

# LUMASCAPE PowerSync PS4 Data Injector LS6550 Instruction Manual

[Home](#) » [LUMASCAPE](#) » LUMASCAPE PowerSync PS4 Data Injector LS6550 Instruction Manual 

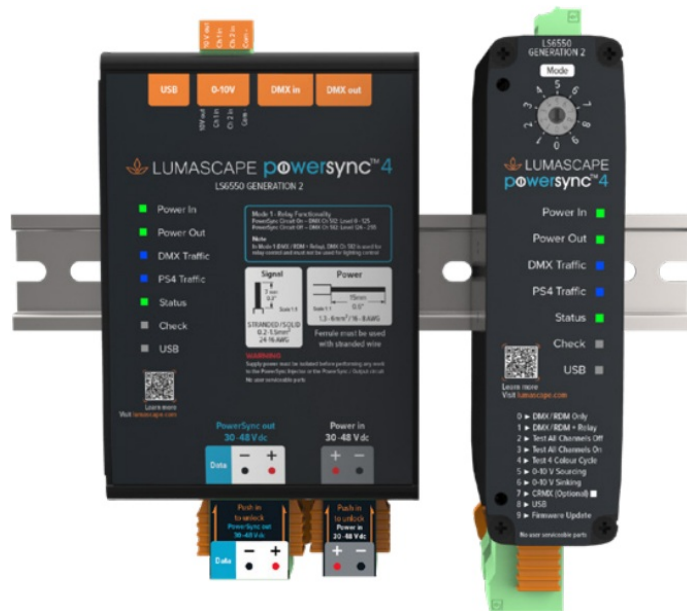
## Contents

- [1 PowerSync® PS4 Data Injector LS6550 Installation Instructions](#)
  - [1.1 GENERATION 2](#)
  - [1.2 READ ALL SAFETY INSTRUCTIONS FIRST](#)
  - [1.3 Control via 0-10 V or PWM Input](#)
  - [1.4 PSU Connections](#)
  - [1.5 Connecting Luminaires via PowerSync Leader Cable](#)
  - [1.6 10 Position Mode Switch](#)
  - [1.7 Indicator Lights](#)
    - [1.7.1 INDICATOR LIGHTS](#)
    - [1.7.2 RJ45](#)
- [2 Documents / Resources](#)
- [3 Related Posts](#)

**PowerSync® PS4 Data Injector LS6550**      **Installation Instructions**

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## GENERATION 2



**DANGER**

#### ISOLATE DEVICE FROM POWER

Failure to isolate power supply before installation or maintenance may result in fire, serious injury, electric shock, death and may damage the device.



**Product Warranty is void if product is not installed as per installation instructions and in compliance with the local electrical code.**



NO POWER TOOLS



DO NOT USE SILICONE ON OUTSIDE SURFACE



KEEP ELECTRONICS FREE FROM DIRECT AND MOISTURE



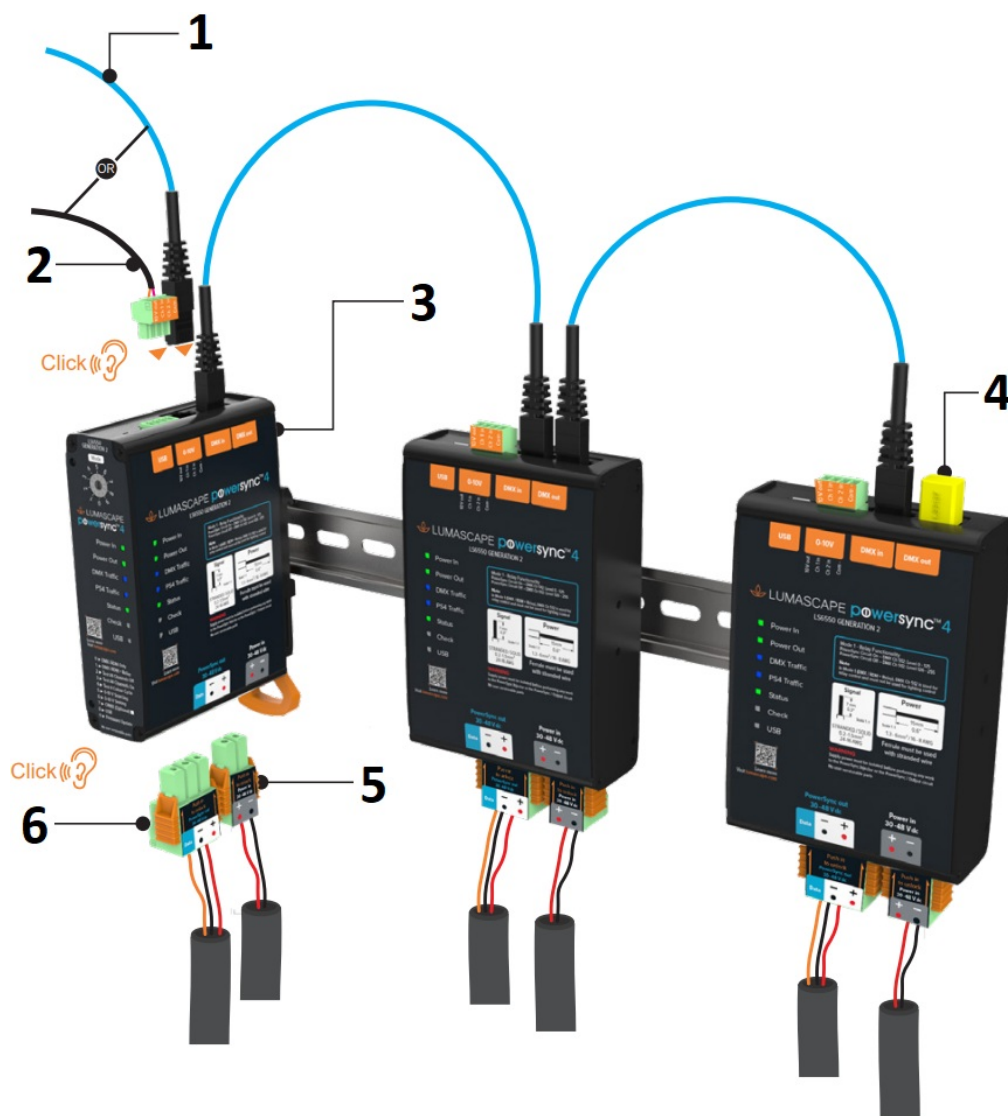
DO NOT HOSE OR PRESSURE CLEAN

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**READ ALL SAFETY INSTRUCTIONS FIRST**

- › Follow instructions carefully; failure to do so will void warranty.
- › Ensure installation complies with local laws and applicable standards.
- › Keep PowerSync free from debris and in an easily accessible location.
- › Only use Lumascope power supplies, and leader cables.
- › Ensure mains input power is surge protected.
- › **Never make connections whilst power is connected.**
- › Do not make modifications or alter product.
- › Connections and LS6550 Data Injector is to be kept clean and dry at all times.
- › A PowerSync terminator is required on the last fitting of run.

Products and specifications are subject to change without notice.  
IN0194-220729

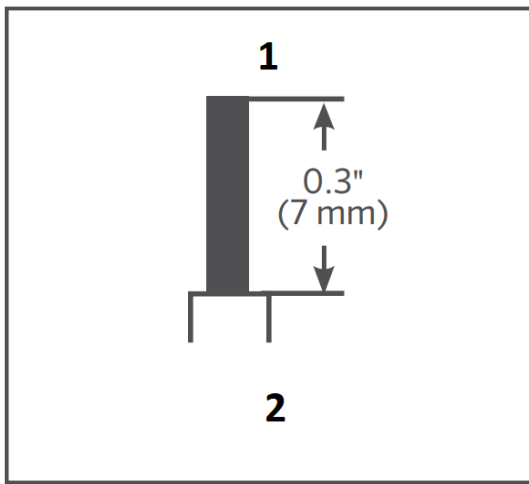


1. **DMX In**
2. **CONTROL SIGNAL**  
Either 0-10 V or PWM control signal
3. **DIN RAIL MOUNTING**  
Two (2) mounting options, side or back installation
4. **DMX TERMINATOR**  
LS6407-R
5. **30-48 Vdc Power In**  
30-48 Vdc maximum in from PSU
6. **POWERSYNC OUT**  
Connect PowerSync leader cable to first luminaire in chain

**Control via 0-10 V or PWM Input**

## STEP 1

Strip the individual wire strands of the data cable as per the specification below.



### 1. Signal

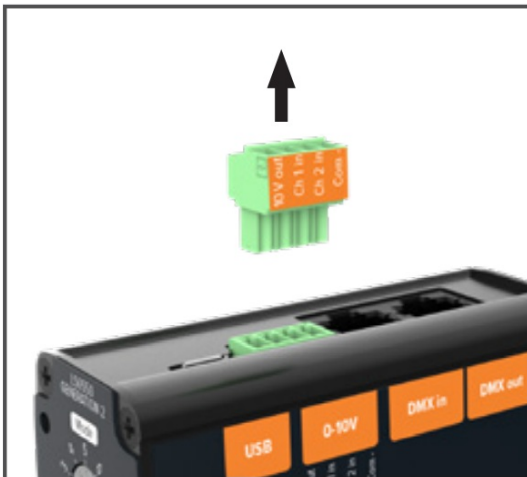
### 2. STRANDED OR SOLID

0.2-1.5 mm<sup>2</sup>

24-16 AWG

### STEP 2

Pull up to remove terminal block.

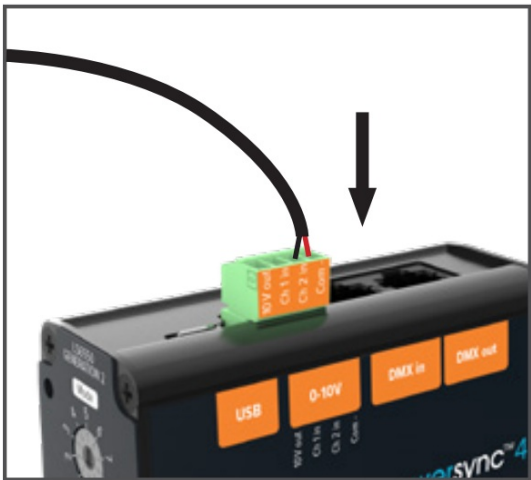


### STEP 3

Using a screwdriver, loosen the screw to open the terminal and insert stranded wire, then screw back up.



**STEP 4**  
Reconnect terminal block.

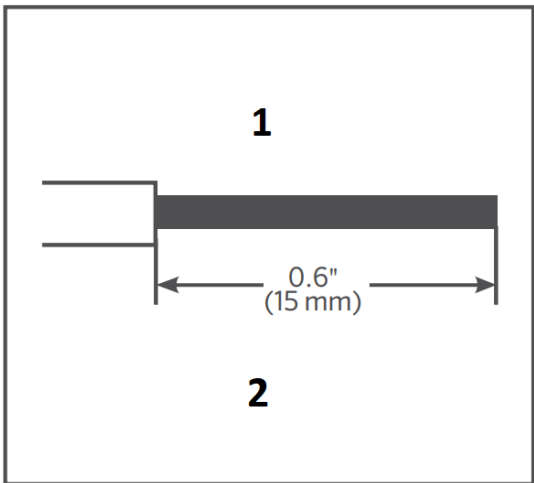


Label	Designation		
	Use with 0-10 V Sinking Dimmers <sup>1</sup>	Use with 0-10 V Sourcing Dimmers <sup>2</sup>	PWM <sup>3</sup>
10 V Out	10 V source	Not connected	Not connected
Ch 1 In	Channel 1 return	Channel 1 +	Channel 1 +
Ch 2 In	Channel 2 return	Channel 2 +	Channel 2 +
Com –	Not connected	Common –	Common –

<sup>1</sup> Mode 5, <sup>2</sup> Mode 3, <sup>3</sup> Mode 4  
Refer to Mode Switch table

**PSU Connections**

**STEP 1**  
Strip the individual wire strands of the data cable as per the specification below.



## 1. Power

2. 1.3-6 mm<sup>2</sup>/16-8 AWG

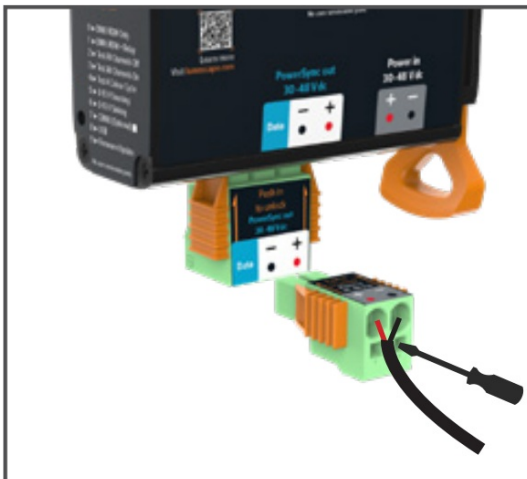
## STEP 2

Push Orange sliders in then pull down to remove terminal block.



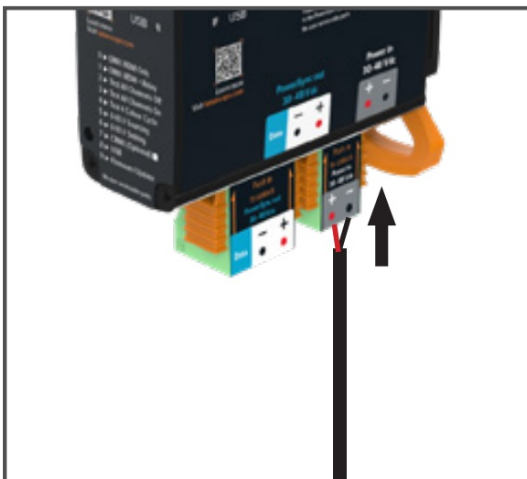
## STEP 3

Using a screwdriver, insert into hole, push to hold open terminal while inserting stranded wire.



## STEP 4

Reconnect terminal block.

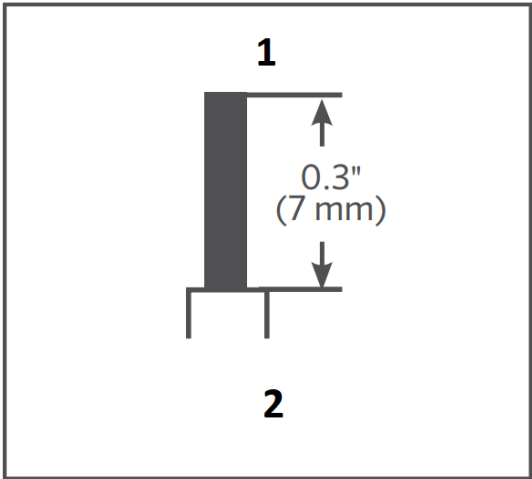


Color	PowerSync Out Cable
	2-Core
Red	Power +
Black	Power –

Connecting Luminaires via PowerSync Leader Cable

STEP 1

Strip the individual wire strands of the data cable as per the specification below.

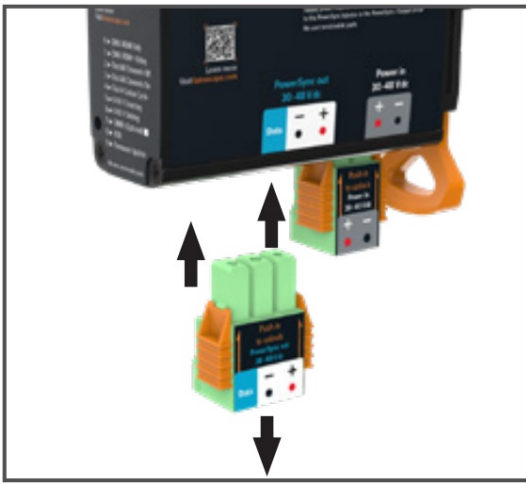


- 1. **Signal**
- 2. STRANDED OR SOLID
  - 0.2-1.5 mm<sup>2</sup>
  - 24-16 AWG

STEP 2

Push Orange sliders in then pull down to remove terminal block.





### STEP 3

Using a screwdriver, insert into hole, push to hold open terminal while inserting stranded wire.



### STEP 4

Reconnect terminal block.



Color	PowerSync In Cable
	3-Core
Red	Power +
Black	Power –
Orange	Data +

10 Position Mode Switch



	Label	Designations
TYPICAL OPERATION MODE _____	0	DMX/RDM Only
	1	DMX/RDM + Relay
TEST MODES _____	2	Test All Channels Off
	3	Test All Channels On
	4	Test 4 Color Cycle
	5	0-10 V Sourcing
	6	0-10 V Sinking
	7	CRMV (Optional)
	8	USB
	9	Firmware Update

**NOTE:**

- This function list is ONLY for Generation 2 PowerSync Injectors.
- Generation 2 is marked on the faceplate of the label on the PowerSync Injector.

The LS6550 provides three (3) test modes for PowerSync luminaires. These require only connected luminaires and power, and no connected input signal. If an input signal is connected, the LS6550 will not respond to this signal in any of the modes below.

NOTE: These test signals apply to the relevant unit’s PowerSync output only it will not be passed through on the DMX/RDM connectors if multiple LS6550 units are connected.

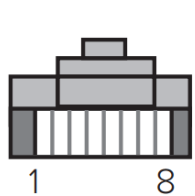
**Indicator Lights**



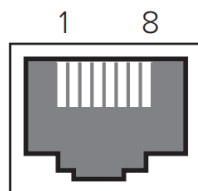
**INDICATOR LIGHTS**

LED Indicator	Event	Appearance
Power In	Main input power	Illuminates
Power Out	Output power relay closed	Illuminates
DMX Traffic	DMX Traffic detected Dimming signal detected	Flashing with signal 1.2 Hz blinking, proportional to input level
PS4 Traffic	PowerSync output enabled	Illuminates
Status	Startup Normal operation	3 flashes 1 flash, every 5 seconds
	Circuit fault detected Over voltage Short circuit	2 flashes, every 5 seconds 3 flashes, every 5 seconds
	PowerSync fault detected Power fault/over temperature	4 flashes, every 5 seconds
Check	Relay open Manual override Startup/Fault detected	Power out, light off Flashing Illuminates
USB	USB connected	Illuminates/flashes with data

#### RJ45



Plug



Socket




Pin 1

#### DMX PIN DESIGNATIONS

Signal	Connector Type RJ45 Std
Data +	1
Data -	2
Ground	7

ARCHITECTURAL & FACADE LIGHTING

Documents / Resources

	<p><a href="#">LUMASCAPE PowerSync PS4 Data Injector LS6550</a> [pdf] Instruction Manual</p> <p>PowerSync PS4, Data Injector, LS6550, PowerSync PS4 Data Injector, Data Injector LS6550, PowerSync PS4 Data Injector LS6550</p>
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