Emergency Lighting Interface LUT-ELI-3PH | Installation Guide

Please read this guide before installing.

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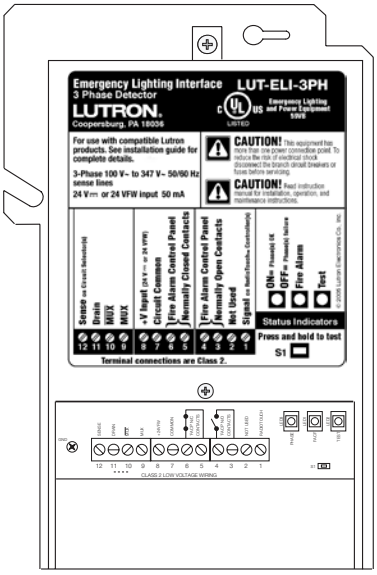


System Ratings

- Voltage: 100-347 V~ 50/60 Hz 30 mA
- Current: 20 A maximum circuit breaker

For use with Lutron®: GRAFIK Eye® GP, LP, and XP panels; LCP128™ panels; *Softswitch128* panels; EcoSystem® lighting control system; Energi Savr Node™ units; Quantum® systems; *GRAFIK Eye* QS units, and RadioTouch® lighting controllers.

Note: This device does not provide emergency power. An Emergency (Essential) power source must be provided.

Listing

The Emergency Lighting Interface – LUT-ELI-3PH is UL924 Listed as "Emergency Lighting and Power Equipment". The interface shall be used with: *Lutron GRAFIK Eye* GP, XP, and LP panels; *LCP128* panels; *Softswitch128* panels; *EcoSystem*; *Quantum*; *GRAFIK Eye* QS, *RadioTouch* controllers, and *Energi Savr Node* units.

Description

The LUT-ELI-3PH unit senses the line voltage on all three phases or a single phase and controls the emergency signal to the following compatible Lutron products/systems:

- Circuit Selector for GP, LP, XP panels
- LCP/XPS controller for *LCP128*, and *Softswitch 128* panels
- *EcoSystem* Bus Supply
- *Quantum* Bus Supply
- *Grafik Eye* QS unit
- *RadioTouch* controller
- *Energi Savr Node* unit

When one or more phases of normal power are lost, the LUT-ELI-3PH unit sends a signal to the affected device(s), activating the emergency mode. Any lights controlled by these devices will go to the emergency light level setting (factory set to 100% intensity). When normal power is restored, the lights will return to their previous intensities.

Important Safeguards

- Follow all national and local electrical codes and safety standards.
- Turn off power before installation.
- Line voltage input to the LUT-ELI-3PH unit must be from the NORMAL (non-essential) power source.
- Read and follow all safety instructions.
- For indoor use only.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- Do not use this equipment for other than intended use.
- All servicing should be performed by qualified service personnel.

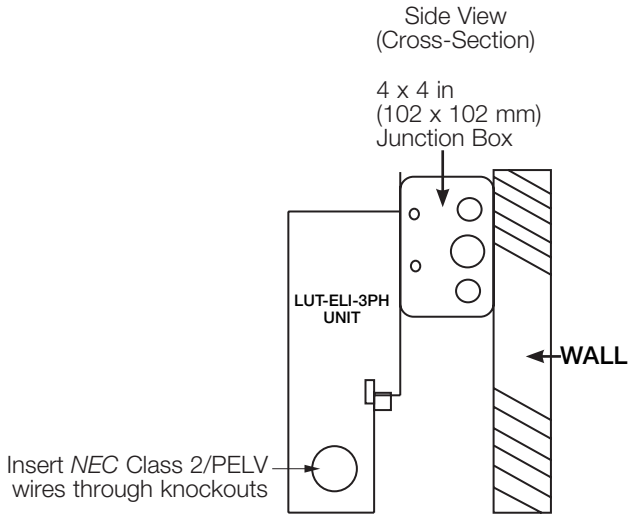
System Limits (per / LUT-ELI-3PH)

- 32 circuit selectors
- 100 *RadioTouch* Controllers
- 32 *EcoSystem* bus supplies
- 32 *Quantum* bus supplies
- 32 *Energi Savr Node* units
- 32 LCP/XPS Controllers

Mounting the Interface

1. Turn power off.
2. Wire the line voltage leads that protrude from back of LUT-ELI-3PH unit into the junction box.
3. Mount the LUT-ELI-3PH unit onto a 4 x 4-inch (102 x 102 mm) junction box (not included, but available; Lutron part number 241-496).
4. Be sure all the power wires are completely inside the junction box before tightening the mounting screws.
5. Remove front enclosure cover to expose the terminal blocks, test switch, and status LEDs.
6. Insert the NEC® Class 2/PELV wires through knockouts in the LUT-ELI-3PH enclosure as shown in the diagram.
7. Connect the *NEC* Class 2/PELV wires to the Lutron® product or system, which the LUT-ELI-3PH will be controlling. Specific wiring to these devices will be described in the following sections.
8. Reinstall front enclosure cover.

Note: Call the *Lutron* Technical Support Center at (800) 523-9466 for restrictions and wiring requirements for emergency fixtures (fixtures that never turn off or have a battery backup ballast in the fixture).



Installing a LUT-ELI-3PH Unit in a RadioTouch® System

Line Voltage Connections

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 before wiring or servicing the LUT-ELI-3PH unit and *RadioTouch* System

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

Note: Provide proper short-circuit and overcurrent protection at the distribution panel. Maximum circuit breaker rating of 20 A.

Single-Phase Wiring

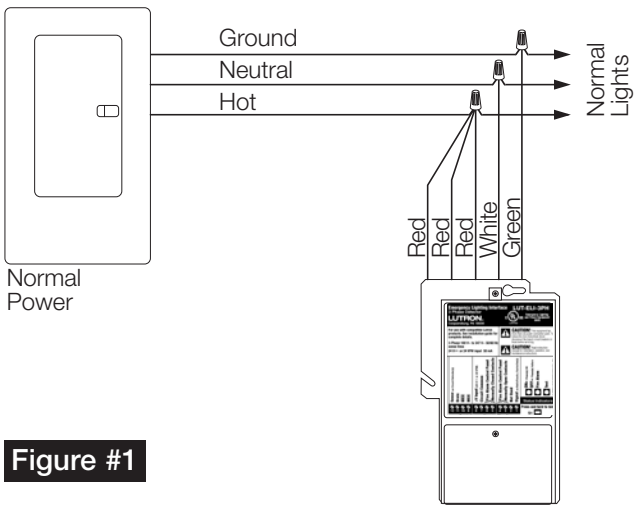


Figure #1

Three-Phase Wiring

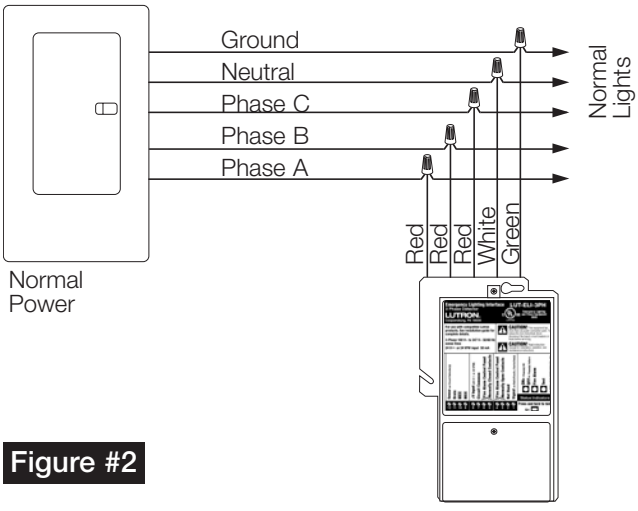


Figure #2

Installing a LUT-ELI-3PH Unit in a RadioTouch® System *(continued)*

NEC® Class 2/PELV Connections

Note: When wiring for a backup/emergency source of power, the *RadioTouch* Controller (models RTA-RX-F, RTA-RX-F-SC, RTA-RXSW), being used for the backup/emergency lights (Unit A and B) cannot be controlled by an occupancy sensor. Units A and B DIP switch 2 must be in the down position.

NEC Class 2/PELV Wiring to *RadioTouch* Controllers

One LUT-ELI-3PH can be connected in parallel with up to 100 *RadioTouch* Controllers.

1. Flip DIP switch 2 on the *RadioTouch* Controller to the down position.
2. Disconnect any occupancy sensors wired to the *RadioTouch* Controller.
3. Make the following connections.

From LUT-ELI-3PH Unit	To *RadioTouch* Controller
Terminal 8 (+V Input)	Terminal 4 (24 V⎓), Unit A only
Terminal 7 (Circuit Common)	Terminal 6 (Cir Com)
Terminal 1 (Signal)	Terminal 2 (Occ Sig)

Note: Only one *RadioTouch* unit can have its 24 V⎓ (number 4) terminal connected to terminal 8 (+V Input) on the LUT-ELI unit regardless of the number of wired *RadioTouch* units.

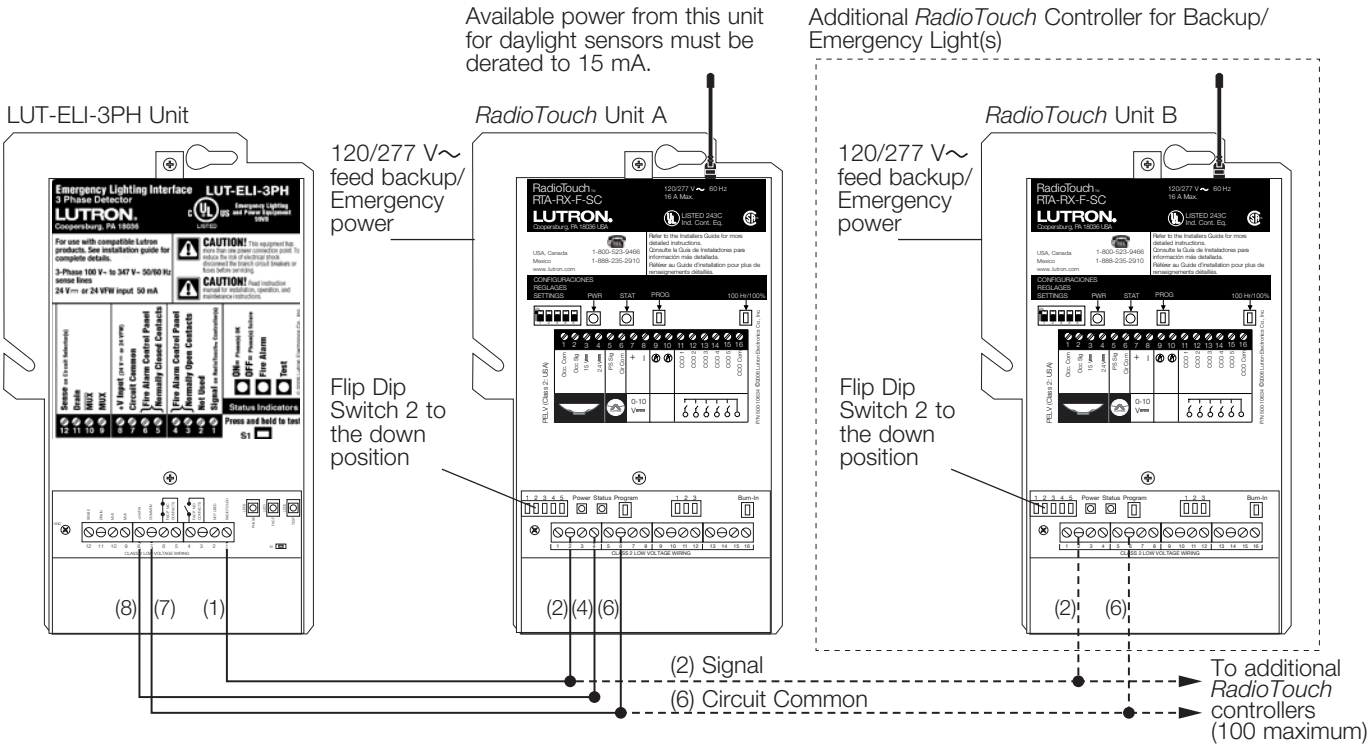
Test the System

Please perform the following tests to ensure proper installation.

1. Turn off one of the Normal (Non-Essential) phase(s) breaker(s) that the LUT-ELI-3PH unit is monitoring.

   You should see the following:
   - All lights controlled by Emergency (Essential) panel will go to FULL INTENSITY (factory set).
   - PHASE ON/OFF status Indicator (green) will turn OFF as the above test creates a phase failure.
   - Upon turning the breaker back on, all lights should return to their previous intensity.
2. Press and hold switch SW1 on the LUT-ELI-3PH unit.

   You should see the following:
   - TEST LED (orange) will turn ON.
   - All lights controlled by Emergency *RadioTouch* controller will go to FULL INTENSITY (factory set). **Note:** PHASE ON/OFF status indicator (green) will not turn OFF as test #2 does not create a phase failure.
   - Upon releasing switch SW1, all lights will return to their previous intensities.



Installing a LUT-ELI-3PH Unit in a Panel-Based System

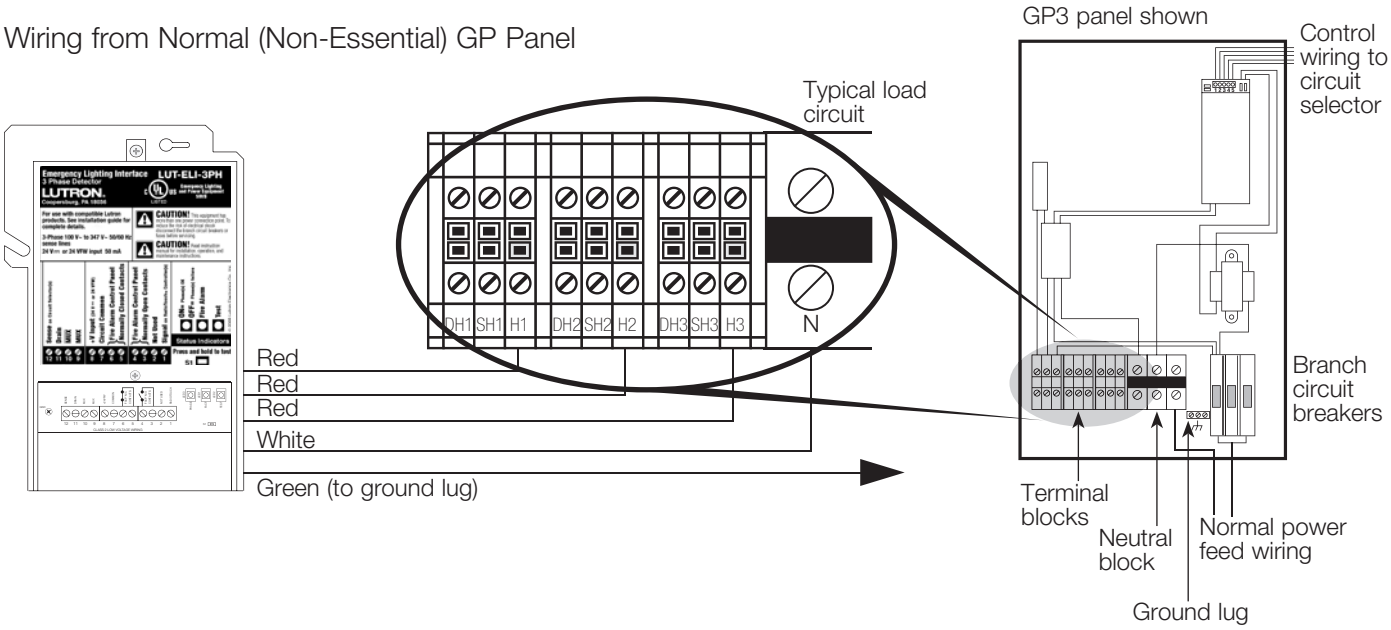
Line Voltage Connections

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 before wiring or servicing the LUT-ELI-3PH unit and Panel-Based System.

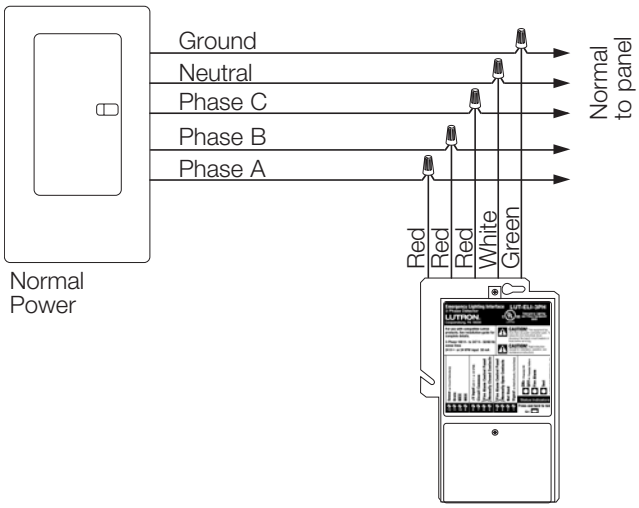
Buttons and LEDs in the unit are used for troubleshooting. If wiring is exposed when accessing buttons and LEDs, the unit must be accessed by a certified electrician, following local codes.

Note: Provide proper short-circuit and overcurrent protection at the distribution panel. Maximum circuit breaker rating of 20 A.

Wiring from Normal (Non-Essential) GP Panel



Wiring from Mains with GP, LP, XP, and XPS/LCP Panels



Installing a LUT-ELI-3PH Unit in a Panel-Based System *(continued)*

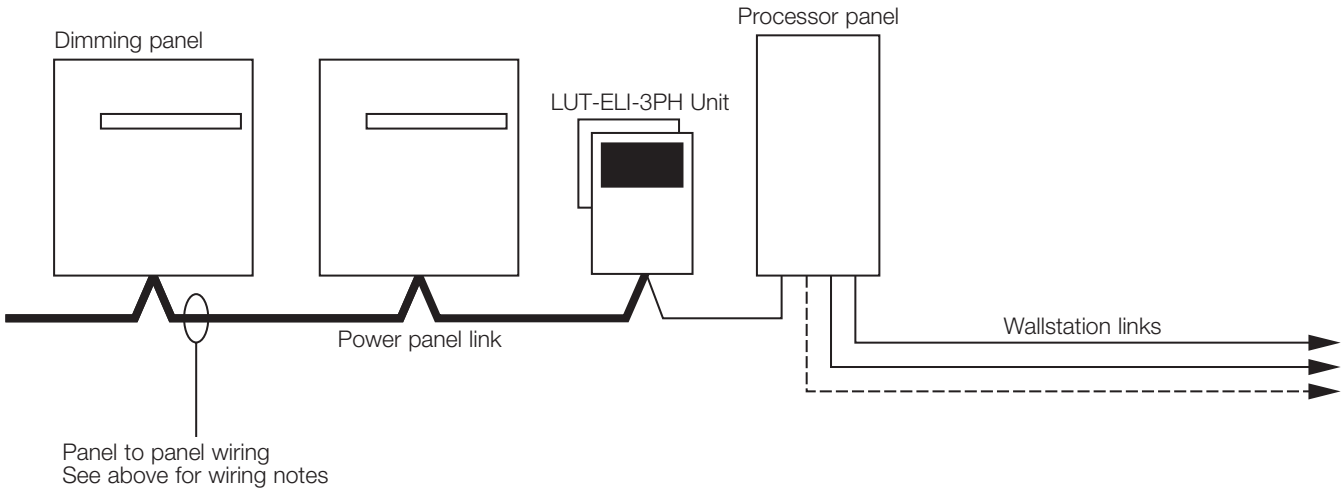
NEC® Class 2/PELV: USA Connections

Notes

- Pull *NEC* Class 2/PELV wiring for system communications.
- *NEC* Class 2/PELV wiring must be daisy-chained.
- *NEC* Class 2/PELV wiring must be run separately from line (mains) voltage.
- A LUT-ELI-3PH unit can be placed anywhere on the power panel link.

Wiring Notes

- *NEC* Class 2/PELV wiring link is 500 to 2000 feet (152 to 610 m), use Lutron® cable GRX-CBL-46L:
  - Two 12 AWG (2.5 mm^2) for control wiring (+V and com)
  - One twisted, shielded pair 22 AWG (0.5 mm^2) for data link
  - One 18 AWG (1.0 mm^2) for sense line between panels.
- Lutron has also approved smaller-gauge cable from Belden®, Liberty Wire & Cable®, AlphaWire Company, and Signature Wire Corp. Ask for *Lutron* GRAFIK Eye® Cable.



Installing a LUT-ELI-3PH Unit in a Panel-Based System *(continued)*

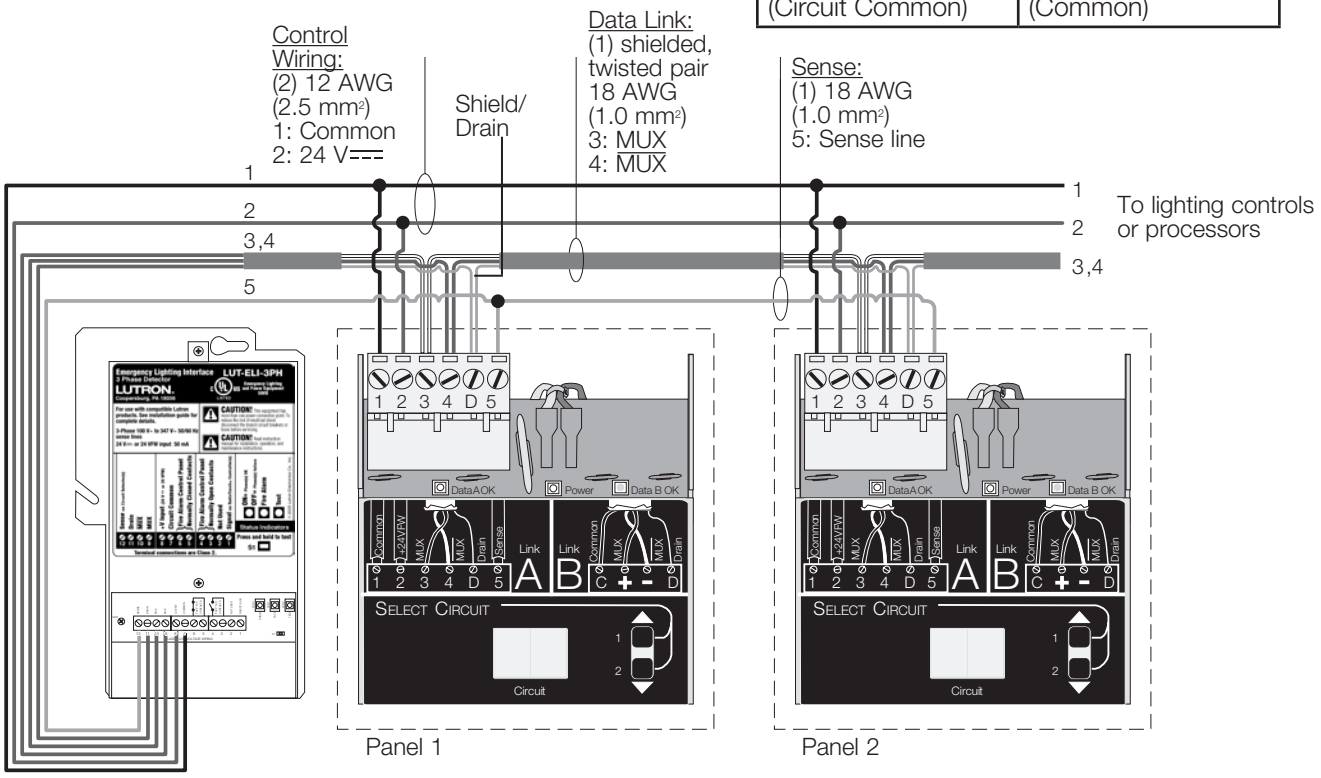
NEC® Class 2/PELV Panel to Panel Wiring Notes

- Emergency Power: The additional 18 AWG (1.0 mm²) wire is a "sense" line from terminal 12 on the LUT-ELI-3PH. This sense line allows an Emergency (Essential) lighting panel to "sense" when Normal (Non-Essential) power is lost. If more than one emergency lighting panel needs to sense Normal (Non-Essential) from a specific LUT-ELI-3PH unit, you may have to run a dedicated wire between each LUT-ELI-3PH unit and Emergency (Essential) panel(s).
- Shield/Drain: Connect shielding as shown below in wiring example A:
  - Do not connect to Ground (Earth) or circuit selector.
  - Connect the bare drain wires and cut off the outside shield.
- Each *NEC* Class 2/PELV terminal can accept only two 18 AWG (1.0 mm²) wires. Two 12 AWG (2.5 mm²) conductors won't fit. Connect as shown below in wiring example B.

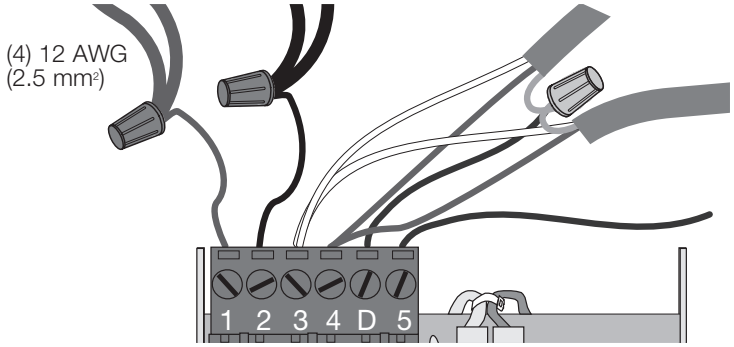
Connections

LUT-ELI-3PH	Circuit Selector
Terminal 12 (Sense)	Terminal 5 (Sense)
Terminal 11 (Drain)	Terminal D (Drain)
Terminal 10 ($\overline{\text{MUX}}$)	Terminal 4 ($\overline{\text{MUX}}$)
Terminal 9 (MUX)	Terminal 3 (MUX)
Terminal 8 (+V Input)	Terminal 2 (+24VFW)
Terminal 7 (Circuit Common)	Terminal 1 (Common)

Wiring Example A



Wiring Example B



Installing a LUT-ELI-3PH Unit in a Panel-Based System *(continued)*

Setting the Circuit Selector Normal/Emergency Switch (SW6) Position

Panels are shipped with SW6 (located at the base of each Circuit Selector) in the middle position. Terminal 5 (sense) has no affect on the circuit selector operation.

All Emergency Panels

- Move SW6 to the right Emergency (Essential) position. In this arrangement, the LUT-ELI-3PH unit will be the only unit controlling the sense line. If one or more phases go down, the LUT-ELI-3PH unit sends a signal through the sense line to Emergency (Essential) panel(s). The lights controlled by these panels will go to 'ord' override levels (factory set to full intensity). When normal power is restored, lights will return to their previous intensities.
  Note: When in 'ord' override mode (factory set to full intensity), 'ord' will appear on value display to confirm that Emergency (Essential) position is in effect.

Test the System

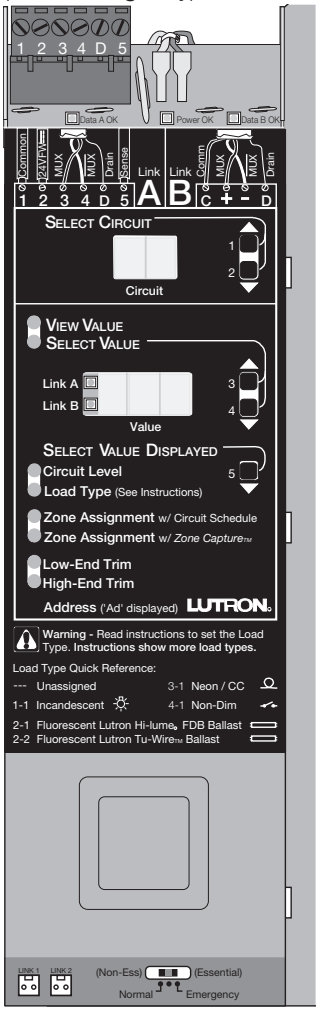
Please perform the following tests to ensure proper installation.

1. Turn off one of the Normal (Non-Essential) phase(s) breaker(s) that the LUT-ELI-3PH unit is monitoring.

   You should see the following:
   - PHASE ON/OFF status Indicator (green) will turn OFF as the above test creates a phase failure.
   - Circuit selector on Emergency (Essential) panel will go to 'ord' override mode.
   - All lights controlled by Emergency (Essential) panel will go to Full Intensity (Factory Set).
   - The circuit selector in Emergency (Essential) panel will read 'ord' on the value display when in Emergency mode.
   - All lights controlled by Normal (Non-Essential) panel will freeze at their respective intensities.
2. Press and hold switch SW1 on the LUT-ELI-3PH unit.

   You should see the following:
   - TEST LED (orange) will turn ON.
     Note: PHASE ON/OFF status indicator (green) will not turn OFF as test #2 does not create a phase failure.
   - Circuit Selector on Emergency (Essential) Panel will go to 'ord' override mode.
   - All lights controlled by Emergency (Essential) panel will go to FULL INTENSITY (factory set).
   - The circuit selector on Emergency (Essential) panel will read 'ord' on the value display when in Emergency Mode.
   - All lights controlled by Normal (Non-essential) panel will freeze at their current intensities.
   - Upon releasing switch SW1, all lights will return to their original intensities.

Circuit Selector in Normal (Non-Emergency) Panel



Switch is in center position

Circuit Selector in Emergency (Essential) Panel

Switch is moved to the right (emergency) position

Installing a LUT-ELI-3PH Unit in an EcoSystem® or Quantum® System

Line Voltage and NEC® Class 2/PELV Connections

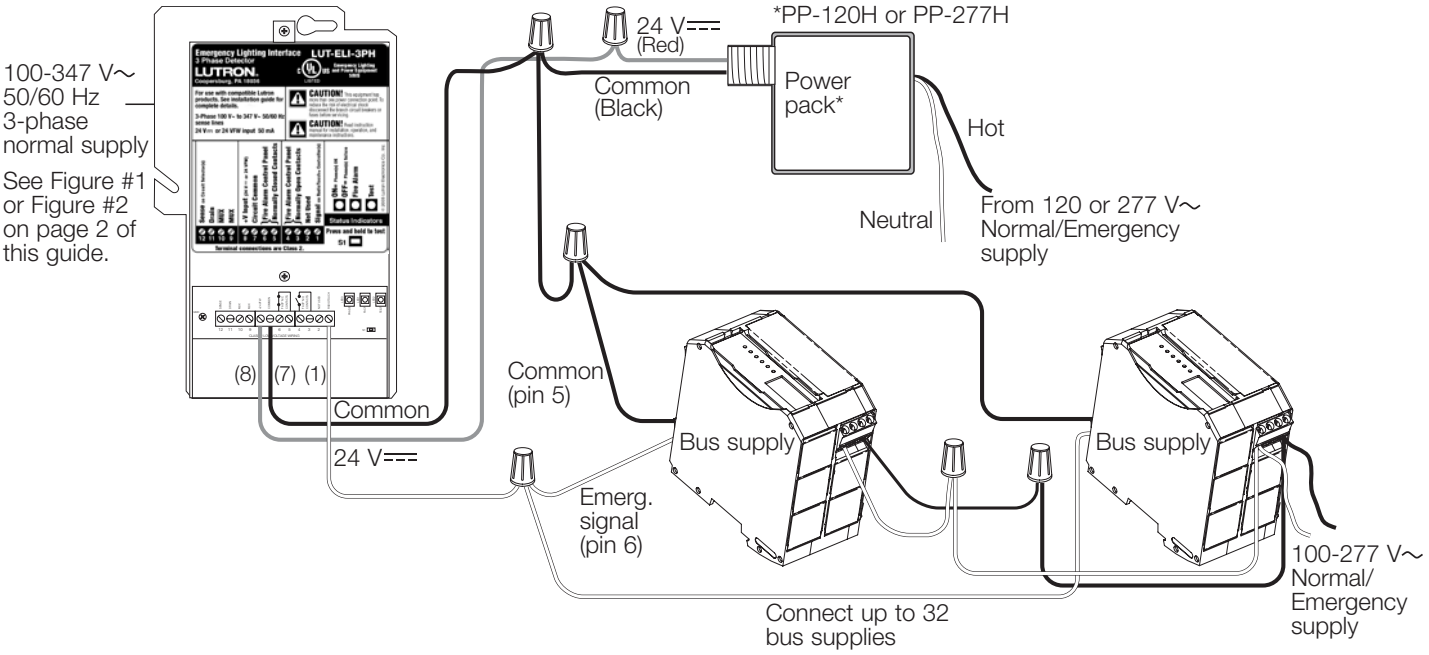
WARNING! Danger of shock. May result in serious injury or death. DO NOT WIRE WHEN LIVE! Switch off power to all power feeds via circuit breaker or isolator before wiring or servicing the LUT-ELI-3PH unit and *EcoSystem* lighting control system or *Quantum* system.

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

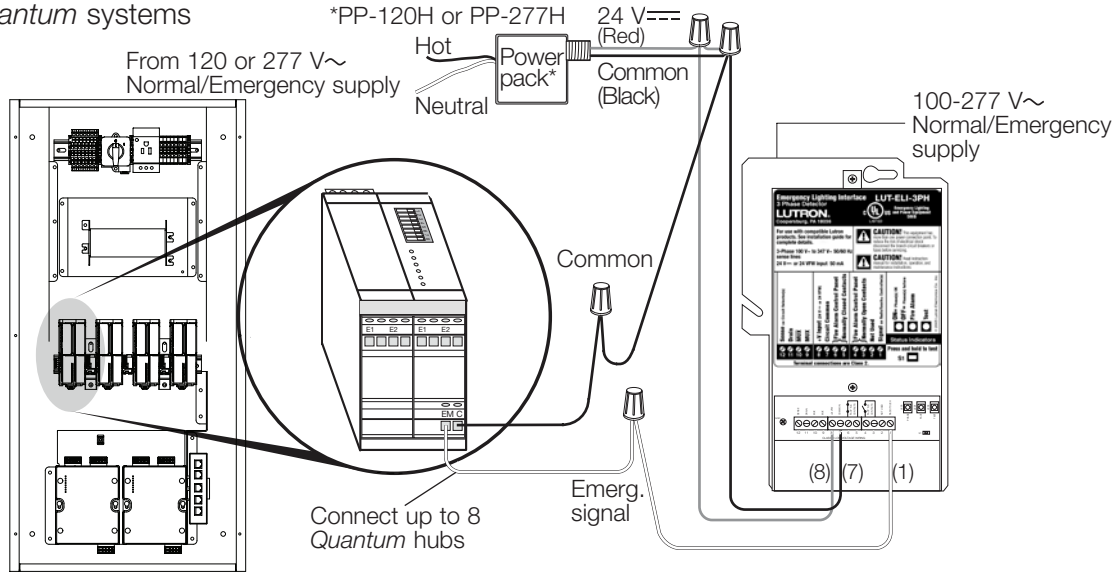
Note: Provide proper short-circuit and overcurrent protection at the distribution panel. Maximum circuit breaker installation of 20 A.

A Lutron® PP-120H or PP-277H power pack must be used to power the LUT-ELI-3PH unit when used with a bus supply. Both the power pack and the bus supplies must be fed from a normal/emergency supply.

Wiring to *EcoSystem* Bus Supply



Wiring to *Quantum* systems



Installing a LUT-ELI-3PH Unit in a GRAFIK Eye® QS Unit

NEC® Class 2/PELV Connections

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 before wiring or servicing the LUT-ELI-3PH unit and *GRAFIK Eye* QS unit.

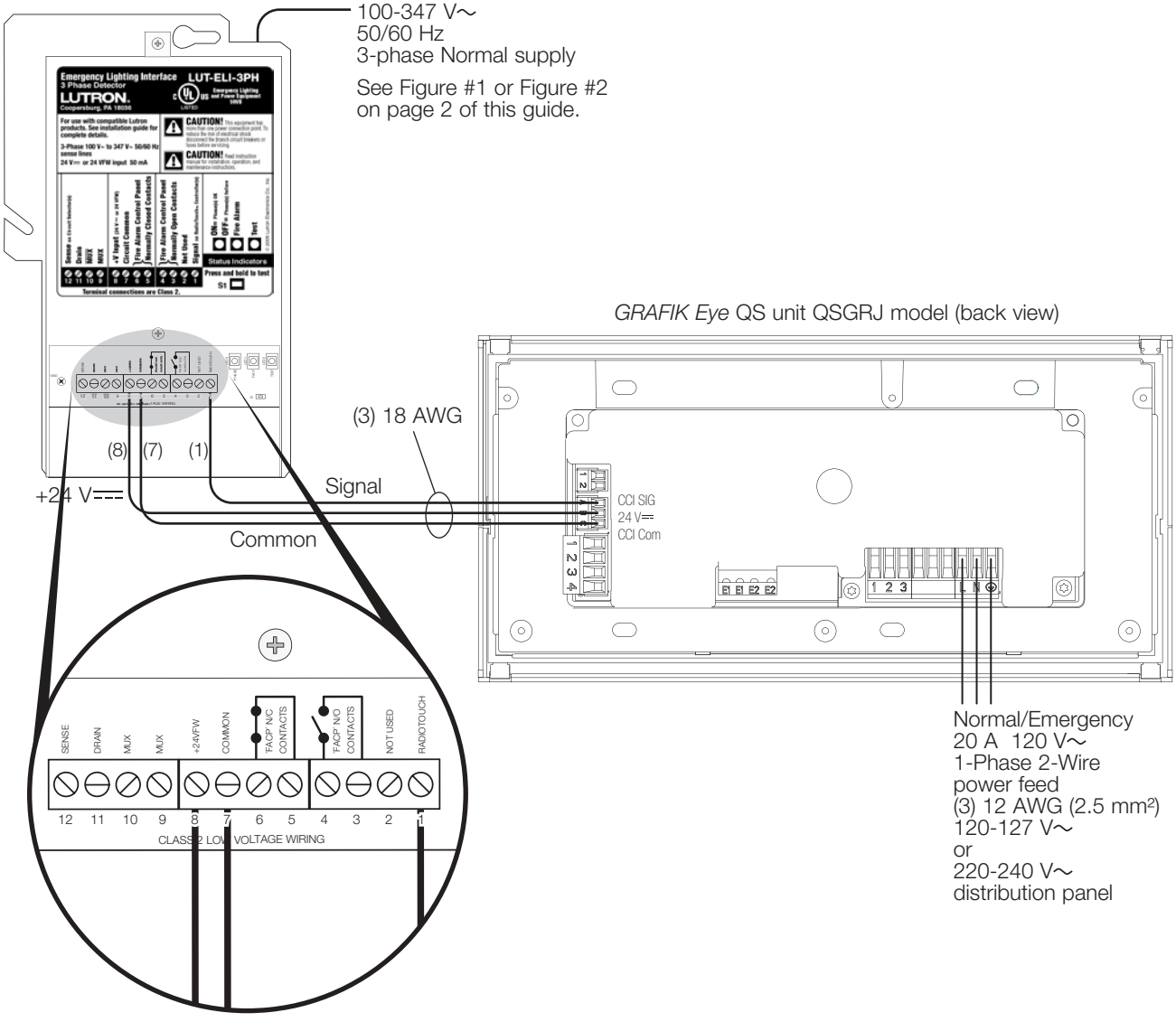
Buttons and LEDs in the unit are used for troubleshooting. If wiring is exposed when accessing buttons and LEDs, the unit must be accessed by a certified electrician, following local codes.

Notes

- Provide proper short-circuit and overcurrent protection at the distribution panel. Maximum circuit breaker installation of 20 A.
- When normal power loss is detected at the LUT-ELI-3PH unit, all zones in the *GRAFIK Eye* QS units will go to their emergency states.
- The *GRAFIK Eye* QS unit MUST be powered from a normal/emergency power feed.

Wiring to a *GRAFIK Eye* QS Control Unit

Note: For 1-phase 2-wire application, connect phase A, B, and C wires on LUT-ELI-3PH together for phase sensing.



Installing a LUT-ELI-3PH Unit with an Energi Savr Node™ Unit(s)

NEC® Class 2/PELV Connections

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 before wiring or servicing the LUT-ELI-3PH and *Energi Savr Node* unit.

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

Wiring from *Energi Savr Node* Units

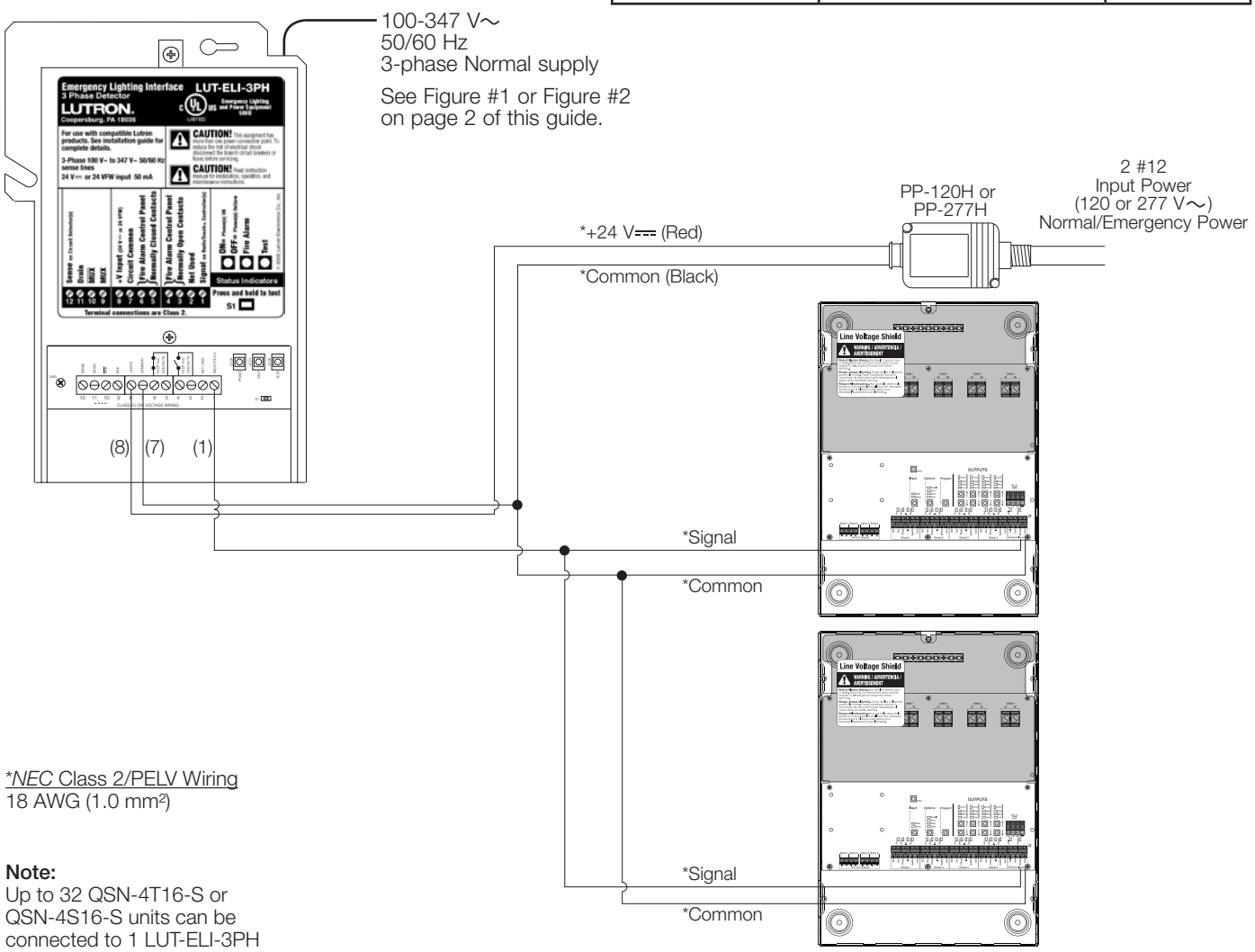
Note: For 1-phase 2-wire application, connect phase A, B, and C wires on LUT-ELI-3PH together for phase sensing.

Notes: Provide proper short-circuit and overcurrent protection at the distribution panel. Maximum circuit breaker installation of 20 A.

- A Lutron® PP-120H or PP-277H power pack must be used to power the LUT-ELI-3PH unit when used with an *Energi Savr Node* unit(s). Both the power pack and the *Energi Savr Node* unit(s) must be fed from a normal/emergency supply.
- When normal power loss is detected at the LUT-ELI-3-PH unit, all zones in the *Energi Savr Node* unit will go to their emergency states.
- The *Energi Savr Node* unit MUST be powered from a normal/emergency power feed.

Connections

LUT-ELI-3PH	*Energi Savr Node* Unit	Power Pack
Terminal 8 (+V Input)	----------	Red Wire
Terminal 7 (Circuit Common)	Com (Emergency CCI Input)	Black Wire
Terminal 1 (Signal)	Emerg (Emergency CCI Input)	----------



*NEC Class 2/PELV Wiring
18 AWG (1.0 mm²)

Note:
Up to 32 QSN-4T16-S or QSN-4S16-S units can be connected to 1 LUT-ELI-3PH

Emergency Power Mode Setup: LCP128™ / Softswitch128® with LUT-ELI-3PH

This step is only performed if an emergency pattern* is needed when normal power is lost. All control device inputs and time clock events are ignored while in emergency power mode. This step will define if the panel has emergency circuits and how to configure the emergency pattern.

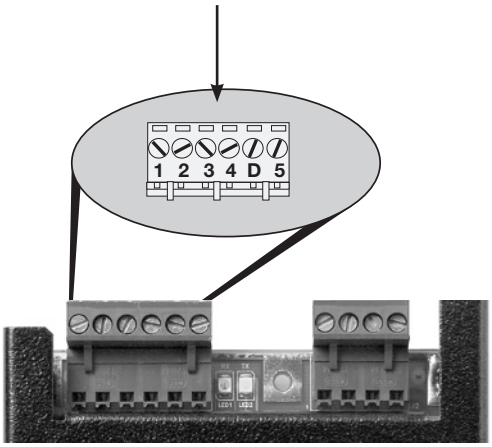
- For all the emergency (essential) lighting panels, move the **emergency switches** to the right position (see illustration below).
- The essential and non-essential panels must be connected by a sense line wired to **terminal 5** on the link connector on the *LCP128/Softswitch128* controller (see illustration below). For wiring details, see the Installation Guide.

* In this configuration, the emergency (essential) lighting panel will "sense" the normal panels' power. When normal power is lost, the emergency panel will go to the emergency pattern (factory set to all circuits On). When normal power is restored, lighting circuits and contact closure outputs return to their previous state.

Notes:

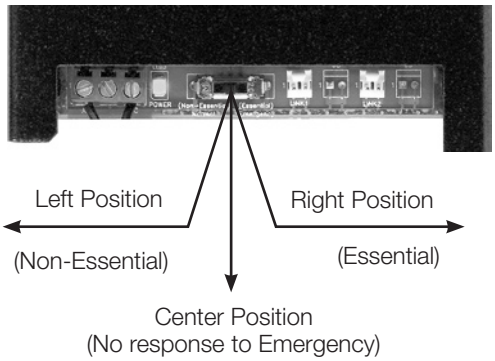
- If UL 924 certification is required, the Lutron® Emergency Lighting Interface (LUT-ELI-3PH) may be used to meet code. The LUT-ELI-3PH unit senses the normal (non-essential) line voltage on all three phases (3PH) of normal power. When one or more phases of power are lost, the LUT-ELI-3PH unit will send a signal to **terminal 5** on the *LCP128/Softswitch128* controller(s). When the **emergency switch** is set to the right position (essential) the emergency pattern will be recalled. The LUT-ELI-3PH unit can be used with one or multiple panel systems.
- Loss of normal power can be simulated by turning off all connected normal (non-essential) panel control breakers.
- When the emergency switch is in its center position (as shipped), terminal 5 the panel does not respond to emergency.

Use Terminal 5 to connect a sense line between emergency and normal panels, or between the LUT-ELI-3PH unit and one or more emergency panels. An #18 AWG wire is recommended for the sense line.



Top of the *LCP128/Softswitch128* Controller

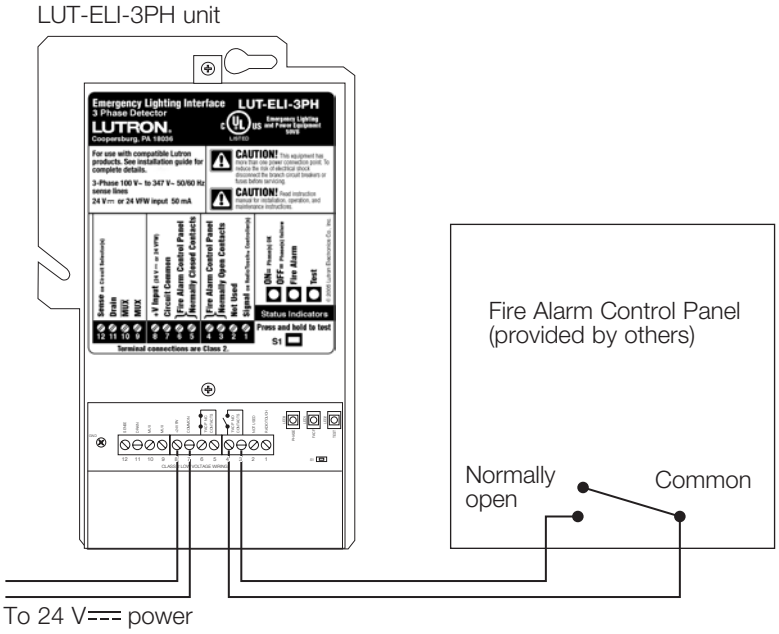
Three position **Emergency Switch** is located at the bottom of the *LCP128/Softswitch128* controller.



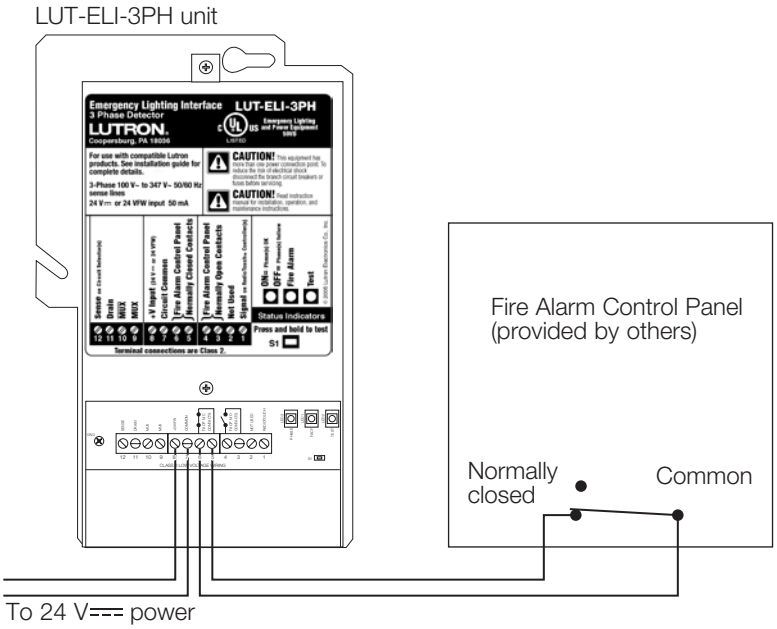
NEC® Class 2/PELV Wiring to Fire Alarm Control Panel (FACP)

- Use only with normally open (terminals 3 and 4) or normally closed (terminals 5 and 6) dry contact closure. When the proper contact state is triggered, it must be maintained for the LUT-ELI-3PH unit to go into Emergency Mode. Once the contact is released, the LUT-ELI-3PH unit will return the GRAFIK Systems™ GP, LP, XP panels, XPS, LCP, RadioTouch® controller, EcoSystem® Bus Supply, Energi Savr Node™ unit, or Quantum® Bus Supply back to Normal operation mode.
- The LUT-ELI-3PH unit will have a factory installed jumper to provide the normally closed input signal for the supervisory circuit when a normally closed FACP input is not provided.
- Consult your Fire Alarm Control Panel's instruction manual before connecting to the LUT-ELI-3PH unit.
- Do not connect any voltage source to the FACP inputs on the LUT-ELI-3PH unit. If voltage is provided by the FACP and connected to the LUT-ELI-3PH unit, it can damage the LUT-ELI-3PH unit.

Normally Open FACP Input



Supervisory Circuit (Normally Closed FACP Input)



Troubleshooting RadioTouch®

Symptom	Possible Cause	Solution
Lights are at full intensity and can not be controlled by an addressed transmitter	LUT-ELI-3PH unit is not connected to Signal on the *RadioTouch* Controller	Connect terminal 2 'Occ Sig' from the *RadioTouch* Controller to terminal 1 'Signal' on the LUT-ELI-3PH unit
	One or more of the phases feeding the LUT-ELI-3PH unit are off (phase LED on the LUT-ELI-3PH unit will be off)	Turn ON all normal power phases to LUT-ELI-3PH unit
	Neutral is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect neutral
	24V⎓ is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect terminal 4 '24V⎓' from *RadioTouch* Controller to terminal 8 '+ V Input' on the LUT-ELI-3PH unit
	There is a short across FACP and normally open contact (FACP LED will be ON)	Remove short
Lights do not turn ON and do not go to high end when the test switch is pressed	DIP switch 2 on the *RadioTouch* Controller is in the UP position	Move DIP switch 2 on the *RadioTouch* Controller to the DOWN position
	24V⎓ and signal wires are swapped	Connect terminal 4 '24 V⎓' from the *RadioTouch* Controller to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect terminal 2 'Occ Sig' from the *RadioTouch* Controller to terminal 1 'Signal' on the LUT-ELI-3PH unit
	24V⎓ and common wires are swapped	Connect terminal 4 '24V⎓' from the *RadioTouch* Controller to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect terminal 6 'Cir Com' from the *RadioTouch* Controller to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
	Common and signal wires are swapped	Connect terminal 6 'Cir Com' from the *RadioTouch* Controller to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit and connect terminal 2 'Occ sig' from the *RadioTouch* Controller to terminal 1 'Signal' on the LUT-ELI-3PH unit
Lights do not turn ON and do not go to high end when one or more of the normal power phases are turned OFF	DIP switch 2 on the *RadioTouch* Controller is in the UP position	Move DIP switch 2 on the *RadioTouch* Controller to the DOWN position
	24V⎓ and signal are swapped	Connect terminal 4 '24V⎓' from the *RadioTouch* Controller to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect terminal 2 'Occ Sig' from the *RadioTouch* Controller to terminal 1 'Signal' on the LUT-ELI-3PH unit
	That *RadioTouch* Controller is not powered by the emergency circuit power	Power the *RadioTouch* Controller from the emergency circuit and not from normal
	The emergency transfer switch is not switching over	Consult transfer switch manufacture for troubleshooting
	LUT-ELI-3PH unit is connected to the emergency circuit	Connect the LUT-ELI-3PH unit to normal power
	24V⎓ and common wires are swapped	Connect terminal 4 '24V⎓' from the *RadioTouch* Controller to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect terminal 6 'Cir Com' from the *RadioTouch* Controller to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
	Common and signal wires are swapped	Connect terminal 6 'Cir Com' from the *RadioTouch* Controller to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit and connect terminal 2 'Occ Sig' from the *RadioTouch* Controller to terminal 1 'Signal' on the LUT-ELI-3PH unit

Troubleshooting Panel Based Systems

Symptom	Possible Cause	Solution
Lights are at full intensity and can not be controlled by the wallstation (Circuit selector/ controller reads “ord”), or controller reads Emergency Mode	Sense wire is not connected from the Circuit selector/controller to the LUT-ELI-3PH unit	Connect terminal 5 ‘Sense’ from the Circuit selector/ controller to terminal 12 ‘Sense’ on the LUT-ELI-3PH unit
	One or more of the phases feeding the LUT-ELI-3PH unit are off (phase LED on the LUT-ELI-3PH unit will be OFF)	Turn ON all normal power phases to LUT-ELI-3PH unit
	Neutral is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect neutral
	24VFW is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect terminal 2 ‘24VFW’ from the Circuit selector/ controller to terminal 8 ‘+V Input’ on the LUT-ELI-3PH unit
	There is a short across FACP and normally open contact (FACP LED will be ON)	Remove short
	24VFW and sense wires are swapped	Connect terminal 2 ‘24VFW’ from the Circuit selector/ controller to terminal 8 ‘+V Input’ on the LUT-ELI-3PH unit and connect terminal 5 ‘Sense’ from the Circuit selector/ controller to terminal 12 ‘Sense’ on the LUT-ELI-3PH unit
	Common and sense wires are swapped	Connect terminal 1 ‘Common’ from the Circuit selector/ controller to terminal 7 ‘Circuit Common’ on the LUT-ELI-3PH unit and connect terminal 5 ‘Sense’ from the Circuit selector/controller to terminal 12 ‘Sense’ on the LUT-ELI-3PH unit
Lights do not turn ON and do not go to high end when the test switch is pressed	SW6 on the Circuit selector/ controller is in the middle position or far left position	Move SW6 on the Circuit selector/controller to the far right position
	24V⎓ and common wires are swapped	Connect terminal 2 ‘24VFW’ from the Circuit selector/ controller to terminal 8 ‘+V Input’ on the LUT-ELI-3PH unit and connect terminal 1 ‘Common’ from the Circuit selector/ controller to terminal 7 ‘Circuit Common’ on the LUT-ELI-3PH unit
Lights do not turn ON and do not go to high end when one or more of the normal power phases are turned OFF	SW6 on the Circuit selector/ controller is in the middle position or far left position	Move SW6 on the Circuit selector/controller to the far right position
	24 V⎓ and common wires are swapped	Connect terminal 2 ‘24VFW’ from the Circuit selector/ controller to terminal 8 ‘+V Input’ on the LUT-ELI-3PH unit and connect terminal 1 ‘Common’ from the Circuit selector/ controller to terminal 7 ‘Circuit Common’ on the LUT-ELI-3PH unit
	That Emergency Panel is not powered by the emergency circuit	Power the Emergency Panel from the emergency circuit and not from normal power
	The emergency transfer switch is not switching over	Consult transfer switch manufacture for troubleshooting
	LUT-ELI-3PH unit is connected to the emergency circuit	Connect the LUT-ELI-3PH unit to normal power

Troubleshooting Energi Savr Node™ Installations

Symptom	Possible Cause	Solution
Lights are at full intensity. Unit will not respond to local control or input signals.	Signal wire is not connected from the LUT-ELI-3PH unit to the *Energi Savr Node* unit	Connect 'Emerg' terminal from the *Energi Savr Node* unit to terminal 1 'Signal' on the LUT-ELI-3PH unit
	One or more of the phases feeding the LUT-ELI-3PH unit are off (phase LED on the LUT-ELI-3PH unit will be OFF)	Turn ON all normal power phases to LUT-ELI-3PH unit
	Neutral is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect neutral
	24VFW is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect red wire (24 V⎓) from the PP-120H or PP-277H unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit
	There is a short across FACP and normally open contact (FACP LED will be ON)	Remove short
Lights do not turn ON and do not go to high end when the test switch is pressed	24 V⎓ and common wires are swapped	Connect red wire (24 V⎓) from the PP-120H or PP-277H unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect black wire (Common) from the PP-120H or PP-277H unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
Lights do not turn ON and do not go to high end when one or more of the normal power phases are turned OFF	24 V⎓ and common wires are swapped	Connect red wire (24 V⎓) from the PP-120H or PP-277H unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect black wire (Common) from the PP-120H or PP-277H unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
	Emergency Panel is not powered by the emergency circuit	Power the Emergency Panel from the emergency circuit and not from normal power
	The emergency transfer switch is not switching over	Consult transfer switch manufacturer for troubleshooting
	LUT-ELI-3PH unit is connected to the emergency circuit	Connect the LUT-ELI-3PH unit to normal power

Troubleshooting EcoSystem® or Quantum® System Installations

Symptom	Possible Cause	Solution
Lights are at full intensity. System will not respond to local control or input signals.	Signal wire is not connected from the LUT-ELI-3PH unit to the *Ecosystem* bus supply	Connect 'CCI-EMERG' terminal from the *Ecosystem* bus supply to terminal 1 'Signal' on the LUT-ELI-3PH unit
	Signal wire is not connected from the LUT-ELI-3PH unit to the *Quantum* bus supply	Connect 'EM' terminal from the *Quantum* bus supply to terminal 1 'Signal' on the LUT-ELI-3PH unit
	One or more of the phases feeding the LUT-ELI-3PH unit are off (phase LED on the LUT-ELI-3PH unit will be OFF)	Turn on all normal power phases to LUT-ELI-3PH unit
	Neutral is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect neutral
	24VFW is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect red wire (24 V⎓) from the PP-120H or PP-277H unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit
	There is a short across FACP and normally open contact (FACP LED will be ON)	Remove short
Lights do not turn ON and do not go to high end when the test switch is pressed	24 V⎓ and common wires are swapped	Connect red wire (24 V⎓) from the PP-120H or PP-277H unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect black wire (Common) from the PP-120H or PP-277H unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
Lights do not turn ON and do not go to high end when one or more of the normal power phases are turned OFF	24 V⎓ and common wires are swapped	Connect red wire (24 V⎓) from the PP-120H or PP-277H unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect black wire (Common) from the PP-120H or PP-277H unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
	Emergency Panel is not powered by the emergency circuit	Power the Emergency Panel from the emergency circuit and not from normal power
	The emergency transfer switch is not switching over	Consult transfer switch manufacturer for troubleshooting
	LUT-ELI-3PH unit is connected to the emergency circuit	Connect the LUT-ELI-3PH unit to normal power

Troubleshooting a GRAFIK Eye® QS Installation

Symptom	Possible Cause	Solution
Lights are at full intensity. System will not respond to local control or input signals.	LUT-ELI-3PH unit is not connected to 'CCI SIG' on the *GRAFIK Eye* QS unit	Connect the 'CCI SIG' terminal from the *GRAFIK Eye* QS unit to terminal 1 'Signal' on the LUT-ELI-3PH unit
	One or more of the phases feeding the LUT-ELI-3PH unit are off (phase LED on the LUT-ELI-3PH unit will be off)	Turn on all normal power phases to LUT-ELI-3PH unit
	Neutral is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect neutral
	24 V⎓ is not connected on the LUT-ELI-3PH unit (phase LED on the LUT-ELI-3PH unit will be OFF)	Connect the '24 V⎓' terminal from the *GRAFIK Eye* QS unit to terminal 8 '+ V Input' on the LUT-ELI-3PH unit
	There is a short across FACP and normally open contact (FACP LED will be ON)	Remove short
Lights do not turn ON and do not go to high end when the test switch is pressed	24 V⎓ and signal are swapped	Connect the '24 V⎓' terminal from the *GRAFIK Eye* QS unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect the 'CCI SIG' terminal from the *GRAFIK Eye* QS unit to terminal 1 'Signal' on the LUT-ELI-3PH unit
	24 V⎓ and common wires are swapped	Connect the '24 V⎓' terminal from the *GRAFIK Eye* QS unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect the 'CCI Com' terminal from the *GRAFIK Eye* QS unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
	Common and signal are swapped	Connect the 'CCI Com' terminal from the *GRAFIK Eye* QS unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit and connect the 'CCI SIG' terminal from the *GRAFIK Eye* QS unit to terminal 1 'Signal' on the LUT-ELI-3PH unit
	GRAFIK Eye QS unit 'CCI SIG' input has not been set up as an emergency input	Refer to programming guide for the *GRAFIK Eye* QS unit on how to program the 'CCI SIG' input as an emergency input.
Lights do not turn ON and do not go to high end when one or more of the normal power phases are turned OFF	24V and signal are swapped	Connect the '24 V⎓' terminal from the *GRAFIK Eye* QS unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect the 'CCI SIG' terminal from the *GRAFIK Eye* QS unit to terminal 1 'Signal' on the LUT-ELI-3PH unit
	The G*RAFIK Eye* QS unit is not powered by the emergency circuit power	Power the *GRAFIK Eye* QS unit from the emergency circuit and not from normal
	The emergency transfer switch is not switching over	Consult transfer switch manufacture for troubleshooting
	LUT-ELI-3PH unit is connected to the emergency circuit	Connect the LUT-ELI-3PH unit to normal power
	24 V⎓ and common wires are swapped	Connect the '24 V⎓' terminal from the *GRAFIK Eye* QS unit to terminal 8 '+V Input' on the LUT-ELI-3PH unit and connect the 'CCI Com' terminal from the *GRAFIK Eye* QS unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit
	Common and signal wires are swapped	Connect the 'CCI Com' terminal from the G*RAFIK Eye* QS unit to terminal 7 'Circuit Common' on the LUT-ELI-3PH unit and connect the 'CCI SIG' terminal from the *GRAFIK Eye* QS unit to terminal 1 'Signal' on the LUT-ELI-3PH unit
	GRAFIK Eye QS unit 'CCI SIG' input has not been set up as an emergency input	Refer to programming guide for the *GRAFIK Eye* QS unit on how to program the 'CCI SIG' input as an emergency input.

NOTES:

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Lutron Electronics Co., Inc.
One Year Limited Warranty

For a period of one year from the date of purchase, and subject to the exclusions and restrictions described below, Lutron warrants each new unit to be free from manufacturing defects. Lutron will, at its option, either repair the defective unit or issue a credit equal to the purchase price of the defective unit to the Customer against the purchase price of comparable replacement part purchased from Lutron. Replacements for the unit provided by Lutron or, at its sole discretion, an approved vendor may be new, used, repaired, reconditioned, and/or made by a different manufacturer.

If the unit is commissioned by Lutron or a Lutron approved third party as part of a Lutron commissioned lighting control system, the term of this warranty will be extended, and any credits against the cost of replacement parts will be prorated, in accordance with the warranty issued with the commissioned system, except that the term of the unit's warranty term will be measured from the date of its commissioning.

EXCLUSIONS AND RESTRICTIONS

This Warranty does not cover, and Lutron and its suppliers are not responsible for:

1. Damage, malfunction or inoperability diagnosed by Lutron or a Lutron approved third party as caused by normal wear and tear, abuse, misuse, incorrect installation, neglect, accident, interference or environmental factors, such as (a) use of incorrect line voltages, fuses or circuit breakers; (b) failure to install, maintain and operate the unit pursuant to the operating instructions provided by Lutron and the applicable provisions of the National Electrical Code and of the Safety Standards of Underwriter's Laboratories; (c) use of incompatible devices or accessories; (d) improper or insufficient ventilation; (e) unauthorized repairs or adjustments; (f) vandalism; or (g) an act of God, such as fire, lightning, flooding, tornado, earthquake, hurricane or other problems beyond Lutron's control.
2. On-site labor costs to diagnose issues with, and to remove, repair, replace, adjust, reinstall and/or reprogram the unit or any of its components.
3. Equipment and parts external to the unit, including those sold or supplied by Lutron (which may be covered by a separate warranty).
4. The cost of repairing or replacing other property that is damaged when the unit does not work properly, even if the damage was caused by the unit.

EXCEPT AS EXPRESSLY PROVIDED IN THIS WARRANTY, THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF ANY TYPE, INCLUDING ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. LUTRON DOES NOT WARRANT THAT THE UNIT WILL OPERATE WITHOUT INTERRUPTION OR BE ERROR FREE.

NO LUTRON AGENT, EMPLOYEE OR REPRESENTATIVE HAS ANY AUTHORITY TO BIND LUTRON TO ANY AFFIRMATION, REPRESENTATION OR WARRANTY CONCERNING THE UNIT. UNLESS AN AFFIRMATION, REPRESENTATION OR WARRANTY MADE BY AN AGENT, EMPLOYEE OR REPRESENTATIVE IS SPECIFICALLY INCLUDED HEREIN, OR IN STANDARD PRINTED MATERIALS PROVIDED BY LUTRON, IT DOES NOT FORM A PART OF THE BASIS OF ANY BARGAIN BETWEEN LUTRON AND CUSTOMER AND WILL NOT IN ANY WAY BE ENFORCEABLE BY CUSTOMER.

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TO MAKE A WARRANTY CLAIM

To make a warranty claim, promptly notify Lutron within the warranty period described above by calling the Lutron Technical Support Center at (800) 523-9466. Lutron, in its sole discretion, will determine what action, if any, is required under this warranty. To better enable Lutron to address a warranty claim, have the unit's serial and model numbers available when making the call. If Lutron, in its sole discretion, determines that an on-site visit or other remedial action is necessary, Lutron may send a Lutron Services Co. representative or coordinate the dispatch of a representative from a Lutron approved vendor to Customer's site, and/or coordinate a warranty service call between Customer and a Lutron approved vendor.

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