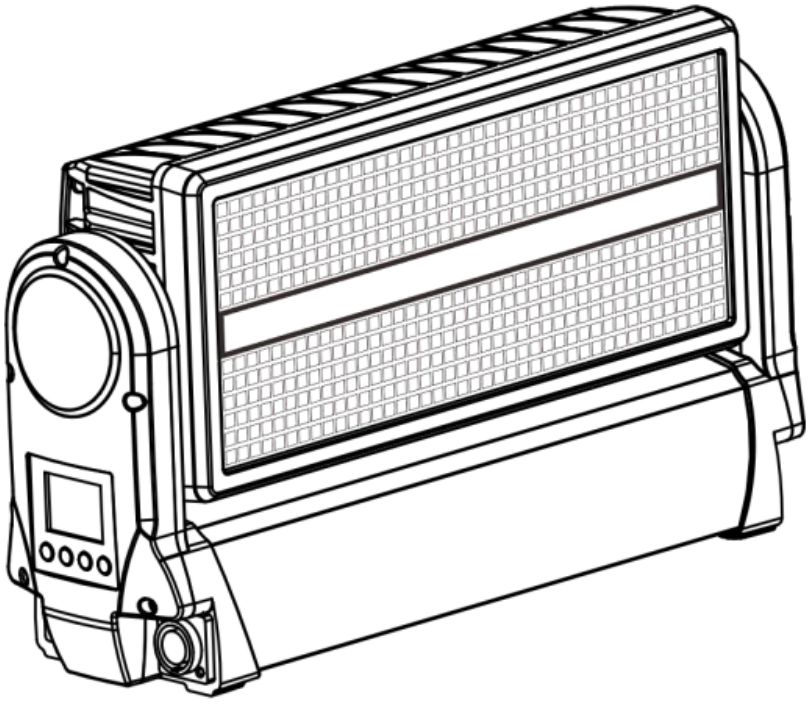
Storm X

Waterproof, High-Powered LED Strobe/Blinder with Tilt



User Manual

Table of Contents

1. Introduction and Setup

Unpacking and In the Box

Thank you for choosing our Storm X. 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:

- Storm X Fixture 1
- Omega Brackets 2
- True1 compatible power cable 1
- Waterproof 3-Pin DMX Cable 1
- Safety Cable 1

Features

- Strobe Panel LED’s: 480 x .5w RGB LED’s in 8 segments
- Strobe Center LED’s: 144 x 5w 6500k Cool-White LED’s in 4 Segments
- Movement: 16bit Tilt, 185°
- Control: USITT DMX512, RDM
- Modes: 7CH/14CH/16CH/42CH/44CH
- Cooling: Variable-Speed Fan Control
- 3 pin Waterproof DMX input and output
- True1 Compatible Input and Output
- Operating Voltage: 100-240v AC, 50-60Hz
- 1000w MAX
- Temperature Range: -22° F to 122° F
- Dimensions: 18.9” x 9.0” x 9.5”
- Weight: 22.5lbs

Mounting and Operation

Clamp Mounting: The Storm X provides omega brackets which you can attach clamps to for typical clamp mounting. Once the clamps are attached to the omega brackets, you can attach the omega brackets to the fixture via the 1/4 turn fasteners.

The Storm X features 3 Omega bracket mounting points – the center mounting point may be used for single clamp operation, or the outer mounting points may be used for dual clamp mounting.

As an added safety measure be sure to attach at least one properly rated safety cable to the fixture using the integrated safety attachment point.

Power and Data Guidelines:
Ensure all connections and end caps are properly sealed with dielectric grease when used outdoors in order to prevent water corrosion at the connection point.

To maintain the IP-65 rating, seal all unused connection rubber caps.

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.

Do NOT operate if the fixture is not capable of a full range of unrestricted motion.

Move any objects away from the unit, do not allow the moving head to hit any objects. Failure to do so may cause damage outside of scope of the warranty.

Caution: For added protection mount the fixtures in areas outside walking paths, seating areas, or in areas were 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 items 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 a 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, etc.

Fixture must be 1’ from any flammable materials. Do not light any flammable objects closer than 6.5 feet.

Do not allow other fixtures to shine a focused beam upon the display on lens of this fixture.

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.GAMMALEDVISON.COM for complete Limited Warranty terms and contact information.

2. Setup and Operation

Menu Buttons Reference:
A) Menu (Back)
B) Up
C) Down
D) Enter

Using the LCD Menu and Buttons

After turning on the fixture, press the **ENTER** button to enter the menu mode, use the **UP** and **DOWN** buttons to find the menu item, and **ENTER** to enter the menu. At factory default settings, the menu will close after a short period of inactivity.

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 to exit the menu mode automatically.

Menu Operation

Menu Option	**Sub Menu or Options**	**Description**
DMX Address	001-512	Set DMX Address
DMX Channel Mode	7 CH, 14 CH, 16 CH, 42 CH, 44 CH	Set the DMX Mode
Dimmer Mode	Dim1-Dim5	Set the Dimmer Curve Mode
Mode Selection	Auto 1	Set the Light in Auto Mode 1
	Auto 2	Set the Light in Auto Mode 2
	Auto 3	Set the Light in Auto Mode 3
	Y Motor	Manually set the Tilt Position
	White	Manually set the White Level (Strobe LED’s)
	W Stroboscopic	Manually set the strobe value (Strobe LED’s)

Menu Option	Sub Menu or Options	Description
	Red	Manually set the Red plate LED’s
	Green	Manually set the Green plate LED’s
	Blue	Manually set the Blue plate LED’s
	RGB Stroboscopic	Manually set the strobe level on the plate (colored) LED’s.
	Language	Set the language of the fixture menus.

DMX Setup

Patching/Pixel Mapping Guidelines:

The Storm X offers up to 8 segments of LED control across (2) banks of (4) segments each for the plate (RGB) LED’s, and 4 segments of LED for the center strobe LED’s.

The layout of the pixels is as follows: when the tilt is at 0 and the Storm X is hanging with the LCD on the LEFT side of the fixture, the segments are numbered left to right, top to bottom.

In the different modes, you will see that some modes offer full main pixel control, some full backlight pixel control, and some offer both.

Modes that offer both will main control of the entire backlight/strobe as well as segments will ONLY work to control segments when the main color controls are all set to zero. We recommend setting the default color values on the main plate RGB and main strobe White to zero in your console so that it is not accidentally activated when you are intending to use the segments for control.

Even the simplest modes offer macros to get effects across all pixels, with some control.

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.

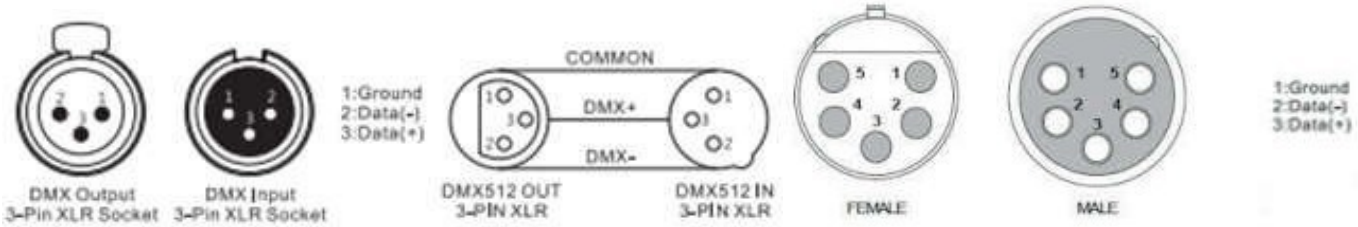
DMX lights connect in what is called a “daisy-chain”. Your first DMX cable will plug it’s male DMX connector into the female DMX connector on your lighting console. The remaining female connector will then connect to the DMX input on your first light.

You may then connect your next fixture to the output of your first light, and continue the chain.

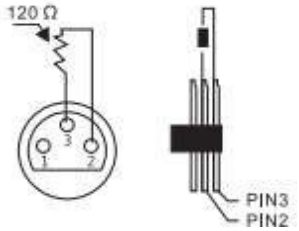
32 Fixture Rule – DMX only allows you to connect up to 32 fixtures in a single daisy chain for signal strength. Sometimes, depending on the fixtures and cable length, this number is less (or more).

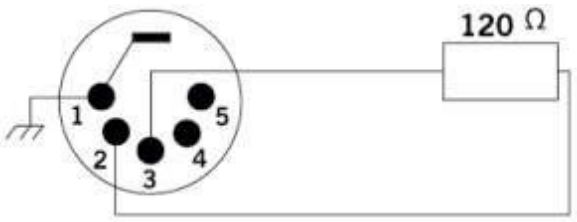
DMX Cables can be 3-pin or 5-pin. These use the same type of data, and in the 5-pin only pins 1, 2, and 3 are used. The cable should be a 2 conductor, shielded cable of at least 110 ohms resistance. Microphone cable is not DMX cable.

Please refer to the diagram below:



For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise and reflections. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below:





DMX Modes and Configuration

The Storm X 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.

DMX Channel Mode Sheet:

7 CH	14 CH	16 CH	42 CH	44 CH	Function	Channel Value	Description
1	1	1	1	1	Tilt	0-255	Tilt Movement 185°
	2	2	2	2	Tilt Fine	0-255	Tilt Fine
2	3	3	3	3	Beam Dimmer	0-255	Dimmer Control over all 4 Segments of the Strobe LED’s
3	4	4	4	4	Beam Strobe Mode	0-5	No Function
						6-42	Strobe 1 – Strobe – Slow to Fast
						43-85	Strobe 2 – Pulse – Slow to Fast
						86-128	Strobe 3 – Flash – Slow to Fast
						129-171	Strobe 4 – Flash2 –

7 CH	14 CH	16 CH	42 CH	44 CH	Function	Channel Value	Description
							Slow to Fast
						172-214	Strobe 1 – Triple – Slow to Fast
						215-255	Strobe 1 – Pulse Down – Slow to Fast
	5	5	5	5	Reserved		No Function
	6	6	6	6	Beam Macro	0-15	No Function
						16-57	Beam Macro 1 - ON
						58-99	Beam Macro 2 – Right to Left
						100-141	Beam Macro 3 - Left to Right
						142-183	Beam Macro 4 - In/Out
						184-225	Beam Macro 5 – Left to Right Build
						226-255	Beam Macro 6 – Right to Left Build
4	7	7	7	7	Plate Red	0-255	Red LED’s (Entire Fixture)
5	8	8	8	8	Plate Green	0-255	Green LED’s (Entire Fixture)
6	9	9	9	9	Plate Blue	0-255	Green LED’s (Entire Fixture)
7	10	10	10	10	Plate Strobe	0-255	Plate Strobe, Slow to Fast
	11	11	11	11	Plate Macro	0-4	No Function
						5-9, 10-14….250-254, 255	Plate Macro 1-51. Plate macros are animations that play on the segments of the RGB LED’s. The color may be set with the next channel, and it can layer on top of a single color on the “Entire Fixture” RGB channels.

7 CH	14 CH	16 CH	42 CH	44 CH	Function	Channel Value	Description
	12	12	12	12	Plate Macro Color	0-255	Plate Macro Hue control, variable.
	13	13	13	13	Plate Macro Speed	0-255	Slow to Fast
	14	14	14	14	Plate Dimmer	0-255	Intensity control over all RGB segments.
			15	15	Beam Pixel 1 Intensity	0-255	Intensity Control for Beam Pixel 1
			16	16	Beam Pixel 2 Intensity	0-255	Intensity Control for Beam Pixel 2
			17	17	Beam Pixel 3 Intensity	0-255	Intensity Control for Beam Pixel 3
			18	18	Beam Pixel 4 Intensity	0-255	Intensity Control for Beam Pixel 4
			19	19	Plate Segment 1 Red	0-255	Plate Segment 1 Red
			20	20	Plate Segment 1 Green	0-255	Plate Segment 1 Green
			21	21	Plate Segment 1 Blue	0-255	Plate Segment 1 Blue
			22	22	Plate Segment 2 Red	0-255	Plate Segment 2 Red
			23	23	Plate Segment 2 Green	0-255	Plate Segment 2 Green
			24	24	Plate Segment 2 Blue	0-255	Plate Segment 2 Blue
			25	25	Plate Segment 3 Red	0-255	Plate Segment 3 Red
			26	26	Plate Segment 3	0-255	Plate Segment 3 Green

7 CH	14 CH	16 CH	42 CH	44 CH	Function	Channel Value	Description
					Green		
			27	27	Plate Segment 3 Blue	0-255	Plate Segment 3 Blue
			28	28	Plate Segment 4 Red	0-255	Plate Segment 4 Red
			29	29	Plate Segment 4 Green	0-255	Plate Segment 4 Green
			30	30	Plate Segment 4 Blue	0-255	Plate Segment 4 Blue
			31	31	Plate Segment 5 Red	0-255	Plate Segment 5 Red
			32	32	Plate Segment 5 Green	0-255	Plate Segment 5 Green
			33	33	Plate Segment 5 Blue	0-255	Plate Segment 5 Blue
			34	34	Plate Segment 6 Red	0-255	Plate Segment 6 Red
			35	35	Plate Segment 6 Green	0-255	Plate Segment 6 Green
			36	36	Plate Segment 6 Blue	0-255	Plate Segment 6 Blue
			37	37	Plate Segment 7 Red	0-255	Plate Segment 7 Red
			38	38	Plate Segment 7 Green	0-255	Plate Segment 7 Green
			39	39	Plate	0-255	Plate Segment 7 Blue

7 CH	14 CH	16 CH	42 CH	44 CH	Function	Channel Value	Description
					Segment 7 Blue		
			40	40	Plate Segment 8 Red	0-255	Plate Segment 8 Red
			41	41	Plate Segment 8 Green	0-255	Plate Segment 8 Green
			42	42	Plate Segment 8 Blue	0-255	Plate Segment 8 Blue
		15		43	Tilt Speed	0-255	Tilt Speed, Fast to Slow
		16		44	Dimmer Speed	0-255	Dimmer Speed, Fast to Slow

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

- Strobe Panel LED’s: 480 x .5w RGB LED’s in 8 segments
- Strobe Center LED’s: 144 x 5w 6500k Cool-White LED’s in 4 Segments
- Movement: 16bit Tilt, 185°
- Control: USITT DMX512, RDM
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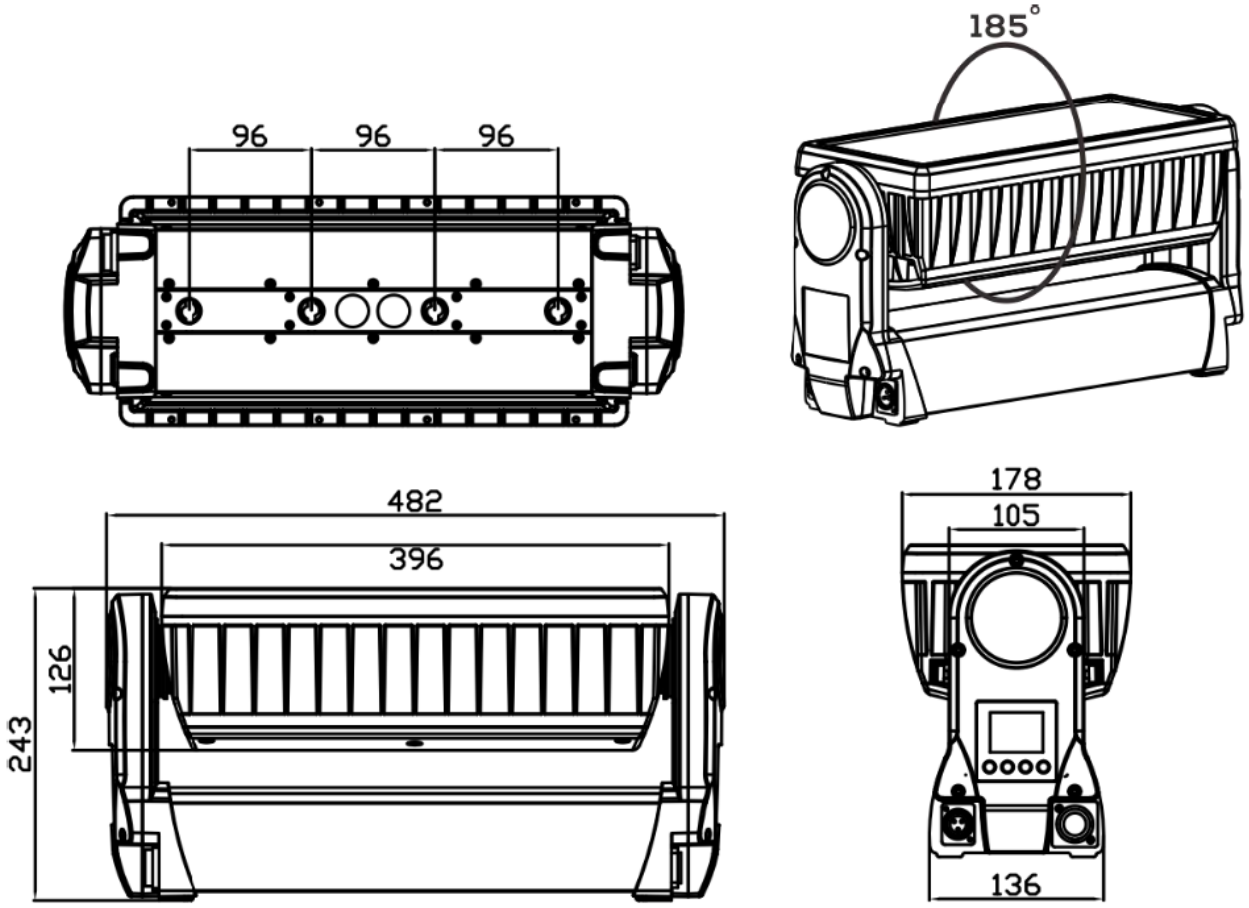
- 1000w MAX
- Temperature Range: -22° F to 122° F
- Dimensions: 18.9” x 9.0” x 9.5”
- Weight: 22.5lbs

Dimensional Drawings (in mm):



5. Photometrics

All Brightness Measurements below are in FC

Distance	Center Point Brightness (FULL)	Center Point Brightness (White Strobe Tube Only)	Center Point Brightness (Red)	Center Point Brightness (Green)	Center Point Brightness (Blue)
5’	1400	1040	26	66	15
10’	371	271	9	21	5
15’	138	125	7	14	2
20’	92	67	4	6	1
25’	45	46	2	3	1
30’	34	31	1	2	--

CRI, TM-30, and Spectral Distribution