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# INSTALLATION INSTRUCTIONS

POWER AND CONTROL

MODEL: LS6510 &amp; LS6520

INPUT VOLTAGE: **LS6510:** 120V, 50/60Hz, 240W only **UL** US LISTED  
**LS6520:** 120-277V, 50/60Hz, 120W, 240W, 320W

## LS6510 & LS6520

Warranty void if not installed per instructions and local electrical code

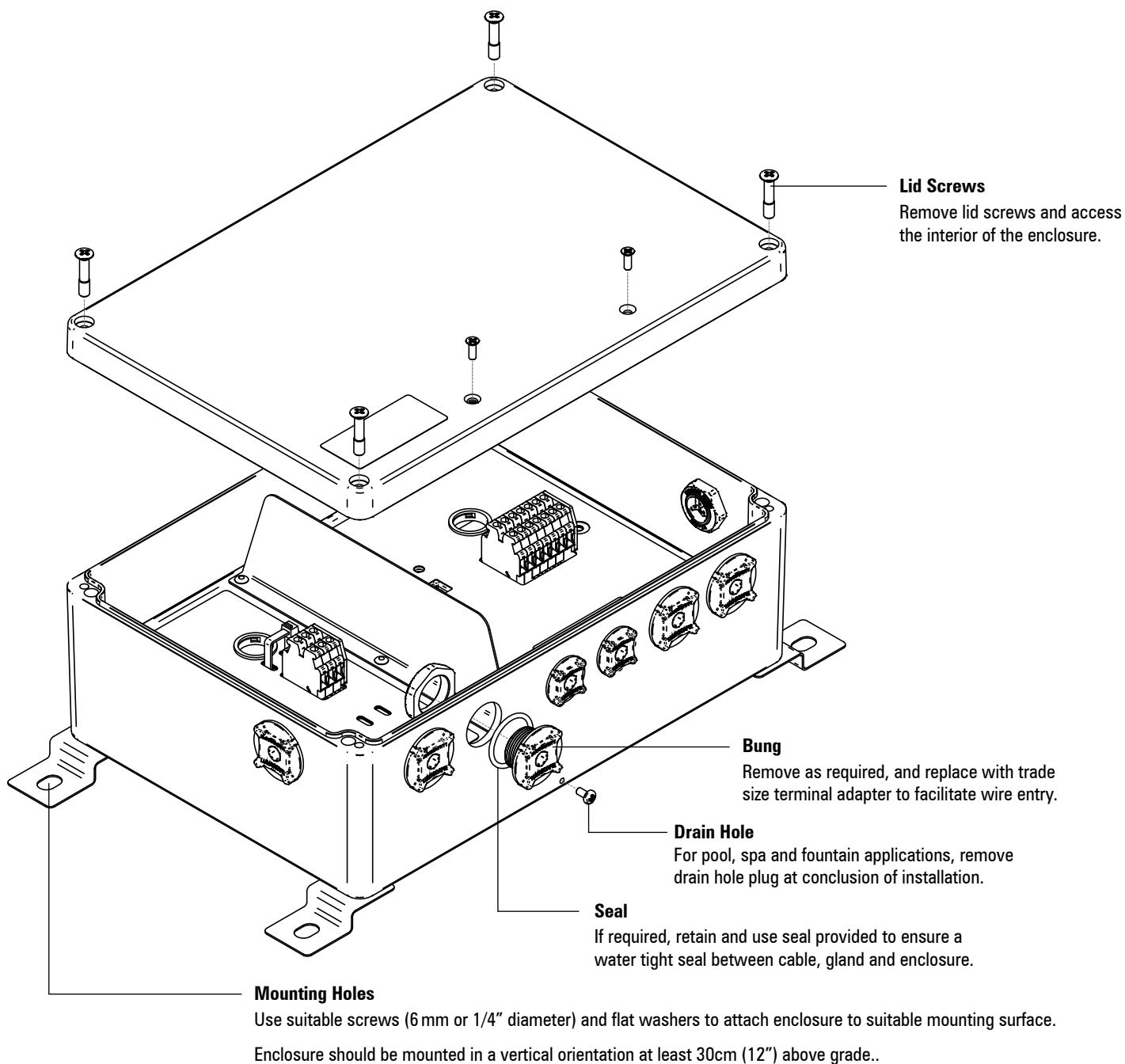
### WARNING

Install in accordance with National Electric Code, ANSI/NFPA 70 or the Canadian Electrical Code, Part I (CEC), CSA C22.1

### IMPORTANT INFORMATION

For outdoor use only.  
Mount at least 30cm (12")  
above ground.

Please allow about 90 seconds for  
power supply control electronics to  
initialize upon startup.



Should you experience any difficulty, please contact Lumascape directly: phone (866) 695-5862 or email [info@lumascape.com](mailto:info@lumascape.com)

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# Overview PowerSync™ Output

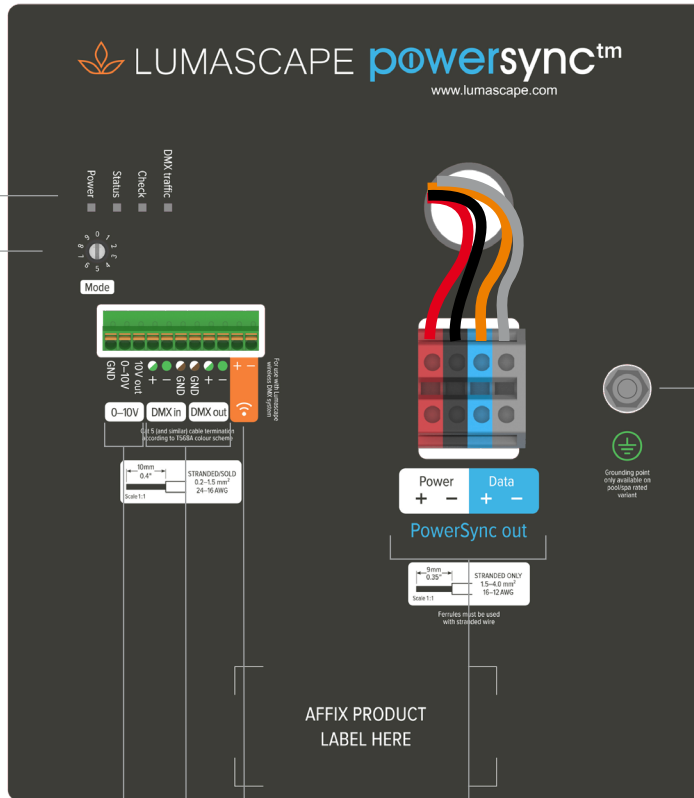
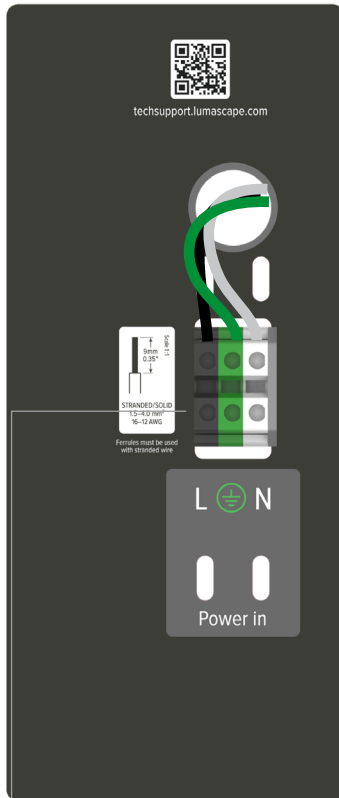
## Mode Switch

Mode	Designation
0	DMX / RDM
1	DMX / RDM with SIP
2	-
3	0-10 V dimming
4	-
5	0-10 V dimming (inverted)
6	-
7	TEST: 4-channel cycle
8	TEST: All channels ON
9	TEST: All channels OFF

## LED Indicator Lights

Indicator LED	Colour / State	Description
Power	Off	Circuit is unpowered
	Red (Solid)	Circuit is powered
Status	Off	Relay Off, Circuit unpowered, Circuit powered but microcontroller not completed startup
	Green (Solid)	Relay On – Circuit operational
	Red (Solid)	Relay Off – short detected
Check	Off	Circuit is unpowered, Circuit is powered and no PowerSync fault detected
	Red (Solid)	PowerSync fault detected
DMX Traffic	Blue (flashing rapidly)	0-10V Mode: Flashing between 1Hz – 20Hz, equivalent to normalised 0-10V input
		DMX/RDM Mode: DMX/RDM traffic is present
	Blue (1s on, 4s off)	DMX/RDM Mode: No DMX/RDM traffic is present, heartbeat indicator

**Secondary Circuit Grounding Terminal**  
Use ring terminal (sized to suit wire gauge and 3/16" stud) to connect secondary grounding circuit. Connect only if directed by luminaire manufacturers installation instructions



## Power in

Label	Designation
L	Live 120V LS6510
	120-277V LS6520
⊕	Earth
N	Neutral

## Wireless DMX system (optional)

Label	Designation
+	Power + (48V DC)
-	Power -

For use with Lumascape wireless DMX system only.

## PowerSync™ Out

Label	Luminaire Wire Colour	Designation
Power +	Red	Power +
Power -	Black	Power -
Data +	Orange	Data +
Data -	Grey	Data -

## DMX in/DMX out

Label	Designation	Pin out			Cat5 wire colour	
		3-pin XLR	5-pin XLR	RJ45	T568A	T568B
+	Data +	3	3	1	White / Green	White / Orange
-	Data -	2	2	2	Green	Orange
GND	Ground	1	1	7	White / Brown	White / Brown

Note - when multiple DMX devices are connected, the last one in the string must be terminated using LS6407 DMX Terminator across the D+ and D-.

## 0-10V in

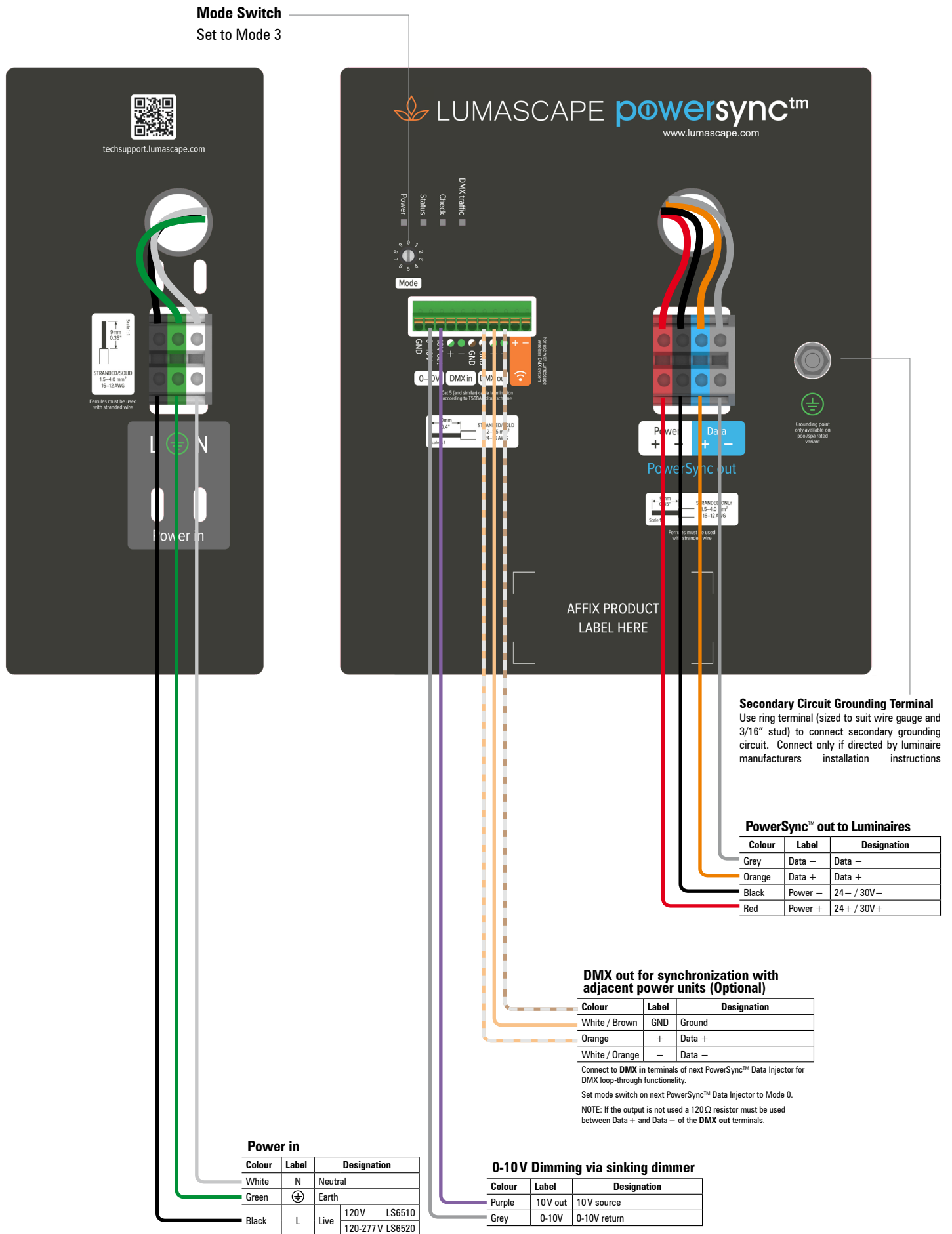
Label	Designation	
	Use with 0-10V Sinking Dimmers	Use with 0-10V Sourcing Dimmers
10V	10V source (purple wire)	Not connected
0-10V	0-10V return (grey wire)	0-10V +
GND	Not connected	0-10V -

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# 0-10V / DMX Synchronization for PowerSync™ Output



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# Overview PWM Dimming

## Rotary Switches

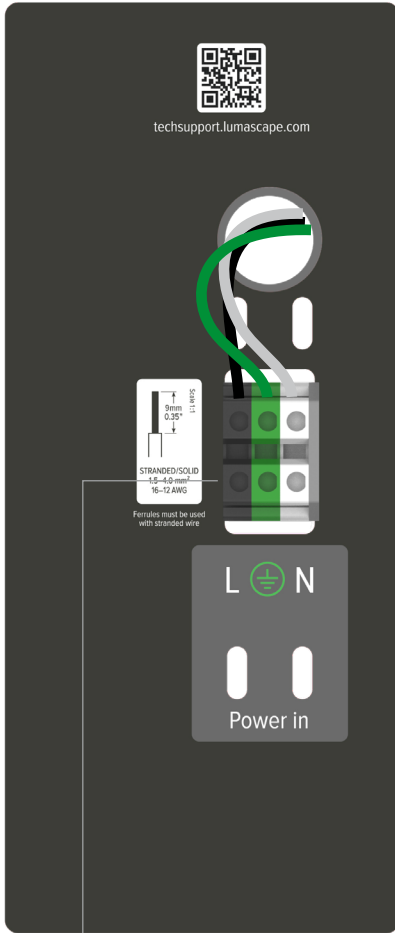
Refer to next page for details

## Status Indicators

Refer to next page for details

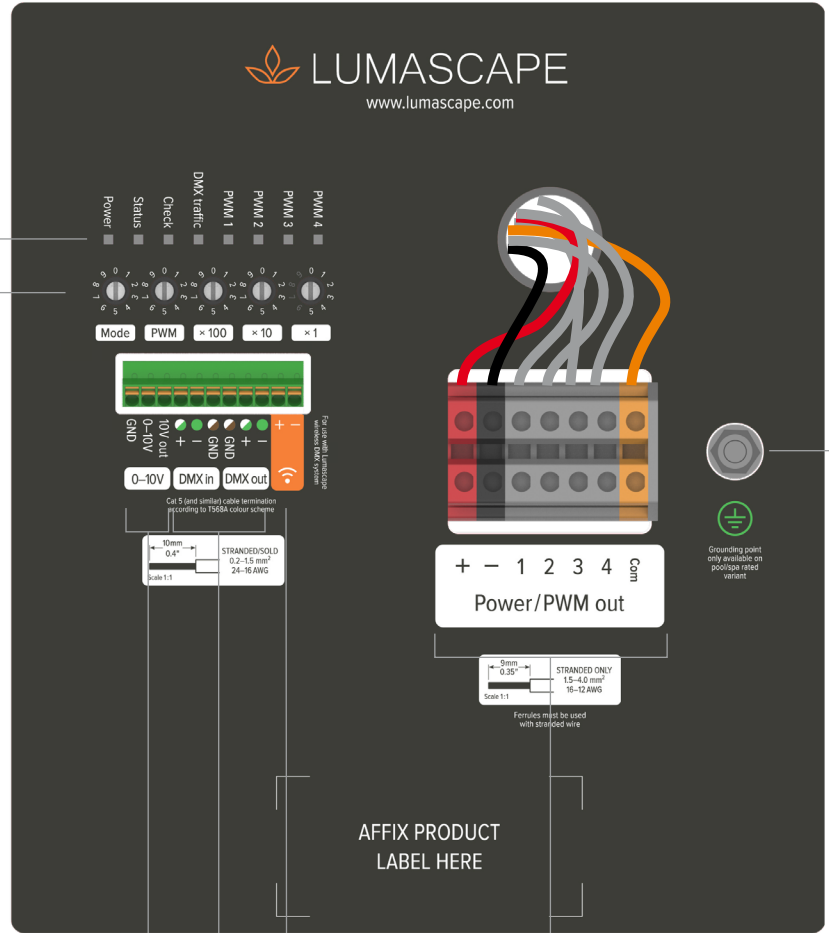
## Secondary Circuit Grounding Terminal

Use ring terminal (sized to suit wire gauge and 3/16" stud) to connect secondary grounding circuit. Connect only if directed by luminaire manufacturers installation instructions



### Power in

Label	Designation	
L	Live	120V LS6510 120-277V LS6520
⊕	Earth	
N	Neutral	



AFFIX PRODUCT LABEL HERE

### Wireless DMX system (optional)

Label	Designation
+	Power + (48 V DC)
-	Power -

For use with Lumascope wireless DMX system only.

### Power/PWM out

Label	Luminaire Wire Colour	Designation
+	Red	Power +
-	Black	Power -
1	Grey	Channel 1 -
2	Grey	Channel 2 -
3	Grey	Channel 3 -
4	Grey	Channel 4 -
GND	Orange	Common +

### DMX in/DMX out

Label	Designation	Pin out			Cat 5 wire colour	
		3-pin XLR	5-pin XLR	RJ45	T568A	T568B
+	Data +	3	3	1	White / Green	White / Orange
-	Data -	2	2	2	Green	Orange
GND	Ground	1	1	7	White / Brown	White / Brown

Note - when multiple DMX devices are connected, the last one in the string must be terminated using LS6407 DMX Terminator across the D+ and D-.

### 0-10V in

Label	Designation	
	Use with 0-10V Sinking Dimmers	Use with 0-10V Sourcing Dimmers
10V	10V source (purple wire)	Not connected
0-10V	0-10V return (grey wire)	0-10V+
GND	Not connected	0-10V-

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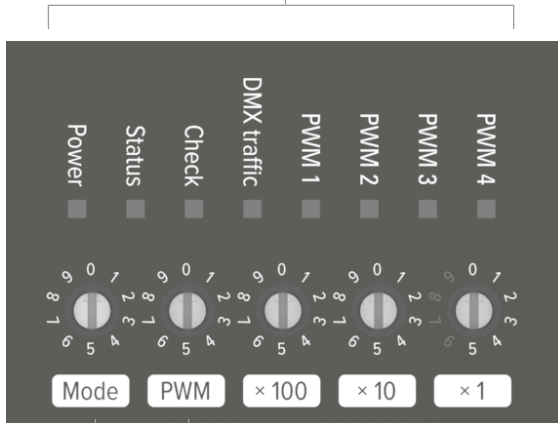
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# Overview PWM Dimming - Switches and LED Indicators

## LED Indicator Lights

Indicator LED	Colour / State	Description
Power	Off	Circuit is unpowered
	Red (Solid)	Circuit is powered
Status	Off	Relay Off, Circuit unpowered, Circuit powered but microcontroller not completed startup
	Green (Solid)	Relay On – Circuit operational
	Red (Solid)	Relay Off – short detected
Check	Off	Circuit is unpowered, Circuit is powered and no PowerSync fault detected
	Red (Solid)	PowerSync fault detected
DMX Traffic	Blue (flashing rapidly)	0-10V Mode: Flashing between 1Hz – 20Hz, equivalent to normalised 0-10V input
		DMX/RDM Mode: DMX/RDM traffic is present
	Blue (1s on, 4s off)	DMX/RDM Mode: No DMX/RDM traffic is present, heartbeat indicator
PWM 1-4	Off	Circuit is unpowered
	Red (Solid, dimming)	Non-inverted PWM output, dimming proportional to output signal
	Green (Solid, dimming)	Inverted PWM output, dimming proportional to output signal



### x100 / x10 / x1 Switches

Set the DMX start address using the x 100, x 10 and x1 mode switches. x 100 is used to set the hundreds column, x 10 the tens and x 1 the units. Valid addresses are in the range 1-509.

### PWM Switch

Mode	Designation
0	250 Hz
1	500 Hz
2	1000 Hz
3	1500 Hz
4	2000 Hz
5	250 Hz inverted
6	500 Hz inverted
7	1000 Hz inverted
8	1500 Hz inverted
9	2000 Hz inverted

### Mode Switch

Mode	Designation
0	DMX / RDM
1	DMX / RDM with SIP
2	-
3	0-10 V dimming
4	-
5	0-10 V dimming (inverted)
6	-
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