

Spider810



Information specifically for:
DE-Spider810

V0

This manual contains important information.
Please read before operating fixture.

CE

IMPORTANT INFORMATION

Save original packing and documentation for warranty, service and return issues.

Limited Warranty: This warranty covers defects or malfunctions in this equipment. This warranty lasts for a period of one year from date of purchase. It is the owner's responsibility to provide invoices for proof of purchase, purchase date and dealer or distributor. If purchase date can not be provided, warranty period will start at manufacture date. It is the sole discretion of Techni-Lux to repair or replace parts or equipment. All shipping will be paid by purchaser. This warranty does not cover lamps, fuses, belts, power semiconductors, relays, cleaning, standard maintenance adjustments or normal wear items or any problem resulting from the following: improper wiring, incorrect voltage (including low or over voltage conditions and lightning), abuse, misuse, improper maintenance or an act of God or damage resulting from shipping. Warranty will be null and void if the product is altered, modified, misused, damaged, or subjected to unauthorized repairs. Lamps are covered by relevant manufacturer warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Any liability for consequential and incidental damages is expressly disclaimed. No other warranty, expressed or implied is made. Techni-Lux liability in all events is limited to, and shall not exceed, the purchase price paid.

Returning equipment and Repairs: All returns must be accompanied by a Return Merchandise Authorization (RMA) number and sent pre-paid. Contact the dealer or Techni-Lux directly to obtain an RMA. The RMA number must be clearly listed on the shipping label. Due care must be exercised in packing all merchandise to be returned. All repairs must be accompanied by a written explanation of the claimed problem or error encountered. Techni-Lux is solely responsible for determining a product's eligibility for coverage under warranty. If returning for consideration of credit, all accessories and documentation, original protective material and cartons must be included and the equipment, packing and carton must be in new resalable condition. Credit for returned merchandise will be issued at the lowest current price and is subject to a restocking fee. No returns accepted on discontinued items. Techni-Lux is not responsible for merchandise damaged in transit and reserves the right to refuse any return that is damaged by the carrier, not accompanied by a Return Authorization Number (RMA#) or sent by freight collect.

Claims: All claims must be made within seven (7) days of receipt of merchandise. Any physical damage must be reported to carrier upon receipt of merchandise.

Please record the following information for future reference:

Model Number (circle): DL-LEDPAR1C36O/B or DL-LEDPAR1C36O/S

Serial Number: _____

Dealer: _____

Date of Purchase: _____

Table of Contents

Specifications	4
Unpacking	5
Power	5
Mounting	5
Setup and Operation Modes	6
Control Panel Menu	6
<i>Control Panel Menu Table</i>	<i>6</i>
DMX Channel Layout	8
<i>7 Channel DMX Mode</i>	<i>8</i>
<i>12 Channel DMX Mode</i>	<i>9</i>
DMX512 Control	10
<i>DMX Data Connection</i>	<i>10</i>
<i>Data Terminator</i>	<i>10</i>
<i>Adapter 5-to-3 pin</i>	<i>10</i>
<i>DMX Start Address</i>	<i>11</i>
Maintenance	11
Accessory Items (sold separately)	12
Troubleshooting	12
DMX-512 Background	13

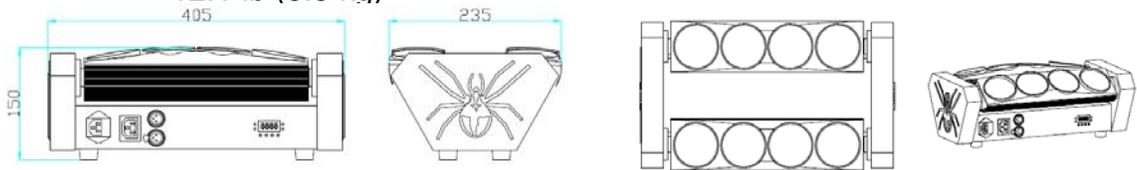
Specifications

Fixture Overview

- Motorized tilt with Dual Bars: Tilt: 85°
- Multi- Colors via RGB color mixing
- 8 x 10W CREE 4 in 1 RGBW LEDs
- Color Strobe
- Electronic Dimming 0-100%
- Auto with Master/Slave Modes
- Sound to Light Mode
- Precise DMX control using 7 or 12 channels
- 3 Pin DMX connectors
- Segmented LED display menu for settings

Physical

Color Black
Size 16 x 9.25 x 6" (405 x 235 x 150 mm)
Weight 12.1 lb (5.5 kg)



Environmental

Location Indoor IP20
Max. ambient temperature 105°F (40°C)
Min. distance to flammable surface 3.3ft (1m)
Min. distance to illuminated surface 1ft (0.3m)

Electrical

Voltage Auto Ranging 90 - 250vAC, 50-60Hz
Rated Power 120W

Control

Digital Protocol USITT DMX512 (1990)
Channels 7 or 12
Data I/O 3 Pin XLR (Cannon)
Modes DMX512, Sound, or Master/Slave

Optics

Light Source 8 x 10W CREE 4 in 1 RGBW LEDs
Beam Angle 6.5°

Rigging

Orientation Any
Mounting Points Omega adaptor included, requires clamp

Unpacking

Immediately upon receipt, carefully unpack and inspect the fixture to verify that all parts are present and have been received in good condition. If any parts appear damaged from shipping or the shipping carton shows signs of mishandling, notify the shipper immediately. Retain carton and all packing material for inspection. In the event that the merchandise is to be returned, the original carton and packing must be used. The customer will be billed for a new carton and packing if merchandise is received without the original carton and packing.

Claims

Physical damage must be reported to the Freight Carrier or Shipping Company upon receipt of merchandise. Damage incurred in shipping is the responsibility of the Freight Carrier or Shipping Company. It is the customer's obligation in the event that merchandise is received damaged, to notify the Freight Carrier or Shipping Company immediately. All other claims not related to damage incurred during shipping must be made to the Dealer or Distributor within 7 days of receiving merchandise.

Returns

Returned merchandise must be in the original packing with a Return Merchandise Authorization number (RMA) clearly listed on the shipping label. Items sent by Freight Collect or without a RMA number will be refused. Call your sales person and request a RMA prior to shipping. Be prepared to provide the model number, serial number and description of the nature of the return. Shipping damage resulting from inadequate packaging is the customer's responsibility. Customer will be charged additional shipping charges to return products received in non original packing and or cartons.

Power



Do not apply power to the fixture until power source is verified.
For protection against electric shock, fixture must be connected to suitable earth ground.
Make sure fixture is disconnected from power mains before any service.

The listed power rating is its average wattage under normal conditions. All fixtures must be powered directly from a switched circuit. This fixture cannot be run on a rheostat or dimmer circuit even if used solely for a 0% to 100% switching. Before applying power to a fixture, check that the fixture's input voltage matches the power source voltage. Consult a qualified electrician if there are any concerns about proper connection to power.

Mounting

Always consult a qualified professional when rigging. Consider access for routine maintenance when selecting a mounting position. This fixture may be mounted in any position provided there is adequate room for movement and ventilation. Mount the fixture securely using a mounting clamp and a safety cable. This fixture features dual yokes making it useful for floor standing at different angles. Always keep cords out of the way, thus preventing any trip hazards. Secure all cables properly. Do not mount where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation. Do not obstruct any vents.

Setup and Operation Modes

The following refers to the different modes that are available on this fixture via the Control Panel display. All functions are selectable from the display menu of the fixture.

- Auto Mode: The unit will automatically chase through the different colors and movements.
- Sound control - The unit will react to sound, chasing through the built-in programs.
- DMX Mode: Control of all functions with a standard DMX 512 controller.
- Master/Slave Mode: One unit will be a Master in the one of the above three modes, other units in the chain will work in synchronization with the designated master (1st unit in link).

Note:

- Must set fixture be MASTER and confirm SOUND be ON to activate Music control function
- Must set fixture be MASTER to activate Stand-alone mode

DMX Mode: Operating through a DMX controller gives the user full control over all effects and the freedom to create custom programs. To run unit in DMX mode, connect data via the 3 pin XLR connection to any standard DMX controller. Set desired DMX start address following the setup specifications that come with your DMX controller.

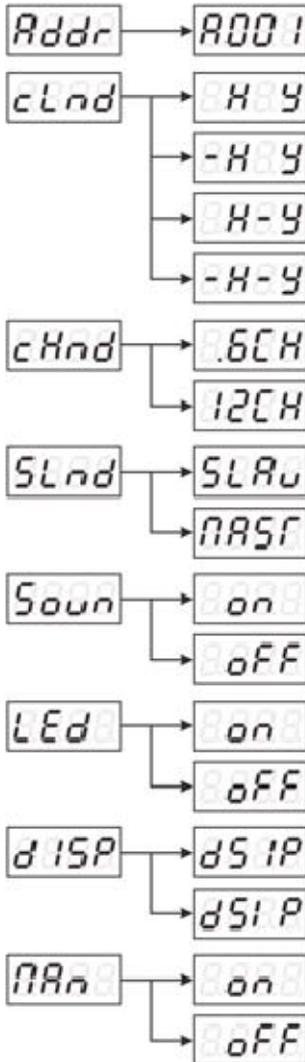
1. This function will allow you to control each individual unit's traits with a standard DMX 512 controller.
2. The unit has two DMX Modes: 7Channel or 12Channel. Please see "DMX channels/function/ description/ value" for the DMX traits.

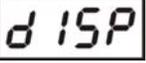
Control Panel Menu

Button	Function
<MENU>	Scrolls through the main menu and exits from the current menu or function
<UP>	Navigates upward through the menu list and increases the numeric value when in a function
<DOWN>	Navigates downward through the menu list and decreases the numeric value when in a function
<ENTER>	Enables the currently displayed menu or sets the currently selected value in to the current function

Control Panel Menu Table

The following table describes the control panel's menu options and settings.



Menu	Description
	DMX Address. Press Enter to select the start address value. Use the up/down keys to select the desired start address. Press Enter to confirm.
	Select head operating direction,"_" is reversed, Use the up/down keys to select,Press Enter to confirm
	Function allows selection of desired operating mode 7 or 12 Channels. Use the up/down keys to select,Press Enter to confirm
	Function sets Master/Slave mode. Use the up/down keys to select,Press Enter to confirm
	Function activates Sound Control. Use the up/down keys to select, Press Enter to confirm
	Function selects if panel backlight stays ON/OFF. Use the up/down keys to select,Press Enter to confirm
	Function flips display between normal or upside. Use the up/down keys to select,Press Enter to confirm
	Function select manual operation. Use the up/down keys to select ON/OFF,Press Enter to confirm

DMX Channel Layout

This fixture features 2 different DMX Channel modes: 7 or 12. Using the 12 Channel mode provides the most features, however it takes up the most channels of DMX. The different channel assignments are shown below. *Note that the channel order maybe different for each of the modes.*

7 Channel DMX Mode

Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7
Head 1/Tit	Head 2/Tit	Dimmer	Strobe	Effect	Effect Movement	built-inprogram
255 145° 60° 000	255 145° 60° 000	255 100% 0% 000	255 10 no function 000	0-7 No function 8-15 Full On 16-31 Effect 1 32-47 Effect 2 48-63 Effect 3 64-79 Effect 4 80-95 Effect 5 96-111 Effect 6 112-127 Effect 7 128-143 Effect 8 144-159 Effect 9 160-175 Effect 10 176-191 Effect 11 192-207 Effect 12 208-223 Effect 13 224-239 Effect 14 240-255 Effect 15	255 Slow Fast 000	0-127 No function 128-255 auto

12 Channel DMX Mode

Ch1	Ch2	Ch3	Ch4	Ch5	Ch6
Head 1/Tit	Head 2/Tit	Dimmer	Strobe	LED 1	LED2
255 145° 60° 000	255 145° 60° 000	255 100% 0% 000	255 10 no function 000	0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White	0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White

Ch7	Ch8	Ch9	Ch10
LED3	LED4	LED5	LED6
0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White	0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White	0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White	0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White

Ch11	Ch12
LED7	LED8
0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White	0-15 No function 16-30 Red 32-47 Green 48-63 Blue 64-79 White 80-95 Red+Green 96-111 Red+Blue 112-127 Red+White 128-143 Green+Blue 144-159 Green+White 160-175 Blue+White 176-191 Red+Green+Blue 196-207 Red+Green+White 208-223 Red+Blue+White 224-239 Green+Blue+White 240-255 Red+Green+Blue+White

DMX512 Control

Fixtures require a "Start Address" from 1 to 512, setting the first DMX channel containing data for the fixture (see DMX Background). Before addressing fixtures, consult the manual of the system's DMX controller to select a desirable addressing scheme. Valid Start Addresses range from 1 to 512. Fixtures requiring more than one channel for control will read subsequent channels up to the total number of channels required. Since this fixture requires a maximum of 6 channels of DMX, if set to a Start Address of 7 it would use data from channels: 7 and 8, 9, 10, 11, 12. Choose a Start Address so the channels used do not overlap with other fixtures. In some cases, it may be desirable to set two or more same type fixtures to the same Start Address. In this case, the fixtures will be slaved together and respond to the same data. Because all fixtures see the same data, fixtures may be set to any address without concern for the order they are connected by the DMX cables.

Note: For DMX to operate on this unit, all STANDALONE options must be set to Off.

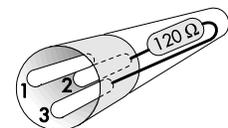
DMX Data Connection

This fixture uses 3 pin XLR type connectors and shielded twisted pair cable approved for EIA-422/EIA485 use. Fixtures are connected in Daisy Chain topography: Connection is made from the controller to the DMX-IN of the first light, then from the DMX-OUT to the DMX-IN of the next light and so on. Only one data source can be on a chain and no branching is allowed. The physical order in which the fixtures are connected is not important, use the most convenient.

**DMX-IN
XLR Connector - Plug:**



**DMX-OUT
XLR Connector - Socket:**

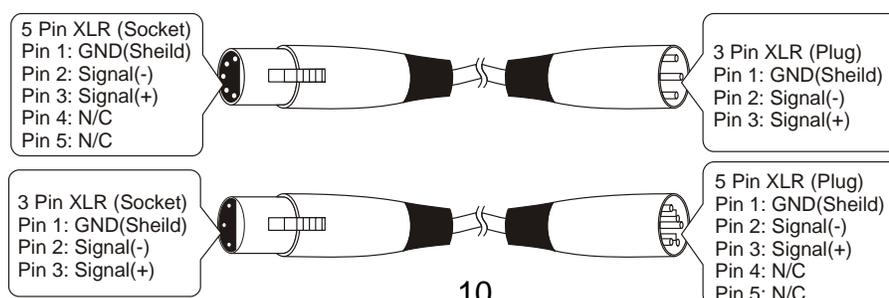


Data Terminator

A Data Terminator can be connected to the DMX-OUT of the last fixture to reduce the effects of signal noise; it is not required for all installations. To make a Terminator, connect a 120-ohm ¼ watt resistor across pin 2, Data Negative (S-) and pin 3, Data positive (S+). A qualified technician can determine if a Data Terminator is needed.

Adapter 5-to-3 pin

Systems using 5 pin DMX interfaces can be accommodated by purchasing 3-to-5 pin adapters or building adapter cables. Numbers designating each pin can be found on connectors. Converting between the two XLR types is done in a pin-to-pin fashion. Connect the shields to pin 1, then connect pin 2 to pin 2 and pin 3 to pin 3, regardless of either connector's gender or pin count. No connection is made to Pins 4 & 5.



DMX Start Address

To place the fixture in DMX mode, press the MENU key, then using the UP/DOWN keys get to the Address Menu Option. Press ENTER and using the UP/DOWN buttons, set the start address number for this particular unit in the DMX chain. Once selected, press ENTER again to save your selection. More than one fixture may have the same start address, but they will behave the same. Giving a unique start address that does not overlap with any other units allows you to individually control that fixture's features fully. Never allow channels to overlap. You will need to select the number of channels you wish the fixture to use first. Your choices are 3,4,5, or 6 channel modes. This will determine the spacing of channels you will need to avoid overlapping of channels when selecting your start addresses.

Example Select Start Addresses for 4 fixtures each requiring 6 channels of DMX (6 channel mode).

For this example, start with the first unit set to the first possible Start Address = **1**. This fixture occupies DMX channels 1 thru 6. The next DMX channel available for a Start Address is found by adding the previous fixture's Start Address to its channel requirement: $1+6=7$. To maximize channel usage, we will leave no empty channels between fixtures so the second Start Address is set to DMX channel 7 and that fixture occupies channels 7 thru 12. The third fixture will be addressed $7+6=13$ and occupy channels 13 thru 18. The last fixture is addressed $13+6=19$ and will occupy channels 19 thru 24. Thus, 4 fixtures using 6 channels each have Start Addresses of **1, 7, 13** and **19** and the next free channel in the system is $19+6=25$.

Maintenance



Make sure fixture is cool and disconnected from power mains before any service.

Weekly operating hours and environmental conditions will establish how often the fixtures need cleaning. Fixtures should be cleaned and inspected at least once a month to maintain optimum performance. Accumulation of dust and fog residue increases heat build up, can lead to malfunctions, overheating and reduction in maximum light output, reduced fixture life and over all performance. Before conducting any maintenance, disconnect fixture from power mains.

- 1) Disconnect fixture from power mains.
- 2) Use a vacuum with a soft brush to remove dust collected on external vents and internal components. If using an air compressor, use low pressures and extreme care to prevent damaging any internal parts or effects.
- 4) Clean all optical elements when the fixture is cold. Use a soft lint free cotton cloth or tissue and cleaner safe for plastics.
- 5) Inspect clamps and safety cables to ensure fixture is secure and safe.

Accessory Items (sold separately)

Order Code	Description
CLAMP-MEGA/B	Mega Heavy Duty Aluminum Clamp – Black
CLAMP-CBHALF	Half Cheeseborough Coupler 300kg Max Load
SAFETYCABLE18B	Safety Cable Black 18”
SAFETYCABLE18S	Safety Cable Silver 18”
CA-XLR3/5	Pre-made 5’ 3-pin XLR Cable
CA-XLR3/10	Pre-made 10’ 3-pin XLR Cable
CA-XLR3/25	Pre-made 25’ 3-pin XLR Cable
CA-XLR3/50	Pre-made 50’ 3-pin XLR Cable
CA-XLR3/100	Pre-made 100’ 3-pin XLR Cable
CO-XLR3M	XLR Connector 3-pin Male
CO-XLR3F	XLR Connector 3-pin Female
CO-XLRTERM3	XLR 3 Pin Data Terminator
CO-XLR3MTO5F	XLR 3 Pin Male to 5 Pin Female Adapter
CO-XLR5MTO3F	XLR 5 Pin Male to 3 Pin Female Adapter

Troubleshooting

Symptom	Possible Cause / Solution
No Power	Check for power on mains
	Check main fuse and fuse holder
Erratic / No response to DMX	Check Start Address
	Check that unit is in expected channel Mode
	Check data cables: connection and proper wiring
Incorrectly responds to DMX Diagnostic technique: Set Start Address of suspect fixture to same as working fixture. If both units function correctly, issue maybe programming.	Check Start Address
	Check for overlapping addresses
	Check Menu settings
	Check that unit is in expected channel Mode
	Power unit Off/On to reset fixture
Erratic / No response in Standalone	SOUN, MAST or SLAV must be set to "On."
	Check Scene/Chase is correctly setup in MANL
	MANL is for configuring Scenes/Chases only
	Only one Master per link, check Slave groups

DMX-512 Background

DMX-512 is a digital data transmission standard developed by the United States Institute for Theater Technology (USITT). It is designed to enable control of lighting equipment. DMX deals solely with the formatting of data for transmission and does not dictate how the data is created or used.

Under DMX, signals are transmitted in much the same way a computer modem transmits data. The Data, divided into channels, is "Framed" using a start bit, high (1), eight data bits and finally, two stop bits, both high (1). DMX uses no parity to check the integrity of the signal. Instead, DMX relies on the ultra low probability of an error occurring in the same place when the data is resent. The rate at which data is sent is fixed at 250k bps, almost four and a half times faster than a 56k modem. This speed allows all data on a DMX chain to be updated more than 44 times every second.

The transmitted data follows a specific format. DMX allows for 512 channels each with eight data bits, giving each channel the possibility of 256 values. When a data "Packet" is sent, all channels are transmitted one after another. Even if the data on a specific channel has not been changed, it must be sent. In a packet, a "start code" of all zeros is sent before the data to identify the signal as a Standard DMX transmission. This start code is transparent to the user and is handled by the controller.

The physical signals are transmitted using a twisted pair of wires and a common shield, a configuration called Balanced. The controller and all receiving equipment are connected using a "Daisy Chain" connection. The signal is jumped from the controller to a piece of DMX equipment. From there, the signal is jumped to the next piece of equipment and so on until the last piece of equipment is connected. No branches are allowed and the signal does not come back to the controller. The final piece of equipment will have only one cable connection. As a result, all equipment connected to the chain will see exactly the same signal whether it is first or last. When connecting equipment, no particular attention needs to be paid to the order in which the equipment is connected. Depending on the conditions and equipment, a line terminator may be required. If there is any question, in most circumstances the addition of a terminator will not degrade the signal. To make a terminator, attach a 120-ohm resistor between the Signal Data Negative and Signal Data Positive pins of a connector in the last piece of equipment in the chain.

The DMX Standard uses 5 pin XLR connectors. However, it is common to see fixtures with 3 pin XLR connectors as these types of balanced or "Lo-Z" cables are common in the audio industry. In either case, pin numbers are the same and carry the same signals.

Pin	Connection
1	Common (Shield)
2	Data Negative (S- or Cold)
3	Data Positive (S+ or Hot)
4	n/c (not used)
5	n/c (not used)



10900 Palmbay Drive • Orlando, FL 32824 U.S.A.
www.techni-lux.com