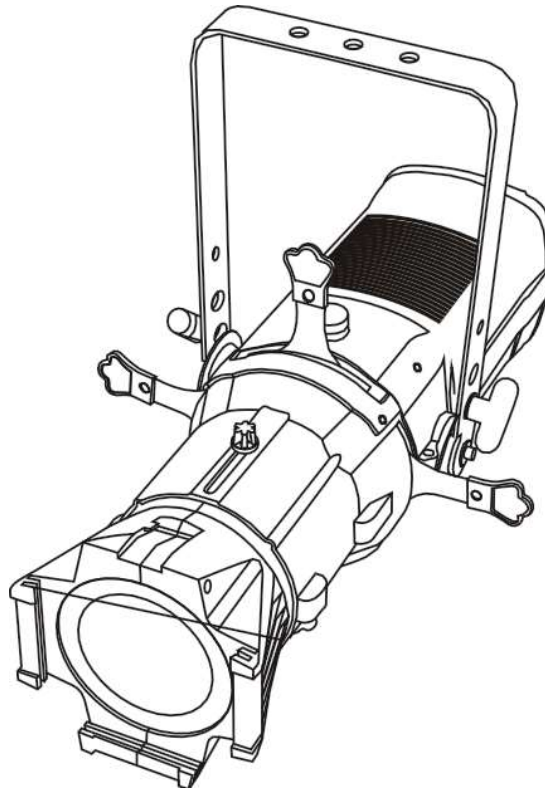


LED Leko 200

RGBW 200w LED Spot



User Manual

Table of Contents

1. Introduction and Setup.....	3
Unpacking and In the Box.....	3
Mounting and Operation.....	3
Safety Precautions.....	3
Customer Support.....	5
2. Setup and Operation.....	6
Using the LCD Menu and Buttons.....	6
DMX Setup.....	7
DMX Basics.....	7
DMX Wiring.....	7
DMX Modes and Configuration.....	9
3. Maintenance.....	11
Routine Maintenance.....	11
Troubleshooting Problems.....	11
4. Technical Specifications.....	12
Photometric Reports.....	13

1. Introduction and Setup

Unpacking and In the Box

Thank you for choosing our LED Leko 200 RGBW. 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 receive:

- LED Leko 200 RGBW: 1
- DMX Cable: 1
- Power Cable 1
- User Manual 1

Mounting and Operation

Use a clamp rated for the full weight of the LED Leko 200 RGBW 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.

Safety Precautions

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.

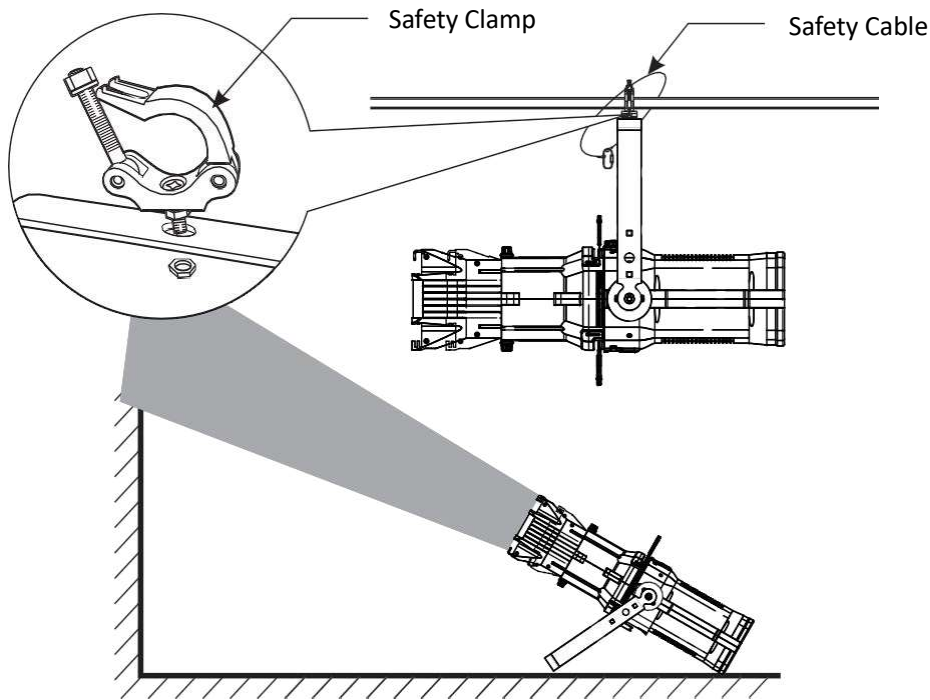
Before mounting the fixture to any surface, make sure that the installation area can hold a minimum point load of 10 items the device's weight.

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

Do not clamp the safety cable to the U bracket or clamp. That is not a secondary safety point.

A secondary safety point is any point that will adequately hold the led profile spotlight if the clamp fails.

Then the safety cable would be the backup and stop the fixture from falling to the ground. So do NOT fix the safety cable to the same place that the C-Clamp is attached



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.

- Don't try to modify the fixture without any instruction by the manufacturer or the appointed repairing agencies.
- 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

Menu	Sub Menu	Display	Key Operation
Standard channel mode (8 channel)		DMX(8CH) Addr:001	Press UP/DOWN to change the DMX address for the channel mode selected.
Simple channel mode (4 channel)		DMX(4CH) Addr:001	Press UP/DOWN to change the DMX address for the channel mode selected.
Static mode	Dimmer (warm white)	Static > Warm:000	Press "UP/DOWN" to change brightness of Warm White LED. Press "ENTER" change to sub menu
	Dimmer (cool white)	Static > Cool:000	Press "UP/DOWN" to change brightness of cool white LED. Press "ENTER" change to sub menu
	Strobe	Static > Strob:00	Press UP/DOWN to change the speed of strobe Press "ENTER" change to sub menu
Temperature control	The current temperature	Temp > Curr: 0	Press "ENTER" change to sub menu
	Setting protection of temperature	Temp > Top :080	Press UP/DOWN to change the temperature Press "ENTER" change to sub menu
Revert to default settings		Reset	Press "ENTER" , and press password as below
		Reset Pwd:	Press UP/DOWN to input password, each time you press the password, it will show "*"
		Reset Pwd:****	Press "ENTER" to confirm password. It will revert to default setting once the password is correct, otherwise it will delete all the "*"

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.

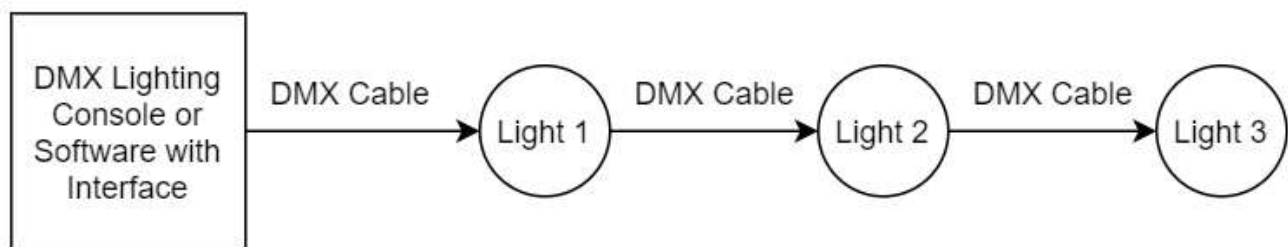
Multiple sets of 512 “universes” may be used. Only 1 universe will travel on a DMX cable, but through networked DMX (Art-Net or sACN E1.31), many universes can travel over a network.

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.

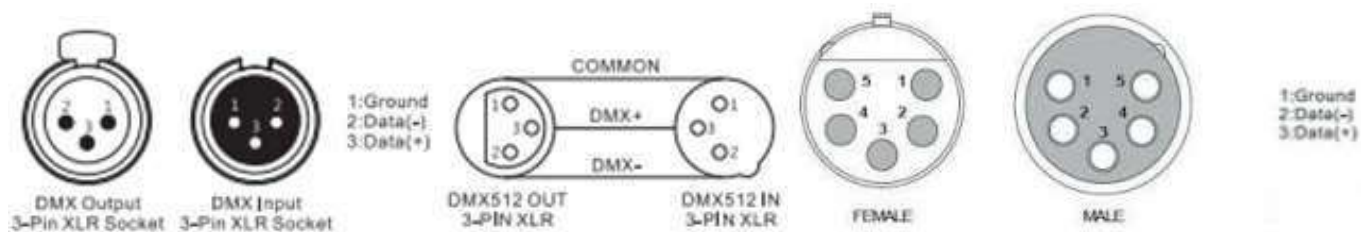
You may then connect your next fixture to the output of your first light, and continue the chain.



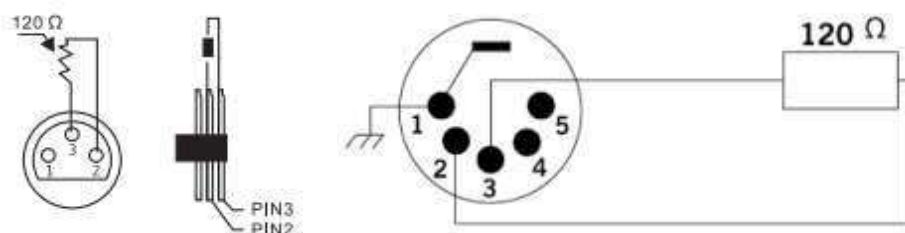
32 Fixture Rule – DMX only allows you to connect up to 32 fixtures in a single daisy chain for signal strength. Sometimes, depending on the fixtures and cable length, this number is less (or more).

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

LED Leko 200 RGBW 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:

On the left side of the sheet you will see the different modes and which channel corresponds to each function listed on the right in the given mode.

4CH	8CH	Function	Channel Value	Description
	1	Dimmer	0-255	Master Dimmer
1	2	Red	0-255	Red Dimmer
2	3	Green	0-255	Green Dimmer
3	4	Blue	0-255	Blue Dimmer
4	5	White	0-255	White Dimmer
	6	CTO	0-30	No Effect
			31-200	
			201-205	3200k
			250-255	Color Temperature (10,000K)
	7	Strobe	0-10	No Strobe
			11-255	Speed of Strobe (255 is the Fastest)
	8	Dimmer Speed	0-20	Speed of Dimmer 4 (the slowest and softest)
			21-40	Speed of Dimmer 3
			41-60	Speed of Dimmer 2
			61-80	Speed of Dimmer 1
			81-99	Speed of Dimmer off (fastest and no delay)
			100-109	Inner Program 1
			...	Each 10 data is a program
			200-240	Color-Change, Sound-Active Mode
			241-255	Strobe, Sound-Active Mode

3. Maintenance

Routine Maintenance

Fan Cleaning

Periodically do a visual inspection of the fans. If they are dirty, power off the unit and use a small electronics vacuum to clean the fans out. Do not use a can of C02 or an Air Compressor. These will simply blow the dust into the unit and may leave other residue.

Front Lens and Shutter Blade Cleaning

The front lens should be cleaned so that light output is maintained. The shutter blades may also occasionally need cleaning.

With the light powered off, use a moist, lint-free cloth. Never use alcohol or solvents to clean the fixture.

Never spray any cleaners on the fixture.

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:

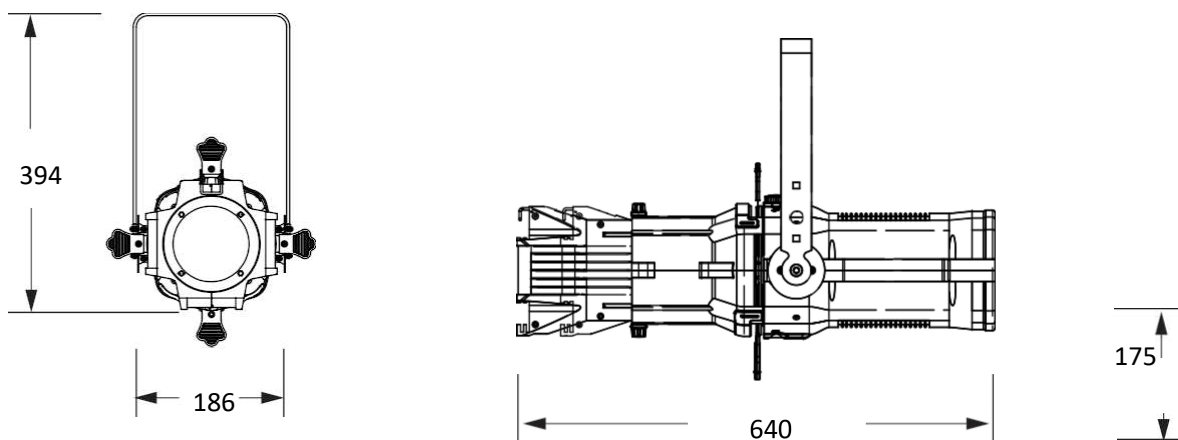
- Check that the unit is plugged in to a working power connector.
- Press the menu button to confirm that the unit is powered on. If the screen does not light up, the unit has no power.

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

- 200W COB LED (available for Red, Green, Blue, White)
- 50,000 hours life span and low power consumption
- Optimized high definition optical system for improved photometric performance and field uniformity
- Projector-quality, high contrast aspheric lens
- Glass reflector that removes greater than 90% infrared radiation (heat) and reflects greater than 95% of visible light
- Lens tube interchangeable with filed angles available for 19°/26°/36°/50°
- Housing made by high intension fireproof black ABS
- 4 metal hutters
- 0-100% Smooth and precise linear dimmer
- 25hz high speed shutter/strobe effect with variable speed
- 4/8 DMX channels USITT DMX-512
- DMX512, master-slave, and sound control or autooperation
- 4-Button LCD display
- PowerCon connector IN/OUT
- 3-Pin XLR connectors IN/OUT (5-Pin option)
- Low noise fan integrated with copper liquid cooling system
- -35~45°C Max ambient temperature
- IP20 protection rating
- Power Consumption: 260W
- Dimensions: 640(D)×186(W)×394(H)mm
- Packing Size: 30(D)×700(W)×31(H)mm
- Net Weight: 7.13kg
- Gross Weight: 8kg



Photometric Reports

19 Degree Lens – Lux at Center

	Red	Green	Blue	White	RGBW at Full	Field Width (m)
1m	2182	5807	1625	5616	13415	.3
2m	550	1538	435	1522	3571	.7
3m	279	712	196	695	1639	1
4m	146	399	111	407	961	1.3
5m	101	256	70	260	593	1.7
6m	68	177	49	183	432	2.0
7m	46	131	37	135	314	2.3
8m	37	101	26	105	246	2.7
9m	29	80	21	80	187	3.0
10m	23	64	17	57	150	3.3
15m	14	36	9	35	88	5.0

36 Degree Lens – Lux at Center

	Red	Green	Blue	White	RGBW at Full	Field Width (m)
1m	1695	4392	1242	4210	11567	.6
2m	484	1290	355	1141	3387	1.3
3m	322	618	173	521	1666	2.0
4m	133	359	96	305	967	2.5
5m	90	237	63	195	630	3.2
6m	58	154	45	137	443	3.9
7m	45	124	34	101	327	4.5
8m	35	98	29	83	270	5.2
9m	32	82	22	62	217	5.8
10m	25	69	19	31	187	6.5
15m	13	35	9	26	96	9.7