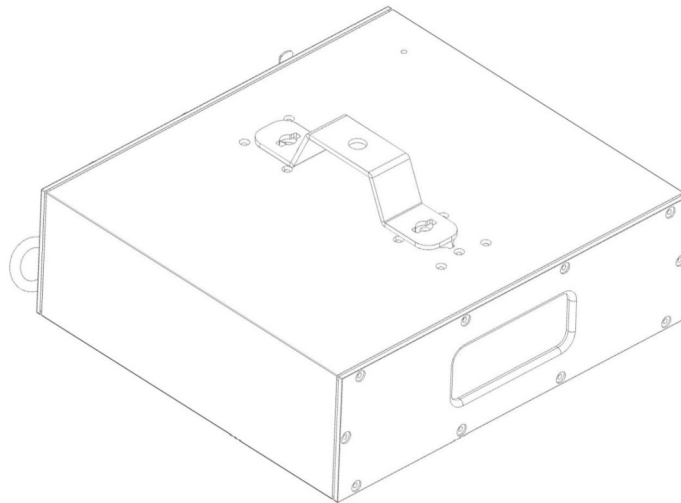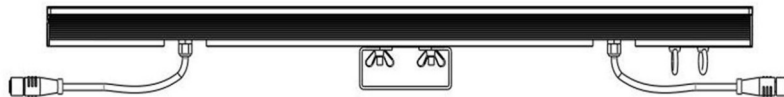# Pixel Strip IP System

IP-65 Pixel Strip System with Art-Net and DMX control

User Manual

Table of Contents

1. Introduction and Setup

Unpacking and In the Box

Thank you for choosing our Pixel Strip IP. 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:
- Pixel Strip IP Driver: 1
- PowerCon Cable: 1
- Network Cable   1

This manual cover the operation of the Pixel Strip IP driver, which can control up to 32 1m strips with 80 LEDs/meter.

Mounting and Operation

Use a clamp rated for the full weight of the Pixel Strip IP to hang the fixture from the mounts on the rear of the fixture.

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 rear of the fixture.

Features

- Control up to (32) 1m/80px strips from (4) outputs using 5pin twist-lock connectors.

- Use up to 200′ of cable per output.

- Control via ArtNet or DMX Macro Modes

- Drive Unit can be clamp mounted with included Omega bracket.

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 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 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
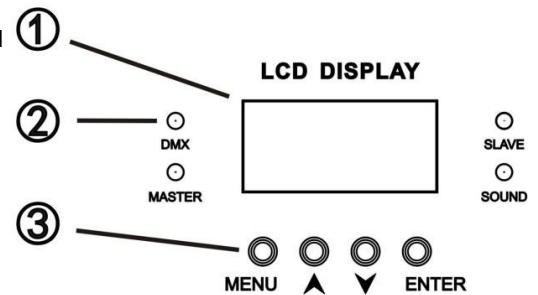
All Trussing Related Products and Accessories: 1 Year

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

2. Setup and Operation

Using the LCD Menu and Buttons

Turn on the driver, press the **MENU** button to enter the menu mode, use the **UP** and **DOWN** buttons to find the menu item required.

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.

Menu Operation

1 - Connect	DMX Address	Address	1-512 *Address when utilizing DMX mode
	Pixel Mode	1. LED SP 4*160	1 LED = 1 Pixel. New universe starts at 160 LED's (160 pixels)
		2. LED DP 2*10	2 LED's = 1 Pixel. New Universe starts at 320 LED's (160 pixels)
		3. LED FP 1*160	4 LED's = 1 Pixel. New Universe Starts at 640 LED's (1160 pixels)
		4. LED Beam Spot Server	4 Outputs for "Beam Spot" fixtures
		5. LED TJ Server	4 Outputs for "Pocket Beam" fixtures
		6. LED 3CH Mode	Pixel Strips work in 3-channel DMX mode, Red, Green. And Blue.

	3. Ethernet	IP Mode: Custom	Set the IP address of the pixel driver. Default IP Address: 2.0.0.1 Subnet Mask: 255.0.0.0
	4. Universe	Net (0-127) Sub-Uni) 007 (0-7)	Set the receiving Art-Net Universe and Sub-Universe.
2. Setup	1. White Balance	Set the Maximum Level of Red, Green, Blue, and White.	
	2. Dimmer Mode	Off, Dimmer 1-4	Set the dimmer curve. "Off" Is linear.
	LED Frequency	Set the PWM Frequency of the LED's	400Hz/600Hz/800Hz/ 1200Hz/2000Hz/4000Hz/ 8000Hz/16kHz
3. Stand Alone – **Note: Stand Alone test mode is ONLY active when in "LED 3 Channel" mode.**	1. Normal	/	No Stand-alone programming
	2 Sequence	Show01: Show18	Choose show and set Speed/Loops
	3. Static	1. Pixel Color	Set Static Pixel Color
		2. Manual Color	RGBW, set value from 0-255 manually.
	4. Lock Screen	1. Yes/No	Set Lock screen. Press "ENTER" button for 10 seconds to unlock.
5. Software Version	/	/	Displays Software version.

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.
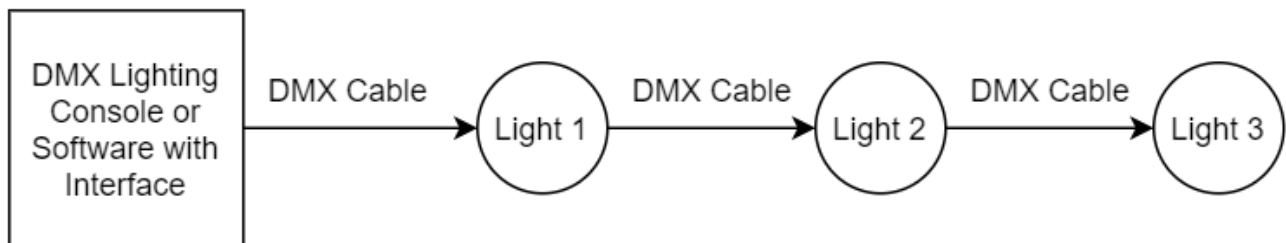
The Pixel Duriver IP uses Art-Net signal from a pixel driver or media server to control the LED pixels. In it's highest channel count mode, the Pixel Driver IP uses 16 DMX universes.

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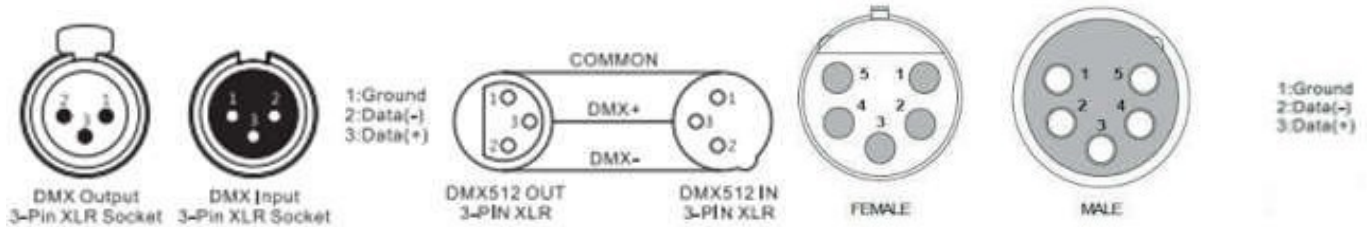
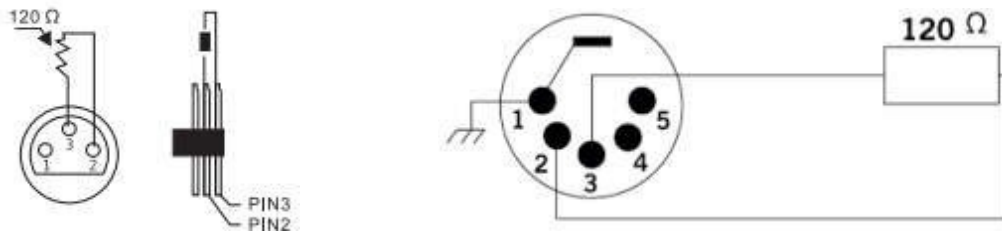You may then connect your next fixture to the output of your first light, and continue the chain.

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:
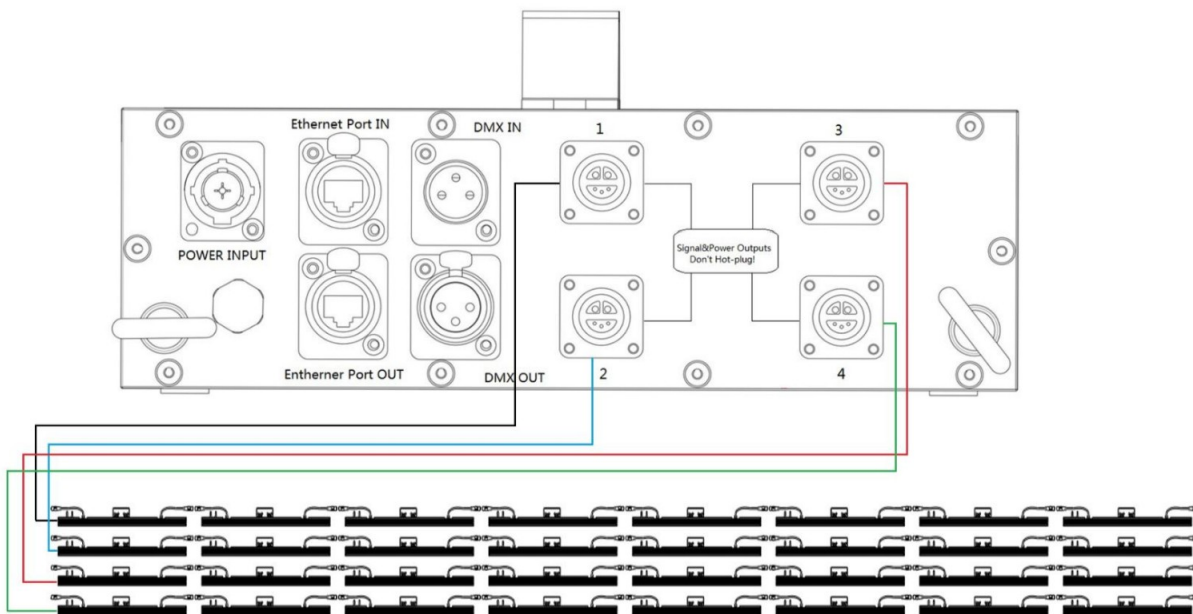
DMX Modes and Configuration

The Pixel Strip IP has multiple DMX modes, which combine pixels within the lights together.

The simplest mode to understand is mode 1. "LED SP 4*160". In this mode, each physical LED on the lights is one RGB pixel. The 80-pixel strip light therefore take 240 DMX chanels, and 2 strips or 2m of strips will be 480 DMX channels.

After 2 strips, 160 pixels, or 480 DMX channels, the next pixel strip will go to the next consecutive universe.

Therefore, port 1 is Universes 1-4, Port 2 is Universes 5-8, Port 3 is Universes 9-12, Port 4 is universes 13-16.

Up to (8) strips may be connected to each output connector with up to 200' of cable:

Do NOT use more than 200' of cable from ANY output.

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, smoky, 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

Driver Box:

- Control up to (32) 1m/80px strips from (4) outputs using 5pin twist-lock connectors.

- Control via ArtNet or DMX Macro Modes

- Drive Unit can be clamp mounted with included Omega bracket.

- Size:1000x35x100mm(with handle)

- IP Rating:IP65(Outdoor Use)

- Weight: 5.5KG

- Input – 90-260V AC

- Output – 36v 2200w Meanwell Power Supply

LED Strip

- Power Consumption: 25w at Full
- Size:1000x35x100mm(with handle)

- IP Rating:IP65(Outdoor Use)

- Weight: 2KG

- Waterproof 5pin data and power connectors included.

- Short Waterproof data and power cable included.