

User Manual

DMX1802XE Power Driver





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Description

Power Drivers are the power and control center of Springtree's Lo-Vo Architectural Lighting System. The DMX1802XE is the largest Power Driver, featuring twelve 150-watt ports for connecting Lo-Vo lighting fixtures with low-voltage cable.

Features

- Low voltage (24V) LED module control
- 12 Zones, 150w each (120w recommended)
- White and RGBW modes
- DMX
- Local control
- Color macros
- ETL Certified

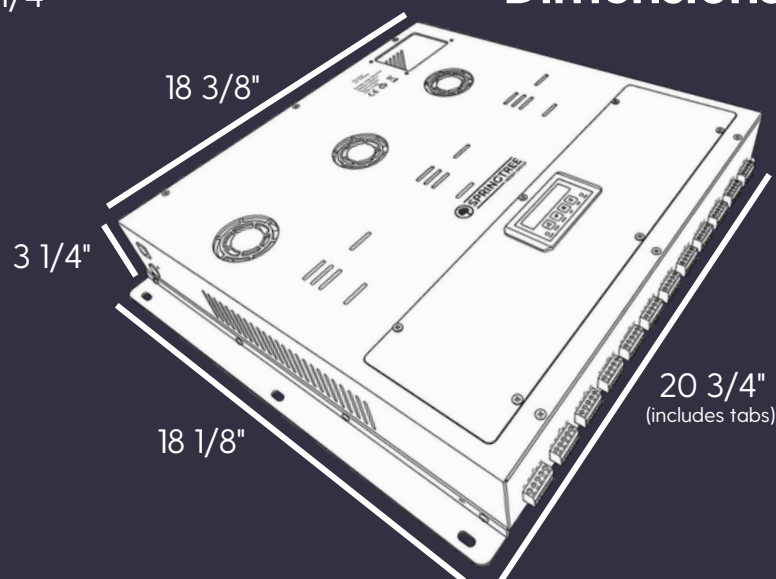
Specifications

- AC Input: 120V
- DC Output: 150W per connector, 1800W total, up to 20A
- Weight: 26.9 lbs
- Dimensions: 20 3/4" x 18 1/8" x 3 1/4"



SKU: DMX1802XE

Dimensions



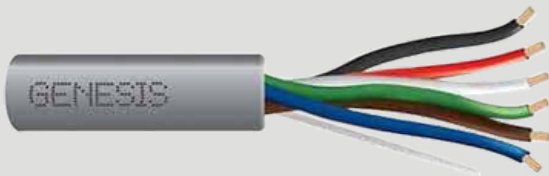
Fixtures Powered

	DMX150	DMX602XE	DMX1202XE	DMX1802XE
30Watt Spatial Flats	4	16	32	48
50Watt Spatial Flats	3	12	24	28
50Watt Spatial Flat Pendants	3	12	24	28
LED Spatial Tape	49 feet	196 feet	392 feet	459 feet
LED Spatial Bars	1	4	8	12
WW Spatial Minis	15	64	128	156
RGBWW Spatial Minis	12	48	96	120
30Watt Round LED Board	4	16	32	48
50Watt Round LED Board	3	12	24	28
12Watt LED Board	12	48	96	120

Installation

- **Do Not Wire While Hot!** The unit has to be powered off prior to connecting to fixtures.
- **Location:** To install the DMX1802XE, you will need a dry, well-ventilated area, such as an electrical closet.
- **Noise:** Lo-Vo fixtures are silent, but Power Drivers aren't. The DMX1802XE has an audible fan noise.
- **Mounting:** Utilize the 6 screw holes provided for secure mounting.
- **Space Allocation:** Ensure adequate space is left at the back for electrical and DMX wires and connectors.
- **Ventilation:** Do not obstruct any vent holes located on the top and sides of the unit.

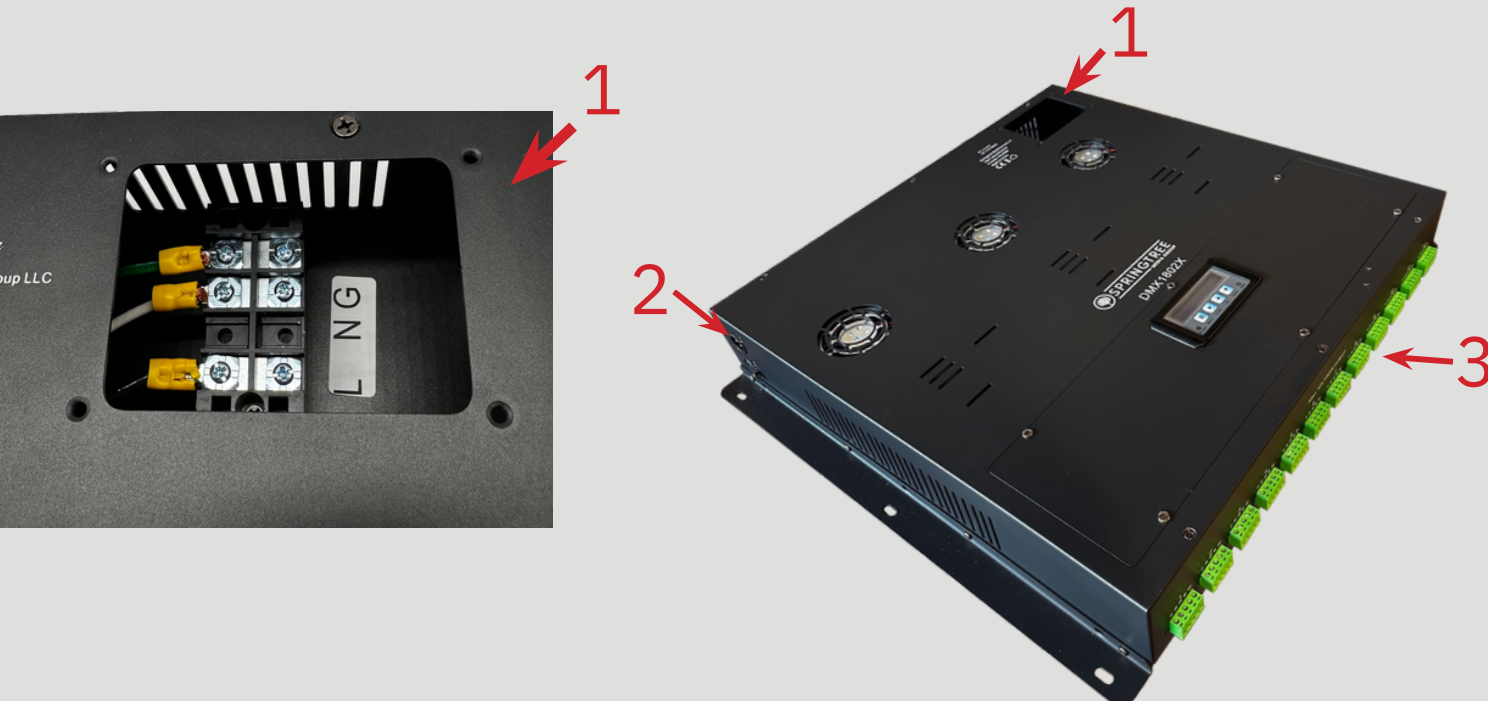
Wire Used



All RGBWW fixtures and Warm White fixtures greater than 30Watts use 18/5 low voltage cable to connect to the DMX1802XE Power Driver. All Warm White fixtures 30Watts and under use 18/2 low voltage cable.

Note: We use 18/6 cable because it's affordable and easier to source. We simply cut off the brown cable on each end.

Installation Continued



1. Electrical Connection:

- The 120V electrical connection to the DMX1802XE is made through a standard opening for a 1/2" EMT, SOJ, or armored cable connector.
- Only one DMX1802XE can be powered on a single 20amp circuit.
- Internal Wiring: Black is Hot, White is Neutral, Green is Ground

2. DMX Connection:

- Connect DMX via the 3-pin XLR connection located on the rear.
- DMX input originates from your lighting console and can be daisy-chained to additional DMX1802XE units or lighting fixtures.

3. Connection to Lo-Vo Lights:

- Utilize the Phoenix connector for connecting to Lo-Vo lights.
- A Phoenix connector is a pluggable terminal block that uses screw clamps to secure bare wires, allowing you to quickly connect and disconnect wiring from a device without soldering.
- Tip: After tightening the terminal screw, give the wire a gentle tug to confirm it is secure. Always power off the driver before wiring or adjusting any connections.
- Refer to the next page for detailed instructions on wiring each type of fixture.

Installation Continued



How to Connect RGBWW and Large WW Lights via Phoenix Connector

Use this wiring method for all RGBWW and WW lights, except 12-watt and 30-watt Warm White fixtures.

Connector 1

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 2

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 3

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 4

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 5

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 6

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 7

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 8

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 9

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 10

+ = Black
R = Red
G = Green
B = Blue
W = White

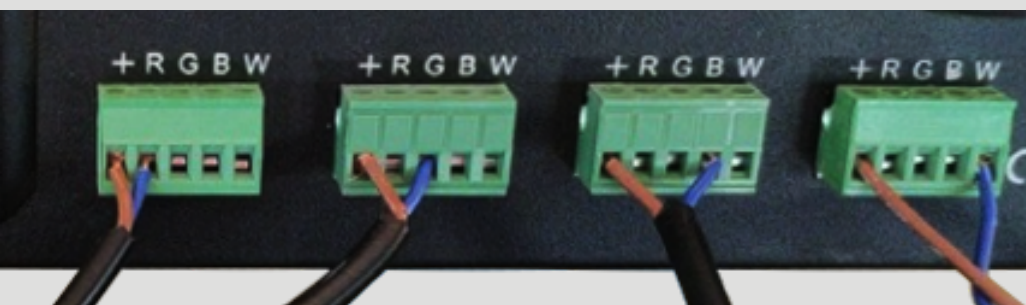
Connector 11

+ = Black
R = Red
G = Green
B = Blue
W = White

Connector 12

+ = Black
R = Red
G = Green
B = Blue
W = White

Installation Continued



How to Connect 12-Watt & 30-Watt WW Lights via Phoenix Connector

Connector 1

+ = Brown
R = Blue
G = Open
B = Open
W = Open

Connector 2

+ = Brown
R = Open
G = Blue
B = Open
W = Open

Connector 3

+ = Brown
R = Open
G = Open
B = Blue
W = Open

Connector 4

+ = Brown
R = Open
G = Open
B = Open
W = Blue

Connector 5

+ = Brown
R = Blue
G = Open
B = Open
W = Open

Connector 6

+ = Brown
R = Open
G = Blue
B = Open
W = Open

Connector 7

+ = Brown
R = Open
G = Open
B = Blue
W = Open

Connector 8

+ = Brown
R = Open
G = Open
B = Open
W = Blue

Connector 9

+ = Brown
R = Blue
G = Open
B = Open
W = Open

Connector 10

+ = Brown
R = Open
G = Blue
B = Open
W = Open

Connector 11

+ = Brown
R = Open
G = Open
B = Blue
W = Open

Connector 12

+ = Brown
R = Open
G = Open
B = Open
W = Blue

Menu

The DMX1802XE features four buttons on the front of this unit: **MENU**, **ENTER**, **UP**, and **DOWN**. Press MENU to choose your Output Mode, DMX Address, Color Macro, User Color, and PWM (pulse width modulation). There are 4 PWM modes to choose from.

PWM is the rate of current pulses to the LEDs, which affects how the lights appear to dim on video. When filming, if you notice pulses when dimming, choose the mode that appears to work best with your setup.

For DMX control after the unit has been in User or Color Macro mode, go to the DMX address window in the menu, hit enter (brackets will appear around the number), and then hit menu (brackets will disappear). This process will put the unit back into DMX mode.

Output Mode: White

Color Macro N/A	Red	000-255
	Amber	000-255
	Yellow/Warm	000-255
	Yellow	000-255
	Green	000-255
	Turquoise	000-255
	Cyan	000-255
	Blue	000-255
	Lavender	000-255
	Mauve	000-255
	Magenta	000-255
	Pink	000-255
	Warm White	000-255
	White	000-255
	Cold White	000-255
	Color Fade	000-255
	Color Jump	000-255
	Color Off	000-255

Menu - Continued

Output Mode: White

User Color	White	000-255
	N/A	000-255
	N/A	000-255
	N/A	000-255
PWM	12288	
	8192	
	4096	
	2048	
DMX Address	001-512	
Channel	1	One Zone
	2	Two Zones
	3	Three Zones
	6	Six Zones
	12	Twelve Zones

Menu - Continued

Output Mode: RGBW

Color Macro	Red	000-255
	Amber	000-255
	Yellow/Warm	000-255
	Yellow	000-255
	Green	000-255
	Turquoise	000-255
	Cyan	000-255
	Blue	000-255
	Lavender	000-255
	Mauve	000-255
	Magenta	000-255
	Pink	000-255
	Warm White	000-255
	White	000-255
	Cold White	000-255
	Color Fade	000-255
	Color Jump	000-255
	Color Off	000-255
User Color	Red	000-255
	Green	000-255
	Blue	000-255
	White	000-255
PWM	12288	
	8192	
	4096	
	2048	

Menu - Continued

Output Mode: RGBW

DMX Address 001-512

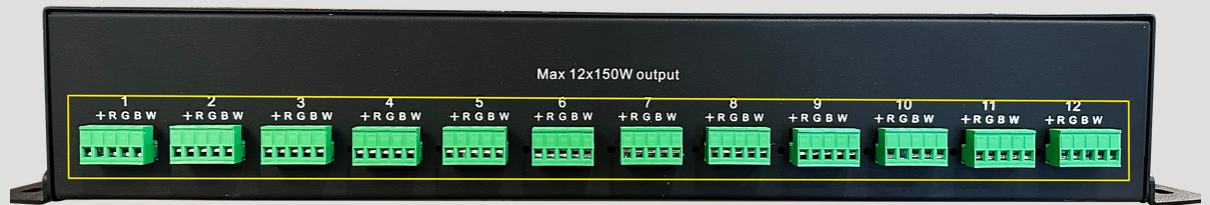
Channel	5	One Zone
	10	Two Zones
	15	Three Zones
	30	Six Zones
	60	Twelve Zones

For DMX control after the unit has been in user or color macro mode, go to the DMX address window in the menu, hit enter (brackets will appear around the number), and then hit menu (brackets will disappear). This process will put the unit back into DMX mode.

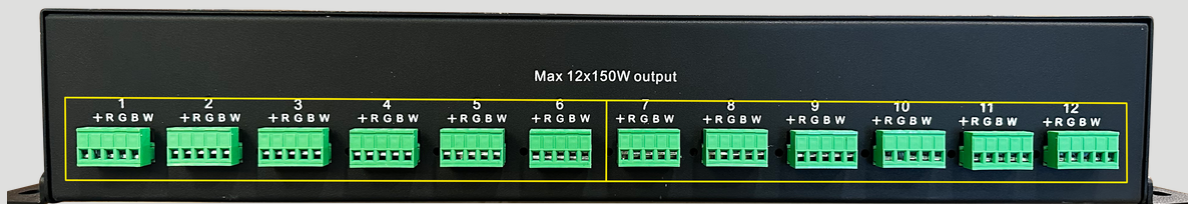
DMX Zones

When controlling the DMX1802XE via DMX, you have five options to split zones.

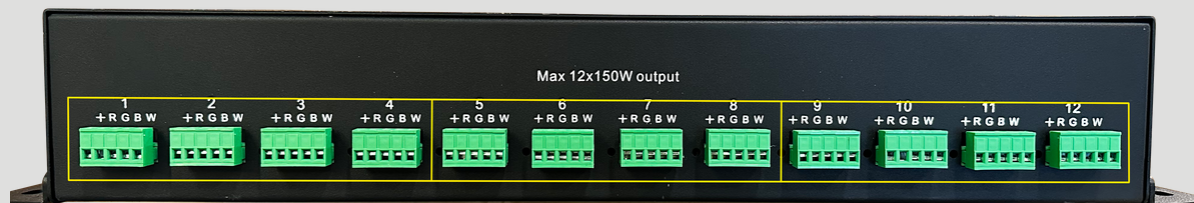
1 Zone



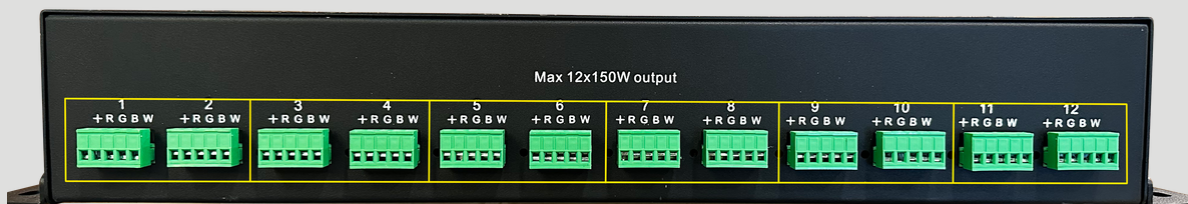
2 Zones



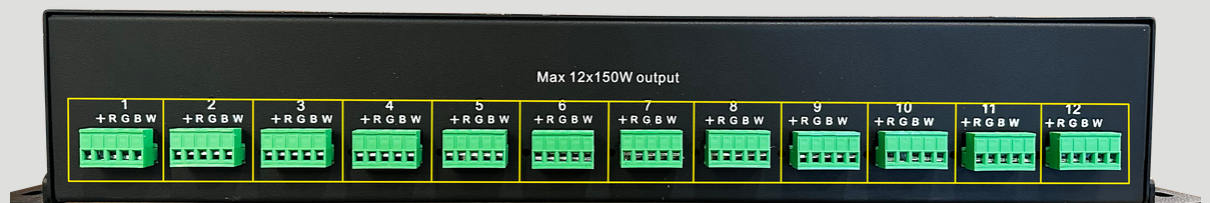
3 Zones



6 Zones



12 Zones



DMX Mode

White Mode

Channel Mode					
1 Zone	2 Zones	3 Zones	6 Zones	12 Zones	DMX Value
CH1	CH1	CH1	CH1	CH1	Intensity (Zone 1)
	CH2	CH2	CH2	CH2	Intensity (Zone 2)
		CH3	CH3	CH3	Intensity (Zone 3)
			CH4	CH4	Intensity (Zone 4)
			CH5	CH5	Intensity (Zone 5)
			CH6	CH6	Intensity (Zone 6)
				CH7	Intensity (Zone 7)
				CH8	Intensity (Zone 8)
				CH9	Intensity (Zone 9)
				CH10	Intensity (Zone 10)
				CH11	Intensity (Zone 11)
				CH12	Intensity (Zone 12)

DMX Mode

RGBW Mode

Channel Mode					
1 Zone	2 Zones	3 Zones	6 Zones	12 Zones	DMX Value
CH1	CH1	CH1	CH1	CH1	Red (Zone 1)
CH2	CH2	CH2	CH2	CH2	Green (Zone 1)
CH3	CH3	CH3	CH3	CH3	Blue (Zone 1)
CH4	CH4	CH4	CH4	CH4	White (Zone 1)
CH5	CH5	CH5	CH5	CH5	Intensity (Zone 1)
	CH6	CH6	CH6	CH6	Red (Zone 2)
	CH7	CH7	CH7	CH7	Green (Zone 2)
	CH8	CH8	CH8	CH8	Blue (Zone 2)
	CH9	CH9	CH9	CH9	White (Zone 2)
	CH10	CH10	CH10	CH10	Intensity (Zone 2)
		CH11	CH11	CH11	Red (Zone 3)
		CH12	CH12	CH12	Green (Zone 3)
		CH13	CH13	CH13	Blue (Zone 3)

DMX Mode

RGBW Mode Continued

Channel Mode					
1 Zone	2 Zones	3 Zones	6 Zones	12 Zones	DMX Value
		CH14	CH14	CH14	White (Zone 3)
		CH15	CH15	CH15	Intensity (Zone 3)
			CH16	CH16	Red (Zone 4)
			CH17	CH17	Green (Zone 4)
			CH18	CH18	Blue (Zone 4)
			CH19	CH19	White (Zone 4)
			CH20	CH20	Intensity (Zone 4)
			CH21	CH21	Red (Zone 5)
			CH22	CH22	Green (Zone 5)
			CH23	CH23	Blue (Zone 5)
			CH24	CH24	White (Zone 5)
			CH25	CH25	Intensity (Zone 5)
			CH26	CH26	Red (Zone 6)

DMX Mode

RGBW Mode Continued

Channel Mode					
1 Zone	2 Zones	3 Zones	6 Zones	12 Zones	DMX Value
			CH27	CH27	Green (Zone 6)
			CH28	CH28	Blue (Zone 6)
			CH29	CH29	White (Zone 6)
			CH30	CH30	Intensity (Zone 6)
				CH31	Red (Zone 7)
				CH32	Green (Zone 7)
				CH33	Blue (Zone 7)
				CH34	White (Zone 7)
				CH35	Intensity (Zone 7)
				CH36	Red (Zone 8)
				CH37	Green (Zone 8)
				CH38	Blue (Zone 8)
				CH39	White (Zone 8)

DMX Mode

RGBW Mode Continued

Channel Mode					
1 Zone	2 Zones	3 Zones	6 Zones	12 Zones	DMX Value
				CH40	Intensity (Zone 8)
				CH41	Red (Zone 9)
				CH42	Green (Zone 9)
				CH43	Blue (Zone 9)
				CH44	White (Zone 9)
				CH45	Intensity (Zone 9)
				CH46	Red (Zone 10)
				CH47	Green (Zone 10)
				CH48	Blue (Zone 10)
				CH49	White (Zone 10)
				CH50	Intensity (Zone 10)
				CH51	Red (Zone 11)
				CH52	Green (Zone 11)

DMX Mode

RGBW Mode Continued

Channel Mode					
1 Zone	2 Zones	3 Zones	6 Zones	12 Zones	DMX Value
				CH53	Blue (Zone 11)
				CH54	White (Zone 11)
				CH55	Intensity (Zone 11)
				CH56	Red (Zone 12)
				CH57	Green (Zone 12)
				CH58	Blue (Zone 12)
				CH59	White (Zone 12)
				CH60	Intensity (Zone 12)

Safety.

1. Do not expose this unit to moisture to reduce the risk of electrical shock or fire
2. Be sure the local power outlet matches the required voltage for your unit.
3. Disconnect from the main power before making any connection.
4. Do not remove the cover under any conditions. There are no user-serviceable parts inside.
5. Never plug this unit into a dimmer pack.
6. This power supply is intended for indoor use ONLY.
7. Always mount this unit safely and stably.

Troubleshooting

1. Check that the DMX cables and Phoenix Connectors are connected properly and are wired correctly.
2. Check that all cables are connected to the correct connectors; it does matter which way the inputs and outputs are connected.

We Are Here For You!

Springtree is all about simplifying the AV process. A big part of that is being available to answer your questions. Give us a call or fill out a contact form. We are here to help!

Contact Us



springtree.net/contact-us/



615-599-1505



[Contact Form]