



LUTRON Energi Savr Node with EcoSystem Installation Guide

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Lutron Energi Savr Node with EcoSystem Install Guide

QSN2-2ECO-S

120-277 V~ 50 / 60 Hz 500 mA

18 V 250 mA Max per link | max por enlace | max. par liaison



032585 Rev. A
06/2021

Please read before installing.



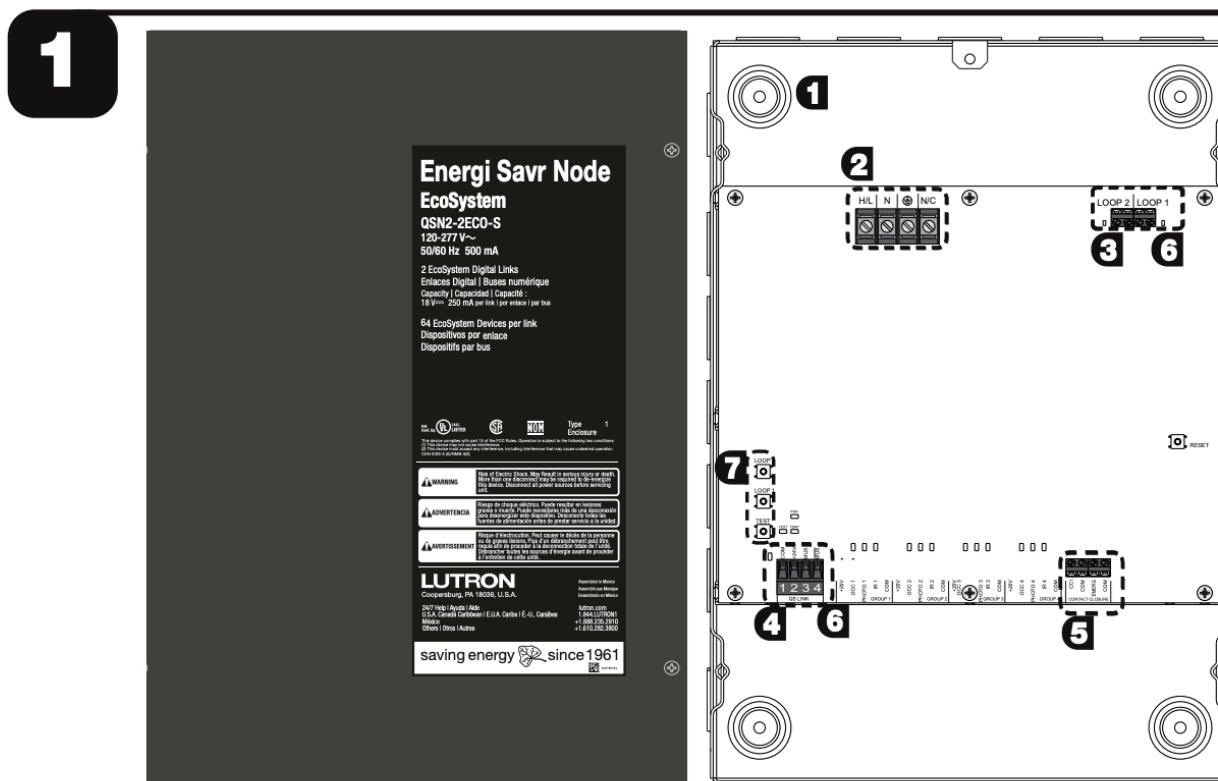
WARNING

Shock Hazard. May result in serious injury or death. Turn off power at circuit breaker before installing the unit. More than one disconnect may be required to de-energize equipment.

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

Note: For additional information on unit operation and ratings, please refer to Lutron P/N 3691211 at www.lutron.com

1 Mounting



Note: Mount Energi Savr Node (ESN) unit in a position where it can be easily located and accessed if service or troubleshooting is necessary

- Remove outer panel cover.
- Remove internal plastic line voltage shield.
- Mount vertically to ensure adequate cooling. Use 4 screws in corners of the panel to securely mount the unit.
- Choose panel mounting location so line voltage wiring is at least 6 ft (1.8 m) from audio and video equipment or radio frequency devices and wiring.
- Install in accordance with all national and local electrical codes.

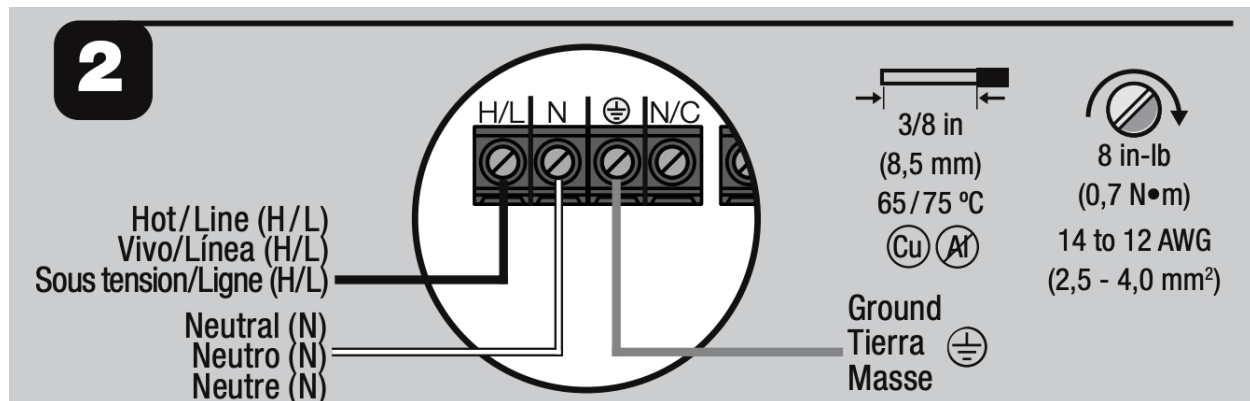
f. Can be installed in accordance with NEC® Article 300.22(c) “Other places used for environmental air”.

g. Meets the Canadian National Building Code plenum requirements for a concealed space used as a plenum within a floor or roof assembly.

2 Control Power Wiring



WARNING! Danger of Shock. May result in serious injury or death. DO NOT WIRE WHEN LIVE! Switch off power to all power feeds via circuit breaker or isolator switch before wiring or servicing the Energi Savr Node unit with EcoSystem.



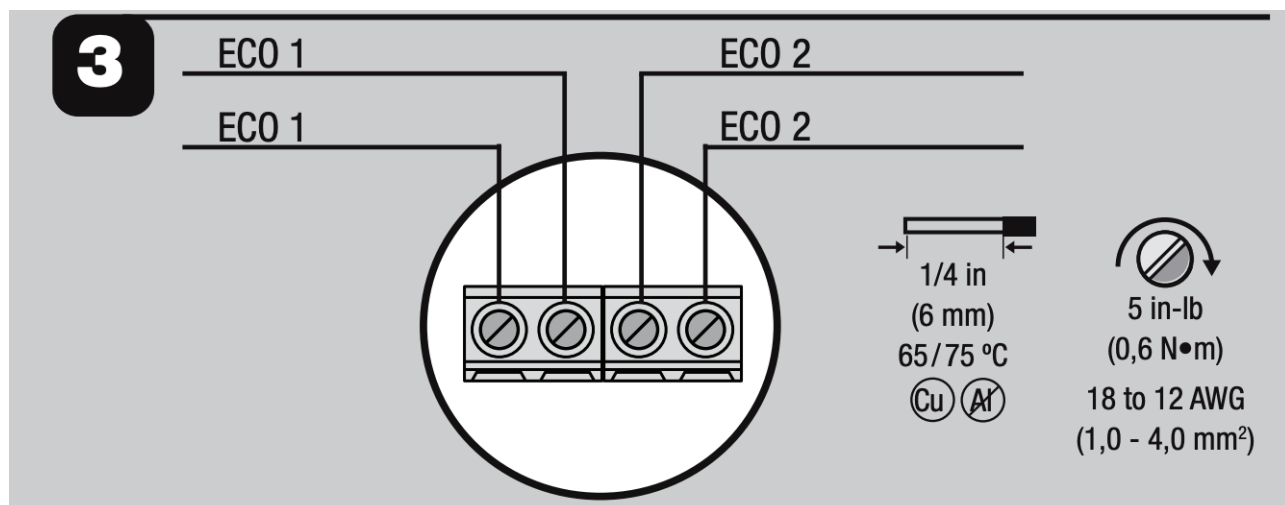
a. Turn off power DO NOT WIRE LIVE, remove metal outer panel cover and internal plastic line-voltage shield.

b. Wire mains to the unit as shown. Terminals will accept 14 AWG to 12 AWG (2.5 mm² to 4.0 mm²).

c. Reinstall plastic line-voltage shield.

d. Turn on power and verify that power LED on ESN unit illuminates.

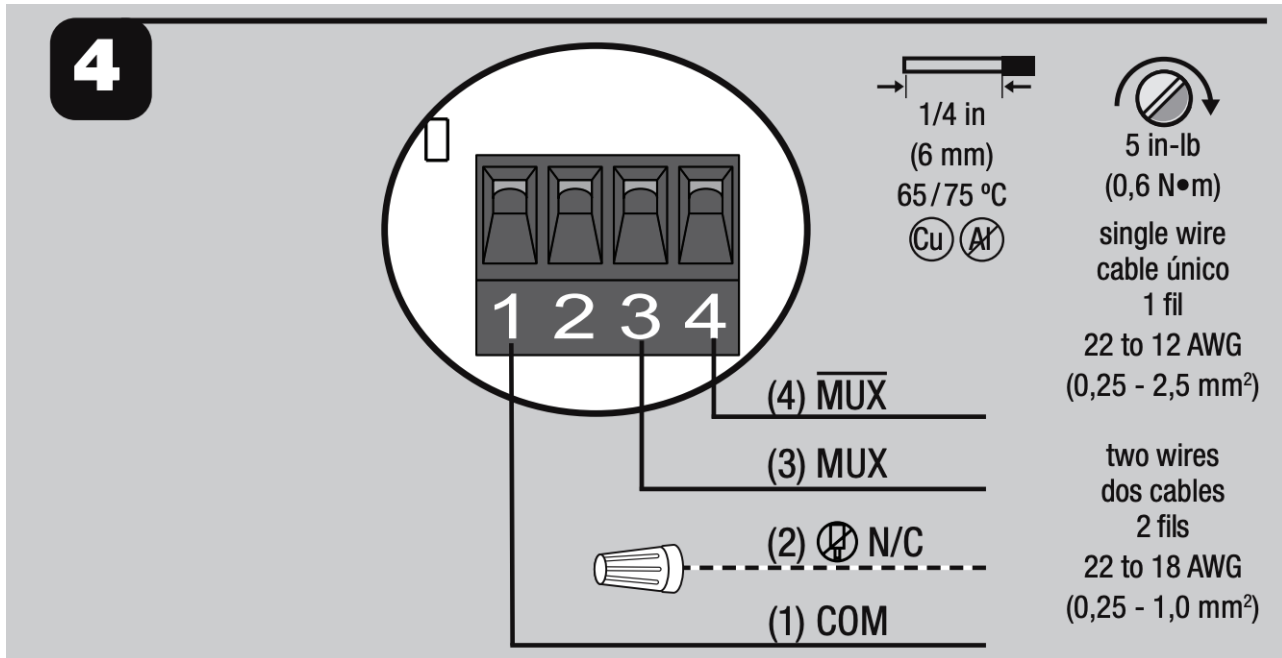
3 EcoSystem Link Wiring



Note: 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 colors for separate ECO 1 and ECO 2 links. This will prevent wiring mistakes where several bus wires are colocated. Use the following instructions for wiring the EcoSystem link.

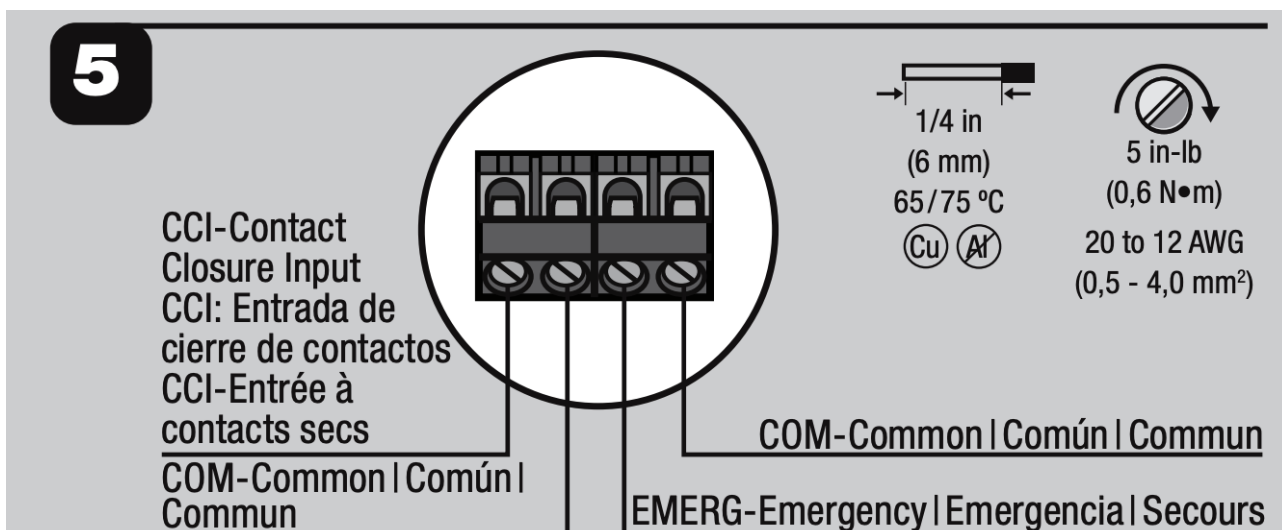
- a. Turn off power DO NOT WIRE LIVE, remove metal outer panel cover and internal plastic line-voltage shield.
- b. Wire the ECO Link from the EcoSystem terminals (ECO 1 and ECO 2) to all ballasts.
- c. Reinstall the internal plastic line-voltage shield and apply power. The Link 1 and Link 2 LEDs should flash green.

4 QS Link Wiring (IEC PELV/NECR Class 2)



- a. Turn off power while servicing the unit, DO NOT WIRE LIVE.
 - b. Wire QS link to the module as shown, note terminals 3 and 4 are a twisted screened pair.
- Links may be daisy chained or t-tapped, length not to exceed 2000 ft (610 m).
 - Do not connect terminal 2.

5 Contact Closure Input

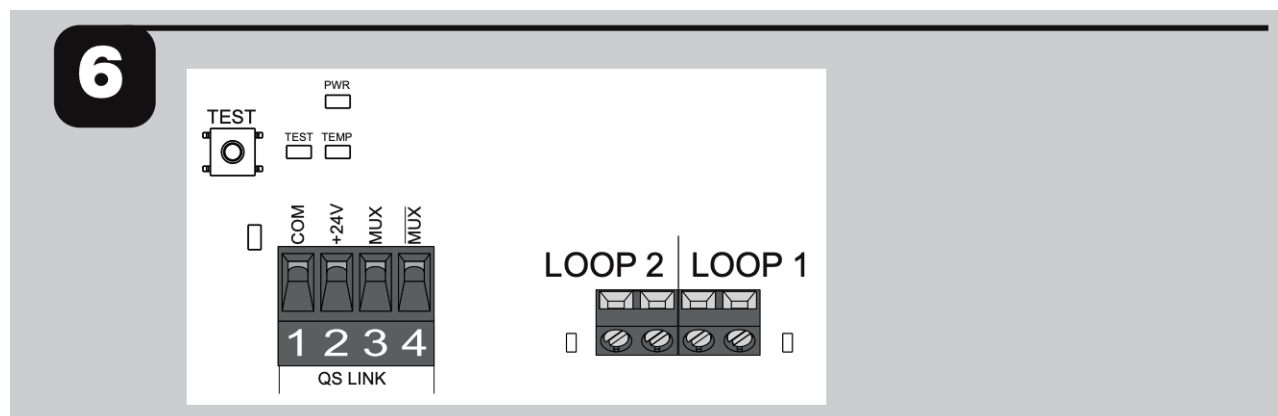


Note: Contact Closure (Emergency and CCI) wiring is IEC PELV /NECR Class 2. Follow all applicable national and local codes for proper circuit separation and protection.

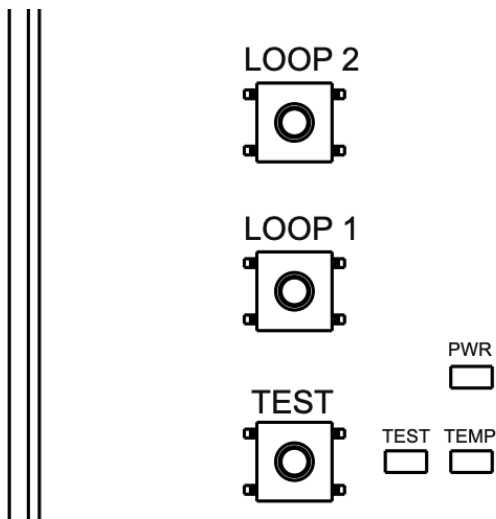
- a. Turn off power while servicing the unit, DO NOT WIRE LIVE.
- b. Wire “Emergency” and programmable “CCI” to the unit as shown.
- c. The ESN will default to Emergency Mode if the Emergency input is left open. If no Emergency contact is required, please leave the jumper wire in the Emergency input terminals.

6 LED Diagnostic Indicators

LED	Normal Operation	Problem Indicator	Probable Cause
PWR (Power)	Green: continuous On	Green: 5 flashes per second	Contact Lutron
LOOP 1 LOOP 2 (EcoSystem status)	Green: 1 flash per second	Red: continuous On	EcoSystem loop externally shorted, miswired or loop error
		Red: 5 flashes per second	Emergency mode
QS (QS link)	Green: 1 flash per second	Green: 1 flash per 7 seconds	Link disconnected, communication lost
		Green: 5 flashes per second	Incorrect data
		Off	No connection ever made
Test	Off	Green: 5 flashes per second	Test mode activated
Temp	Off	Red: 5 flashes per second	Over-temperature
		Red: continuous On	Over-temperature, unit disabled



7 Verify Lights



- a. Enter Test mode: Press and hold Test Button on the ESN until the Test LED starts flashing.
- b. Press the ECO1 or ECO 2 button.
- c. Each button press cycles the lights on that link between:
 - Going to low-end
 - Going to high-end
 - Going to off – Flashing
- d. Exit Test mode: Press and hold Test Button until Test LED stops flashing.

8 Programming

- For programming – use the Lutron Designer software suite.

Customer Assistance

www.lutron.com/support

U.S.A./Canada (1.844.LUTRON1)
Mexico (+1.888.235.2910)
Others (610.282.3800)

Limited Warranty

[Warranty](#) [PDF]

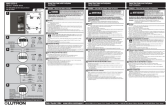
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Documents / Resources



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Energi Savr Node with EcoSystem

References

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