



# LUTRON QSN-2ECO-120-D Power Module with EcoSystem Installation Guide

[Home](#) » [Lutron](#) » LUTRON QSN-2ECO-120-D Power Module with EcoSystem Installation Guide

## Contents [ [hide](#) ]

- [1 LUTRON QSN-2ECO-120-D Power Module with EcoSystem](#)
- [2 Mains voltage wiring](#)
- [3 Zone Wiring](#)
- [4 QS Link \(NEC® Class 2\)](#)
- [5 Using LEDs to troubleshoot](#)
- [6 Verify lights](#)
- [7 Documents / Resources](#)
  - [7.1 References](#)
- [8 Related Posts](#)

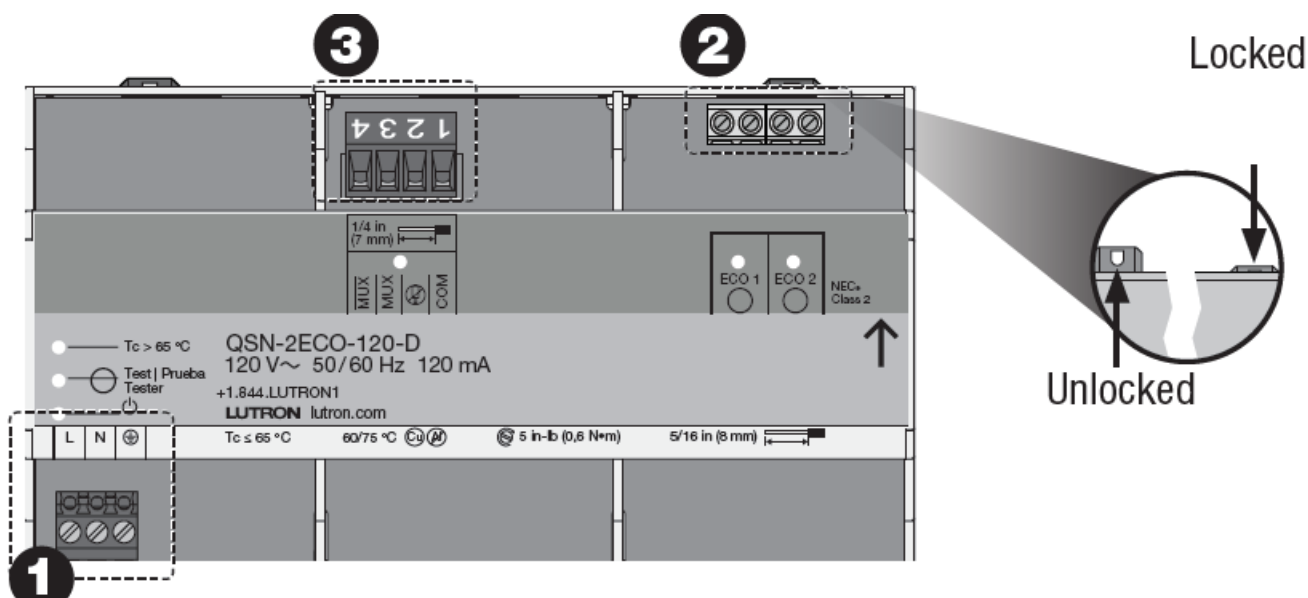
**LUTRON**

**LUTRON QSN-2ECO-120-D Power Module with EcoSystem**



Buttons and LEDs in the module are used for programming and troubleshooting. If wiring is exposed when accessing buttons and LEDs, the module must be accessed by a certified electrician, following local codes

## Mounting



- a. Mount in a Lutron DIN panel (see 3691183) or in an IP20 (minimum) or NEMA Type 1 (minimum) enclosure with an integrated DIN rail (please refer to Lutron P/N 048466 at [www.lutron.com](http://www.lutron.com)). Mount in IP20 (minimum) panel with integrated DIN rail or NEMA Type 1 panel.
- b. Module is 9 DIN modules (6.375 in [161.7 mm]) wide.
- c. Mount to DIN rail by pressing module onto rail with clips pressed in. To remove from rail, pull clips out using a screwdriver

## Mains voltage wiring

The module operates at 120 V~. Use the following instructions to wire line voltage to the module.

- a. Turn power off. DO NOT WIRE LIVE.
- b. Use 18 AWG to 12 AWG (1.0 mm<sup>2</sup> to 4.0 mm<sup>2</sup>) conductors (depending on breaker rating) to feed the mains wiring. The module draws less than 120 mA (120 V~).
- c. Strip 5/16 in (8 mm) of insulation off the mains cables.
- d. Wire the mains to the terminals labelled
- e. The recommended installation torque is 5 in-lb (0.6 N•m).
- f. The module is earthed through the
- g. Close front cover of panel.
- h. Turn on the circuit breaker to power up the module. The POWER indicator on the module will display a green light continuously when properly powered up. If the indicator does not light, turn off power, then check the mains voltage wiring and repeat this step.

**Note:** If additional wiring space is required, the module can be removed from the DIN rail while wiring.

## Zone Wiring

### EcoSystem Link wiring

EcoSystem link wiring may be considered to be mains voltage. (It is not considered SELV.) Consult applicable national and local codes for compliance. Lutron recommends using two different colours for separate ECO 1 and ECO 2 links. This will prevent wiring mistakes where several bus wires are co-located. Use the following instructions for wiring the EcoSystem link.

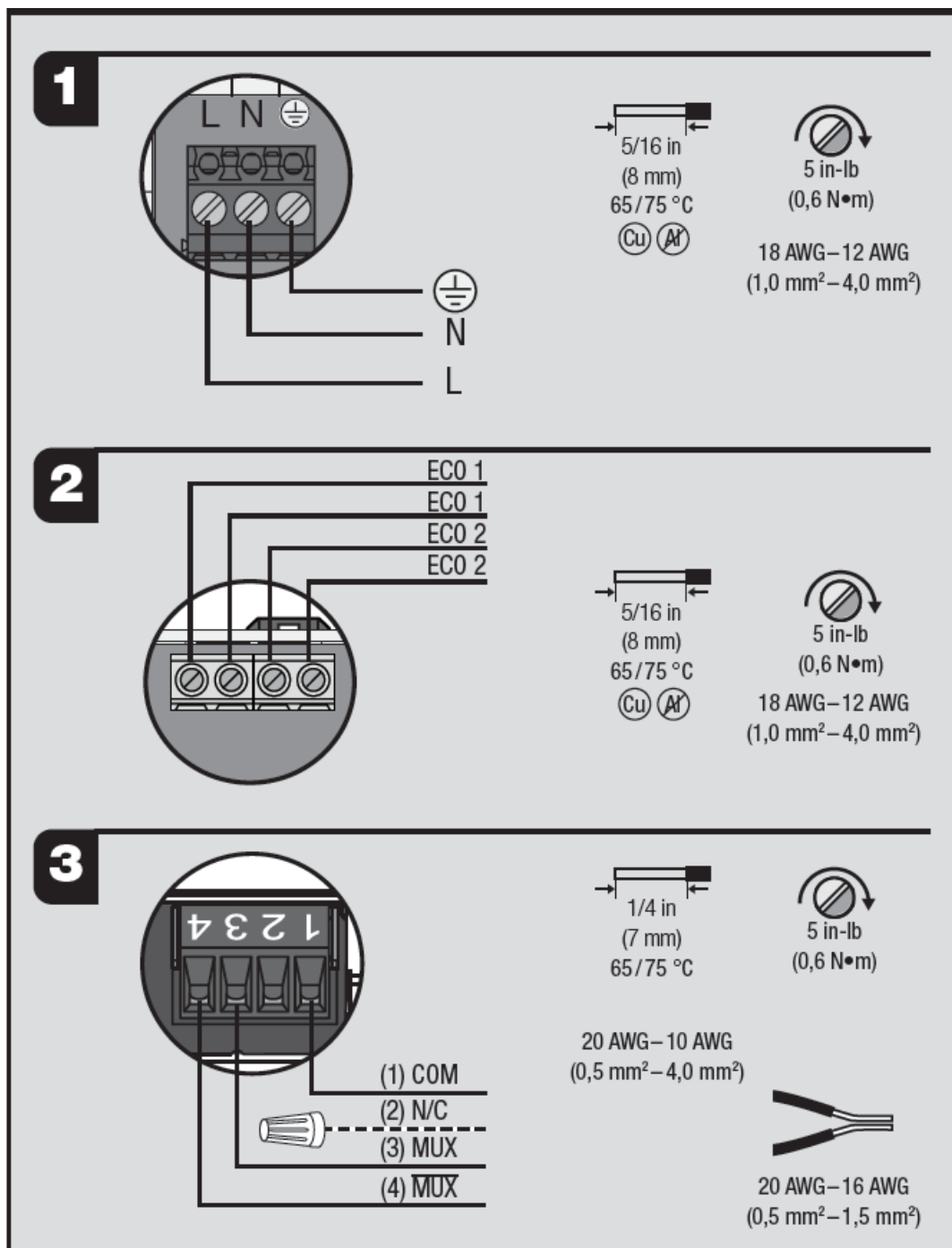
- a. Turn power off. DO NOT WIRE LIVE.
- b. Wire the ECO link from the EcoSystem terminals (ECO 1 and ECO 2) to all ballasts.
- c. Turn on the circuit breaker to power up the module. The POWER indicator on the module will display a green light continuously when properly powered up. If the indicator does not light, turn off power, then check the mains voltage wiring and repeat this step.

### QS Link (NEC® Class 2)

- a. Turn off power while servicing module. DO NOT WIRE LIVE.
- b. Wire QS Link to the module as shown, note terminals 3 and 4 are a twisted, screened pair. Recommended Lutron

cable: GRX-CBL-346S for wiring length less than 500 ft (153 m); GRX-CBL-46L for wiring length up to 2000 ft (610 m).

- Link may be daisy chained or t-tapped, length not to exceed 2000 ft (610 m).
- Do not connect to terminal 2.



<b>Using LEDs to troubleshoot</b>			
<b>LED</b>	<b>Normal Operation</b>	<b>Problem Indicator</b>	<b>Probable Cause</b>
<b>Power</b>	Green: Continuous On	Off	No power, verify breaker is on; contact Lutron.
<b>ECO 1, ECO 2</b> (EcoSystem Link Status)	Green: 1 flash per second	Red: Continuous on	ECO link externally shorted
<b>QS</b>	Green: 1 flash per second	Green: 5 flashes per second	Incorrect data
<b>Tc &gt; 65 C°</b> (Temperature Status)	Off	Red: 5 flashes per second	Over-temperature event occurred
		Red: continuous On	Over-temperature

## Verify lights

### Verifying EcoSystem lights connected to ECO link 1 and link 2

- Enter Test mode: Press and hold Test Button on the module until the Test LED starts flashing.

- **ECO 1 button:**

Each button press cycles the lights between:

- Link 1 going to low-end
- Link 1 going to high-end
- Link 1 flash
- Link 1 going to off

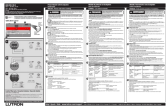
- **ECO 2 button:**

Each button press cycles the lights between:

- Link 2 going to low-end
- Link 2 going to high-end
- Link 2 flash
- Link 2 going to off





- Exit Test mode: press and hold Test button until Test LED stops flashing.

## Documents / Resources



[LUTRON QSN-2ECO-120-D Power Module with EcoSystem](#) [pdf] Installation Guide  
QSN-2ECO-120-D Power Module with EcoSystem, QSN-2ECO-120-D, Power Module with Eco System, Power Module, EcoSystem

## References

-  [Lutron: Beautiful light. Intelligent Shades. Powerful Controls](#)
-  [Lutron: Beautiful light. Intelligent Shades. Powerful Controls](#)
-  [Lutron Support Center | Lutron](#)
-  [Product Selection Page](#)