

# Energi Savr Node™

manual programming guide

English

Energi Savr Node™ with Softswitch® unit  
(QSN-4S16-S, QSN-4S16-S-347, QSN-4S20-S)

Energi Savr Node™ for 0-10 V unit  
(QSN-4T16-S, QSN-4T16-S-347, QSN-4T20-S)

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**LUTRON®**

## IMPORTANT NOTES

- Manual Programming:** This document describes manual programming via the buttons on the front of the Energi Savr Node™ unit. For programming using the *Apple iPod touch* or *iPhone* mobile digital devices, please see the Energi Savr Node™ app available from the *Apple AppStore* online store.
- Use only compatible Lutron® sensors and controls.

## USING THIS GUIDE

This guide is divided into sections. Each section deals with a particular feature or set of features of the Energi Savr Node™ unit and the equipment connected to it. Depending on the connected equipment and the intended use of your Energi Savr Node™ unit, some sections may not apply. See below to determine which sections should be read.

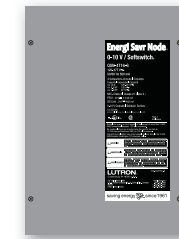
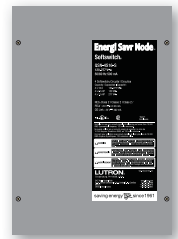
### All Energi Savr Node™ units

Read:

- » **A Load Setup**

**Energi Savr Node™ with Softswitch® unit**  
(QSN-4S16-S, QSN-4S16-S-347, QSN-4S20-S)

**Energi Savr Node™ for 0-10 V unit**  
(QSN-4T16-S, QSN-4T16-S-347, QSN-4T20-S)



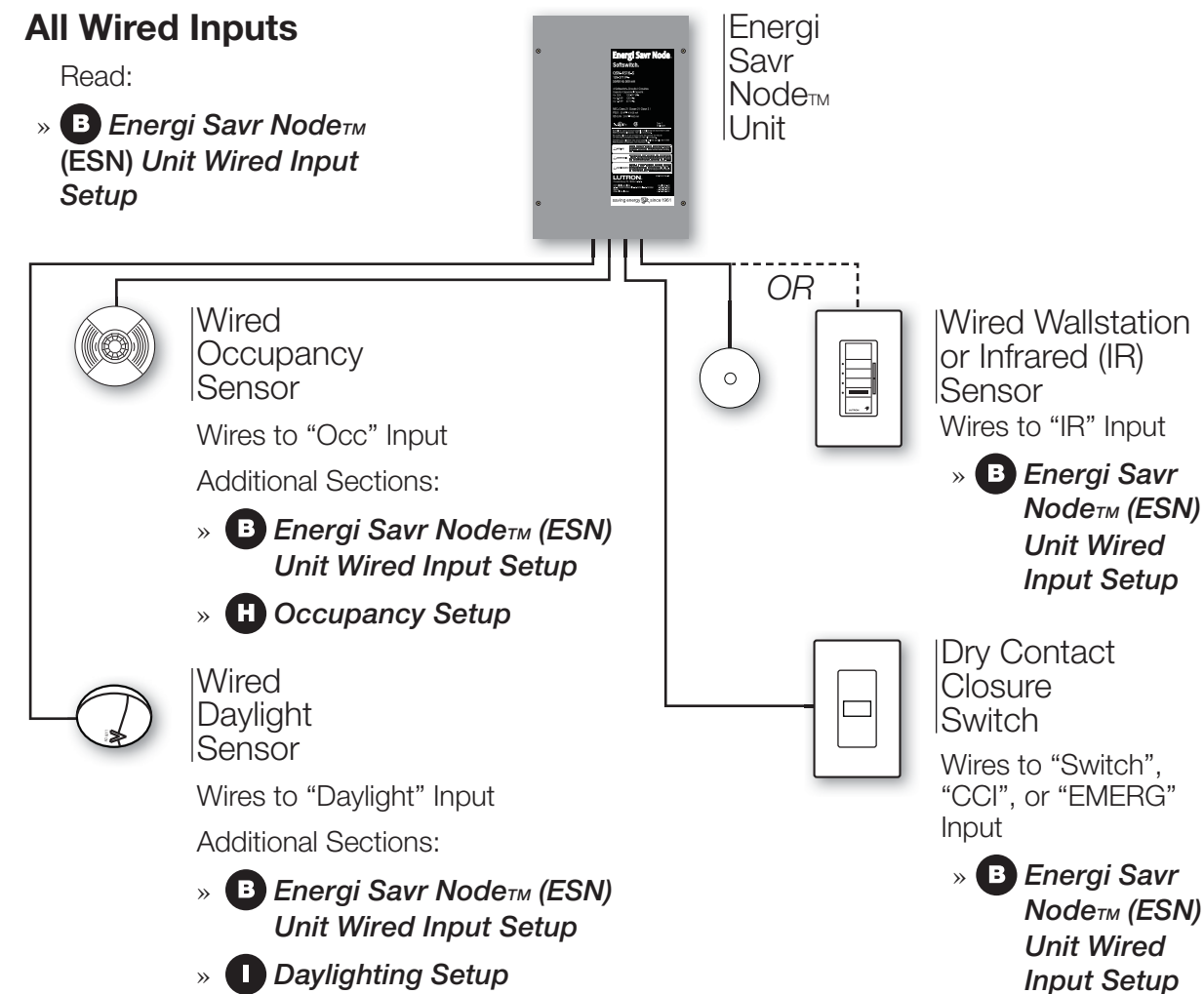
## WIRED INPUTS

If you have wired sensor inputs wired directly to the Energi Savr Node™ unit input group terminal blocks, see below to determine which additional sections to read.

### All Wired Inputs

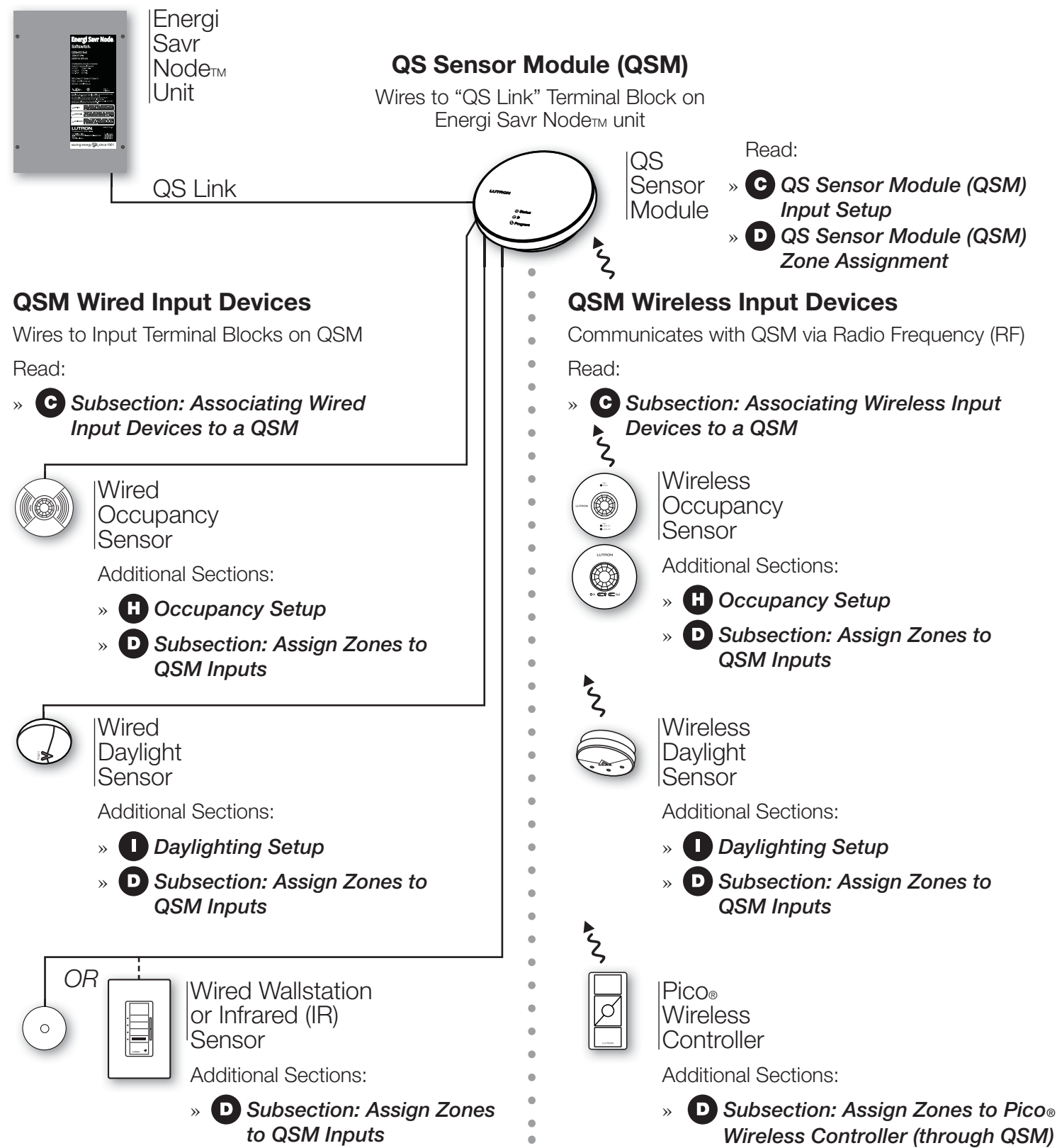
Read:

- » **B Energi Savr Node™ (ESN) Unit Wired Input Setup**



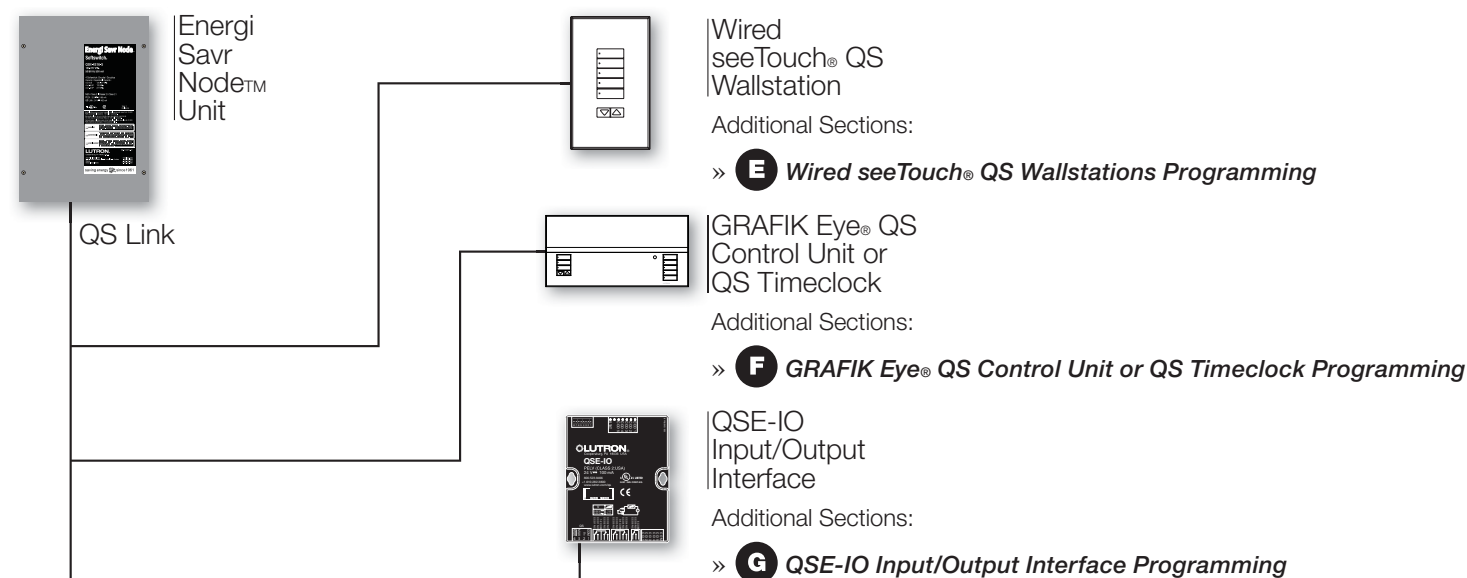
## QS SENSOR MODULE (QSM) WITH WIRED OR WIRELESS INPUT DEVICES

If you have a QSM wired to the Energi Savr Node™ unit QS Link terminal block, read sections **C QS Sensor Module (QSM) Input Setup** and **D QS Sensor Module (QSM) Zone Assignment**. Some parts of the section may not apply, depending on the devices connected to the QSM. See below to determine which additional sub-sections to read for each type of connected device.



## OTHER QS LINK DEVICES

If you have other devices wired to the Energi Savr Node™ unit QS Link terminal block, see below to determine which additional sections to read.



## TROUBLESHOOTING

### LED Feedback

LED	LED Behavior	Description
Occ (Occupancy Sensor)	Continuous On	□ Sensor detects Vacancy
	1 flash per second	⚡ Sensor detects Occupancy
	Off	■ Sensor never detected
Daylight (Daylight Sensor)	Continuous On	□ Sensor is detected
	Flashing	⚡ Sensor information transmitting on the QS link
	Off	■ Sensor never detected/sensor not seeing light
IR (Infrared Receiver)	Continuous On	□ Receiver is detected
	Flashing	⚡ IR button press detected
	Off	■ Receiver never detected
Switch (NECs Class 2 Switch)	Continuous On	□ Switch detected/open
	Flashing	⚡ Switch button press detected
	Off	■ Switch never detected
CCI (Contact Closure Input)	Continuous On	□ Contact detected/open
	Flashing	⚡ Contact closed
	Off	■ Contact never detected
Emerg (Emergency Contact Closure Input)	Continuous On	□ Normal operation/Contact Closed/Jumpered
	Rapid flash	⚡ Emergency Mode/Contact Open/Jumper missing
QS Link	On/Flashing	□ / ⚡ Device transmitting/receiving on the QS link
	3 quick flashes every 4 seconds	⚡ Communication error
	Off	■ Device not transmitting/receiving on the QS link
Wired	Continuous On	□ Wired sensor
Zone	Continuous On	□ Load is on
	Off	■ Load is off

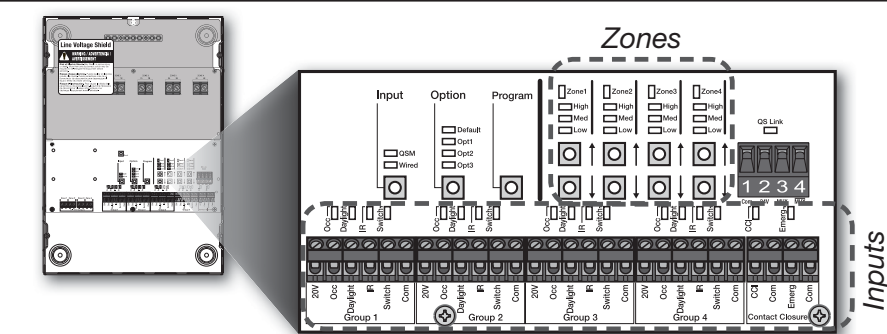
### Troubleshooting using Symptoms

Symptom	Cause	Solution
Unable to add daylight sensor to a zone	Existing daylight sensor already assigned to the zone	Unassign the existing daylight sensor and try again.
Unable to add an occupancy sensor to a zone	16 sensors have already been assigned	No more than 16 sensors can be assigned to one ESN unit. Unassign sensors until below 16 sensor limit.
Daylight sensor fails to turn on a zone	Occupancy sensor is overriding the zone	Daylight sensors will not turn a zone on if an occupancy sensor assigned to that zone detects that the room is vacant.
	Switched zone daylighting: incorrect light level set during Daylighting Setup	Reset the daylighting set point. See <b>I Daylighting Setup</b> .
When associating a QSM to the Energi Savr Node™ unit, the 'QSM' LED flutters for 1 second, then turns off	A QSM has already been associated to the Energi Savr Node™ unit.	To clear the QSM association and any Energi Savr Node™ unit zone assignments to any QSM inputs, press and hold the <b>Input</b> button on the Energi Savr Node™ unit for 10 seconds. The 'Input' LED will flutter for 1 second, then turn off.
When associating a wireless input device to a QSM, the QSM responds with 10 short beeps	Maximum number of associations to the QSM has been exceeded for that wireless input device type.	Unassign any unnecessary wireless inputs of that device type and try again.
When associating a wireless input device to a QSM, the QSM responds with 5 short beeps	Input device is already associated to another QSM on the QS link.	If you choose to ignore the warning and try to associate the same input device to the QSM a second time, the input device will be removed from association with the previous QSM and will now be associated with the new QSM. Note: This will also remove any Energi Savr Node™ programming that the wireless device may have had through the previous QSM.
QS Link LED quickly flashes 3 times every 4 seconds	QS Link communication error.	Check QS Link wiring

### Technical Assistance

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## BUTTON AND LED LOCATIONS



[www.lutron.com](http://www.lutron.com)

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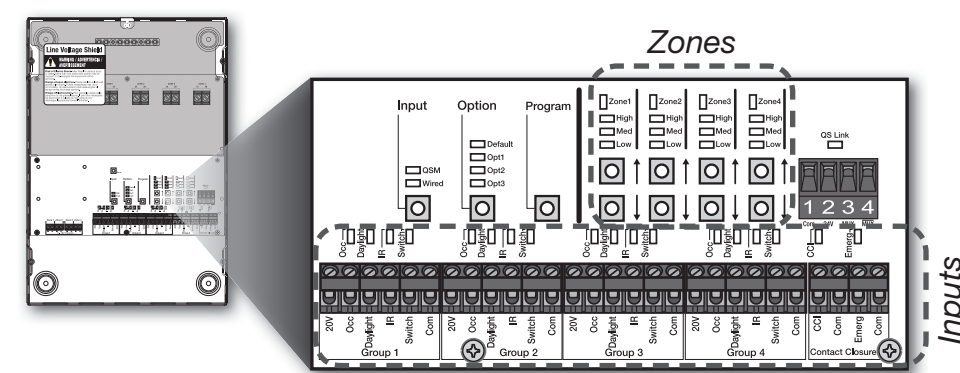
Lutron Electronics Co., Inc. | 7200 Suter Road  
Coopersburg, PA 18036-1299, U.S.A.

## LEDs and BUTTON PRESSES

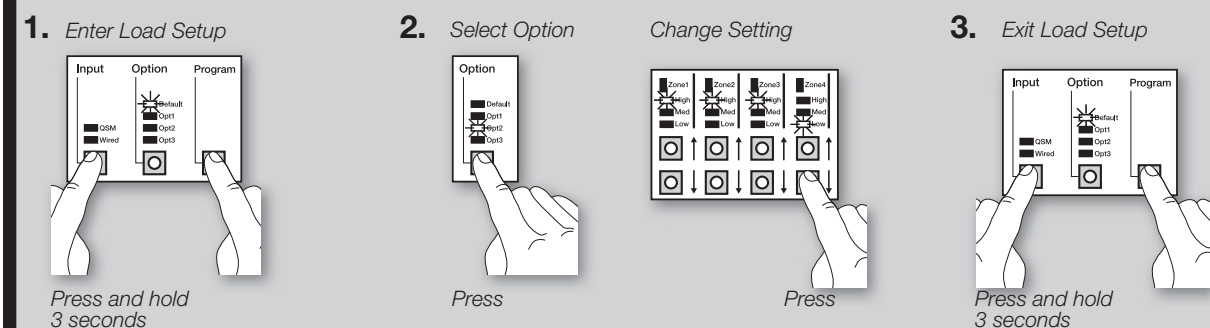
**LED states:**  
 OFF ON Blink/Flash

See written instructions at right.

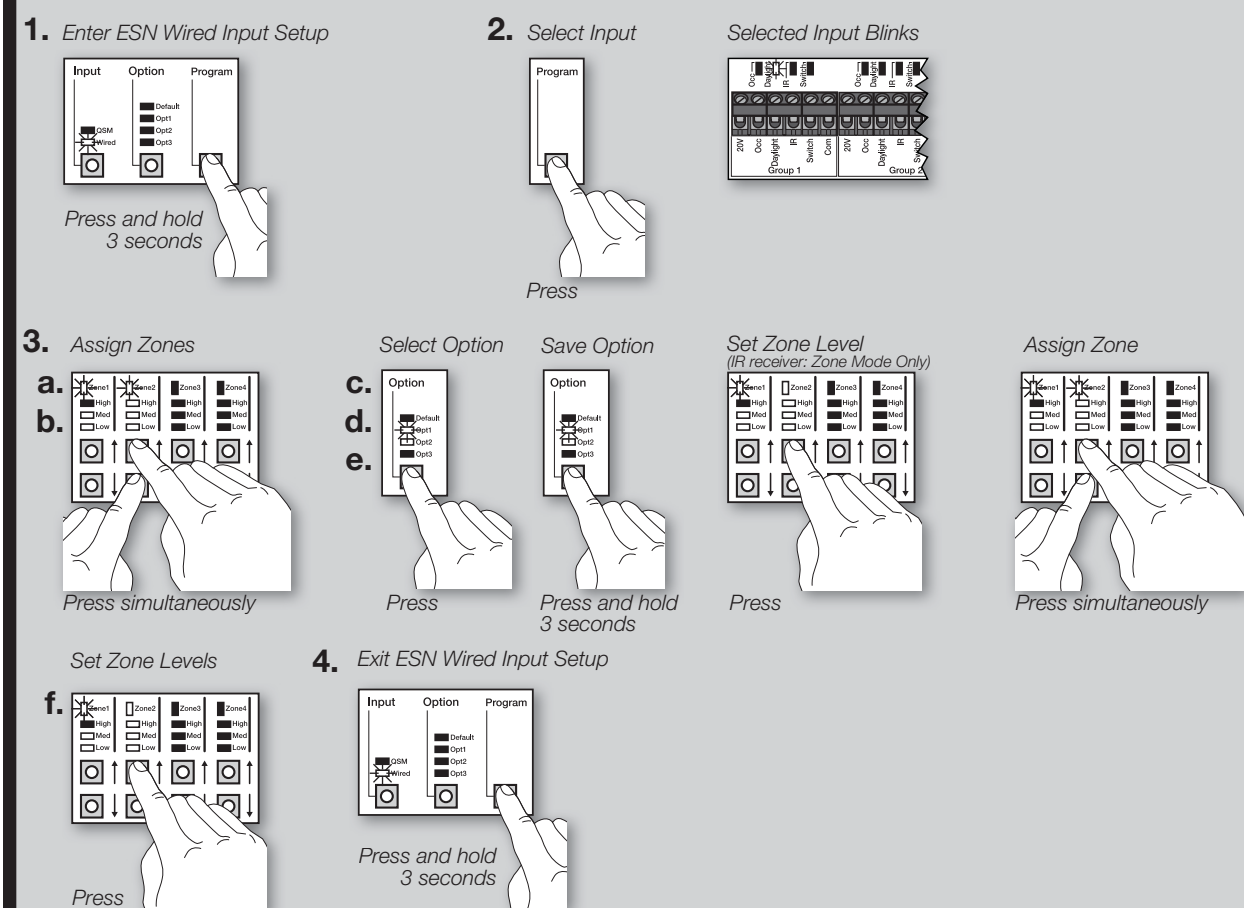
### Button and LED Locations



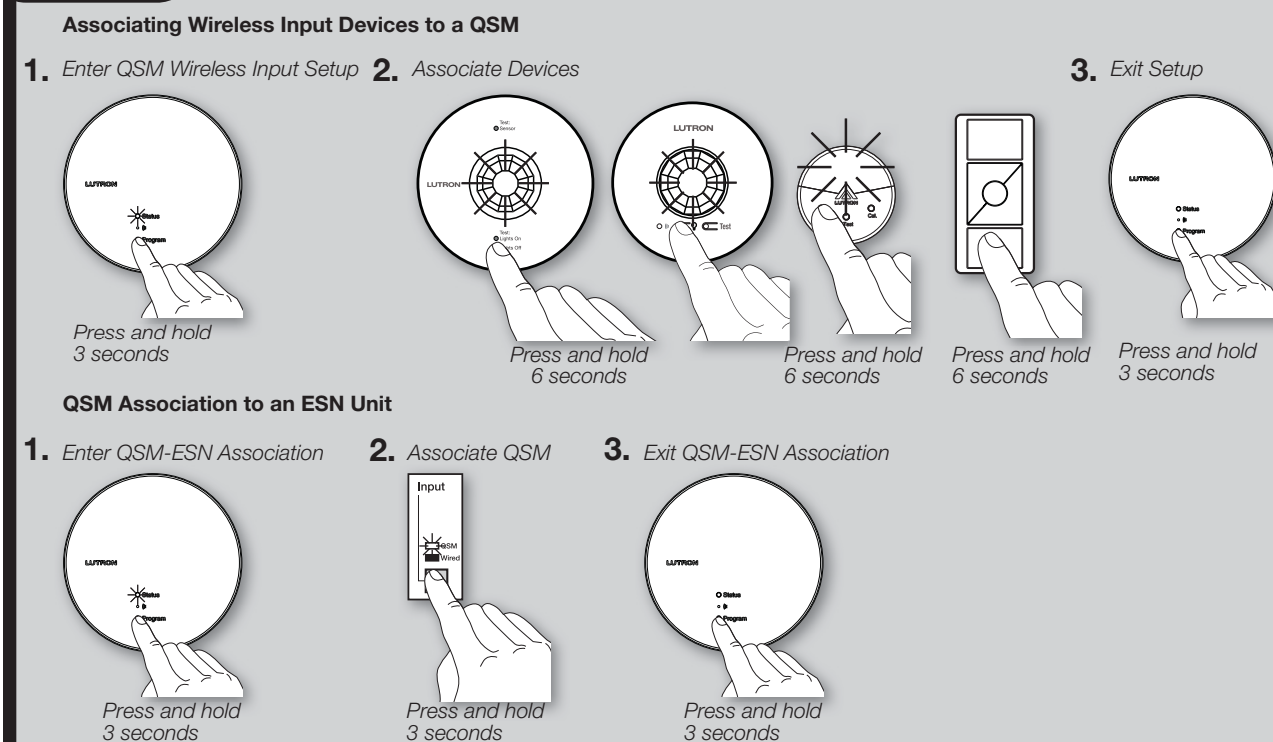
**Figure A Load Setup**



**Figure B ESN Wired Input Setup**



**Figure C QS Sensor Module (QSM) Input Setup**



## PROGRAMMING

### A Load Setup

- Enter Load Setup.** Simultaneously press and hold the **Program** and **Input** buttons for 3 seconds. LEDs for Group 1 Inputs and 'Default' will blink once per second.
- Select options.** Press the **Option** button to select the option and then use the  $\uparrow$  and  $\downarrow$  buttons for each zone to select the choice for each option.

LED	Option	Setting Choices
Opt 2	Load Type	High LED 0-10 V Dimming (default) <sup>1</sup> Med LED 10-0 V Dimming <sup>1</sup> Low LED Switched High LED and Low LED Receptacle
Opt 3 (not available on QSN-4S16-S or QSN-4S16-S-347)	High End Trim	High-Med LEDs 100% maximum (default) down to 55% minimum
Default + Opt 1 (not available on QSN-4S16-S or QSN-4S16-S-347)	Low End Trim	Low-Med LEDs 0% minimum up to 45% maximum
Default + Opt 2	Absolute Minimum Light Level <sup>2</sup>	High-Med-Low LEDs 100% maximum down to 0% minimum (default)

<sup>1</sup> Not available on QSN-4S16-S or QSN-4S16-S-347  
<sup>2</sup> This setting is required in certain cities (i.e. Chicago). Check local electrical codes to verify if required.

- Exit Load Setup.** Simultaneously press and hold the **Program** and **Input** buttons for 3 seconds to exit.

### B Energi Savr Node™ (ESN) Unit Wired Input Setup

- Enter ESN Wired Input Setup.** Press and hold the **Program** button for 3 seconds. LEDs for Group 1 'Occ' and 'Wired' will blink once per second.
- Select input.** Tap the **Program** button to select an input. Corresponding LED (located above input terminal) will blink. Also, LEDs of sensors wired to the Energi Savr Node™ unit will flash to help with identification.
- Setup options.** Follow the appropriate section for each input below.

#### a. Occupancy sensor:

**Assign zone(s).** Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons of any zone to assign the zone to the selected input. A flashing zone LED indicates an assigned zone.

To unassign a zone, simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons of the desired zone. The zone LED will turn off to indicate an unassigned zone.

#### b. Daylight sensor:

**Assign zone(s).** Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons of any zone to assign the zone to the selected input. A flashing zone LED indicates an assigned zone.

**Note:** Each zone can only be assigned to a single daylight sensor input. The zone must be unassigned from the input before assigning to a different daylight sensor input.

**Note:** Any zone set to "Receptacle" load type cannot be assigned to a daylight sensor.

To unassign a zone, simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons of the desired zone. The zone LED will turn off to indicate an unassigned zone.

#### c. IR receiver/IR Wallstation:

The LED for the currently saved option will be steady on. Press the **Option** button to select the desired option. The LED for the selected option will flash.

LED	Option	Setting Choices
Opt 1	Scene Mode	Allows IR remote to select scenes (see Scene Setup for more information) Note: CC-4BRL wallstation will only recall scenes 1-4, and CC-1BRL will only recall scene 1.
Opt 2	Zone mode (default)	Allows setting of preset light levels for each zone

**Save the selected option.** Press and hold the **Option** button for 3 seconds. The LED for the saved option will remain steady on.

**Set zone level (Zone Mode only).** Use the  $\uparrow$  and  $\downarrow$  buttons to adjust zone preset light level.

**Assign zone.** Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons to save zone level (Zone Mode only) and assign the zone to the selected input (Zone Mode and Scene Mode).

To unassign a zone, simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons of the desired zone. The zone LED will turn off to indicate an unassigned zone.

**Note:** For any keypad assigned to control a receptacle zone, Raise/Lower will not control that zone.

**Repeat setting zone level (Zone Mode only) and zone assignment for each zone to be assigned to the selected input.**

#### d. Switch input:

The LED for the currently saved option will be steady on. Press the **Option** button to select the desired option. The LED for the selected option will flash.

#### Switch—NEC® Class 2/PELV dry contact switch

Option LED	Switch Action	Feature	Function
Default	Maintained	Zone toggle Preset/Off (default)	Contact closure or open will toggle the state of assigned zones between a preset and off* (preset level cannot be set to off)
Opt 1	Momentary	Zone toggle Preset/Off	Contact closure will toggle the state of assigned zones between a preset and off* (preset level cannot be set to off)
Opt 2	Maintained (dual action)	Zones Preset/Off	Contact closure will turn assigned zones on to preset level (preset level cannot be set to off) Contact open will turn assigned zones off
Opt 3	Momentary (single action)	Zones On	Contact closure will turn assigned zones on to preset level (preset level can be set to off)

\* If one or more assigned zones are on at time of contact closure/open, all assigned zones will turn off.

**Save the selected option.** Press and hold the **Option** button for 3 seconds. The LED for the selected option will remain steady on.

Continued next column...

### Energi Savr Node™ (ESN) Unit Wired Input Setup - continued

**Set zone level.** Use the  $\uparrow$  and  $\downarrow$  buttons to adjust zone preset light level.

**Assign zone.** Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons to save the zone level and assign the zone to the selected input.

To unassign a zone, simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons of the desired zone. The zone LED will turn off to indicate an unassigned zone.

**Repeat setting zone level and zone assignment for each zone to be assigned to the selected input.**

#### e. CCI input:

The LED for the currently saved option will be steady on. Press the **Option** button to select the desired option. The LED for the selected option will flash.

#### CCI—Contact Closure Input

Option LED	Switch Action	Feature	Function
Default	Momentary	Sweep to Off*	Contact closure will turn assigned zones Off
Opt 1	Maintained	Enable/Disable Afterhours Mode†	Contact closure will enable Afterhours Mode Contact open will disable Afterhours Mode†
Opt 2	Maintained	Zones Preset/Off	Contact closure will set assigned zones to preset level (preset level cannot be set to off) Contact open will set assigned zones off

\* By default, all zones are assigned and set to off, but zones can be unassigned and zone levels are adjustable to any level.

† The zone must be set to Afterhours Mode to function properly. Please refer to **Occupancy Setup**.

‡ Default Afterhours Mode setting: 5 minute warning (assigned zones flash 3 times) before zones turn off; pressing any button activates a 45 minute delay, after which the 5 minute warning will activate again. Receptacle loads will not blink-warn in Afterhours Mode.

**Save the selected option.** Press and hold the **Option** button for 3 seconds. The LED for the selected option will remain steady on.

**Set zone levels.** Use the  $\uparrow$  and  $\downarrow$  buttons to adjust zone preset light levels.

**Assign/Unassign zones.** Simultaneously press the  $\uparrow$  and  $\downarrow$  buttons of any zone to save the zone level and assign or unassign the zone to/from the selected input. A flashing 'Zone' LED indicates an assigned zone. A 'Zone' LED that is off indicates an unassigned zone.

**Repeat setting zone level and zone assignment for each zone to be assigned to the selected input.**

#### f. Emerg input:

**Set zone levels.** Use the  $\uparrow$  and  $\downarrow$  buttons to adjust zone preset light levels.

**Assign zone.** Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons to save the zone level and assign the zone to the selected input.

To unassign a zone, simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons of the desired zone. The zone LED will turn off to indicate an unassigned zone.

Repeat steps 2 and 3 for each desired input.

- Exit Input Setup.** Press and hold the **Program** button for 3 seconds to exit.

### C QS Sensor Module (QSM) Input Setup

#### Associating Wired Input Devices to a QSM

Once wired inputs are connected to the QSM, upon power up, the QSM will automatically detect and configure the wired inputs after a valid signal is received. For example: occupied room, IR signal, etc.

If any wired inputs are moved to a different connection on the QSM, the inputs will need to be re-detected. To force the QSM to re-detect all wired inputs, press and hold the Program button on the QSM for 10 seconds.

#### Associating Wireless Input Devices to a QSM

Wireless input devices must be associated to only one QSM before they are assigned to control system devices.

- Enter Input Setup.** Press and hold the **Program** button on the QSM for 3 seconds. You will hear a long 1-second beep upon entering, and the 'Status' LED will blink.
- Associate devices.** For each wireless device you wish to associate, press and hold the appropriate button on the device according to the following table:

Input Device	Button	Press For	Device Feedback	Maximum Per QSM
Radio Powr Savr™ Occupancy Sensor	Light or Lights Off	6 seconds	Dome flashes briefly	10
Radio Powr Savr Daylight Sensor	Link	6 seconds	Dome flashes briefly	10
Pico® Wireless Controller	Light or Off (bottom button)	6 seconds	N/A	10

After each successful input association, QSM will respond with 3 long beeps (2 seconds each).

**Note:** If QSM responds in any other way, consult the **Troubleshooting** section on the first page of this guide.

- Exit Input Setup.** Press and hold the **Program** button on the QSM for 3 seconds to exit.

#### QSM Association to an ESN Unit

- Press and hold the **Program** button on the QSM for 3 seconds. You will hear a long 1-second beep upon entering, and the 'Status' LED will blink. The input LEDs on Energi Savr Node™ unit(s) on the QS link will sequence through each input group.
- Associate QSM.** On the Energi Savr Node™ unit to which the QSM will be associated, press and hold the **Input** button for 3 seconds until the 'QSM' LED on the Energi Savr Node™ unit begins to flash.
- Exit QSM Association.** Press and hold the **Program** button on the QSM for 3 seconds to exit.

## Figure D QS Sensor Module (QSM) Zone Assignment

### Assigning Zones to QSM Inputs (Occupancy, Daylight, IR)

- Enter Zone Assignment**  
Press and hold 3 seconds
- Select QSM**  
Press
- Wired: Select Inputs to Display**  
Press
- Wireless: Select Occupancy Sensor**  
Press and hold 6 seconds
- Select Daylight Sensor**  
Press and hold 6 seconds
- Assign Zones**  
Press simultaneously
- Exit Zone Assignment**  
Press and hold 3 seconds

### Assigning Zones to Pico® Wireless Controllers (through QSM)

- Enter Pico® Wireless Controller Assignment**  
Press and hold 3 seconds
- Select Option (optional)**  
Press
- Save Option (optional)**  
Press and hold 3 seconds
- Set Zone Level (Zone Mode Only)**  
Press
- Assign Zone**  
Press simultaneously
- Exit Pico® Wireless Controller Assignment**  
Press and hold 3 seconds

## Figure E Wired seeTouch® QS Wallstation Programming

- Enter Wallstation Programming**  
Press and hold 3 seconds
- Select Option**  
Press
- Save Option**  
Press and hold 3 seconds
- Select Button (Zone Toggle Only)**  
Press
- Set Zone Level (Zone Toggle Only)**  
Press
- Assign Zone**  
Press simultaneously
- Exit Wallstation Programming**  
Press and hold 3 seconds

## Figure F GRAFIK Eye® QS Control Unit or QS Timeclock Programming

- Enter QS Programming**  
Press and hold 3 seconds
- Add/Program Event**  
Optional for GRAFIK Eye® QS
- Assign Zones**  
Press simultaneously
- Exit QS Programming**  
Press and hold 3 seconds

## G QSE-IO Input/Output Interface Programming

### Scene Selection Control

- Enter Scene Selection Programming**  
Press and hold 3 seconds
- Assign Zones**  
Press simultaneously
- Exit Scene Selection Programming**  
Press and hold 3 seconds

### Zone Toggle Control

- Enter Zone Toggle Programming**  
Press and hold 3 seconds
- Select Input**  
Press
- Set Zone Level**  
Press
- Assign Zones**  
Press simultaneously
- Exit Zone Toggle Programming**  
Press and hold 3 seconds

## D QS Sensor Module (QSM) Zone Assignment

### Assigning Zones to QSM Inputs (Occupancy, Daylight, IR)

- Enter Zone Assignment.** Press and hold the **Program** button on the Energi Savr Node™ unit for 3 seconds. LEDs for Group 1 'Occ' and 'Wired' will blink once per second.
- Select QSM.** Press the **Input** button on the Energi Savr Node™ unit to select 'QSM'.
- Wired inputs: Select inputs to display.** Use the **Option** button on the Energi Savr Node™ unit to sequence through the following input groups. The option LEDs will blink to indicate which QSM input group is being displayed:

LED	Input Group
Default	QSM wired inputs 1-4.

Select wired input. Each input from an associated QSM will be indicated by a steady on input LED as listed below:

LED	Input Type
Occ	Indicates an associated QSM occupancy sensor (wired and wireless).
Daylight	Indicates an associated QSM daylight sensor (wired and wireless).
IR	Indicates an associated QSM IR receiver (wired only).

Press the **Program** button to sequence through each associated input. The LED corresponding to the selected input will blink (other associated input LEDs will remain steady on). Also, the LED of a sensor wired to a QSM will blink to help with identification.

### Select wireless input:

Wireless Occupancy sensor: Press and hold the Lights Off or  $\odot$  button for 6 seconds, until the sensor's dome begins to flash. The Energi Savr Node™ unit will automatically select that input.

Wireless Daylight sensor: Press and hold the Link button for 6 seconds, until the sensor's dome begins to flash. The Energi Savr Node™ unit will automatically select that input.

- Assign/Unassign zones.** Simultaneously press the  $\uparrow$  and  $\downarrow$  buttons of any zone to assign or unassign the zone to/from the selected input. A flashing 'Zone' LED indicates an assigned zone. A 'Zone' LED that is off indicates an unassigned zone. **Note: Any zone set to "Receptacle" load type cannot be assigned to a daylight sensor.**
- Exit Zone Assignment.** Press and hold the **Program** button for 3 seconds to exit.

### Assigning Zones to Pico® Wireless Controllers (through QSM)

- Enter Pico® wireless controller Assignment.** Simultaneously press and hold the **top and bottom** buttons on the Pico® wireless controller for 3 seconds. The QSM will beep for 1 second and the 'Status' LED on the QSM will flash 3 times per second. The input LEDs on the Energi Savr Node™ unit(s) will flash sequentially through each input group, and all unassigned zones will turn off.
- Setup options.** Press the **Option** button to select the desired option. The LED for the selected option will flash.

LED	Option
Default	'Scene + off'
Opt 1	Scene mode
Opt 2	Zone Mode (default)

Save the selected option. Press and hold the **Option** button for 3 seconds. The LED for the selected option will remain steady on.

**Zone Mode: Set zone levels.** Use the  $\uparrow$  and  $\downarrow$  buttons to adjust zone preset light levels. Note: If a zone is left off and is assigned, the default light level of 100% will be saved.

**Scene Mode:** Scene assignments are factory set. The top button is Scene 1, the bottom button is the Off Scene, and the Favorite button (if present) is Scene 16. Refer to  $\odot$  Scene Setup to adjust zone levels for each scene.

- Assign/Unassign zones.** Simultaneously press the  $\uparrow$  and  $\downarrow$  buttons of any zone to assign or unassign the zone. A blinking 'Zone' LED indicates an assigned zone. A 'Zone' LED that is off indicates an unassigned zone. Repeat steps 2 and 3 for each desired zone-to-Pico wireless controller assignment. **Note: For any keypad assigned to control a receptacle zone, Raise/Lower will not control that zone.**

- Exit Pico® wireless controller Assignment.** Simultaneously press and hold the **top and bottom** buttons on the Pico® wireless controller for 3 seconds to exit.

## E Wired seeTouch® QS Wallstation Programming

- Enter Wallstation Programming.** Simultaneously press and hold the **top and bottom** buttons (excluding raise/lower) on the wallstation for 3 seconds. The Input LEDs on the Energi Savr Node™ unit(s) will flash sequentially through each input group.

Note: On wallstations with dual columns, each column is set up separately.

- Select option.** Press the **Option** button on the Energi Savr Node™ unit to select the scene wallstation type. LED for currently saved type will remain steady on.

Flashing LED	Scene Wallstation Type
Default	'Scene + off'
Opt 1	'Scene'
Opt 2	'Zone Toggle'
Opt 3	'Special Mode' (Partitioning, Sequencing)*

\* Wallstation must already be set up as a Partitioning or Sequencing Control. If any other Wallstation Type is selected for a Special Mode wallstation, the wallstation is 'reprogrammed' to the selected type, and cannot be re-selected as a Special Mode wallstation.

**Save option.** Press and hold the **Option** button for 3 seconds to save the wallstation type. The LED for the selected wallstation type will flutter for 1 second, then remain steady.

**Select wallstation buttons (Zone Toggle only).** To assign a specific Energi Savr Node™ unit zone to a wallstation button, press the wallstation button you wish to assign the zone to. The button LED will blink slowly.

**Set zone levels (Zone Toggle only).** Use the  $\uparrow$  and  $\downarrow$  buttons to adjust zone preset light levels.

- Assign/Unassign zones.** All types: Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons on the Energi Savr Node™ unit to assign/unassign each desired zone to a wallstation. A flashing 'Zone' LED indicates an assigned zone. A 'Zone' LED that is off indicates an unassigned zone. **Note: For any keypad assigned to control a receptacle zone, Raise/Lower will not control that zone.**
- Exit Wallstation Programming.** Simultaneously press and hold the **top and bottom** buttons on the wallstation for 3 seconds to exit.

## F GRAFIK Eye® QS Control Unit or QS Timeclock Programming

Scene buttons and/or remote timeclock events can affect selected Energi Savr Node™ zones.

- Enter GRAFIK Eye® QS or QS Timeclock Programming.** Simultaneously press and hold the **top and bottom** scene buttons on the GRAFIK Eye® QS or QS Timeclock unit for 3 seconds. The input LEDs on the Energi Savr Node™ unit(s) will flash sequentially through each input group.
- 2a. For the GRAFIK Eye® QS (Optional; if associating scene buttons only, skip to Step 3): Add a Remote Timeclock Event.** Refer to the installation instructions for the GRAFIK Eye® QS control unit at [www.lutron.com/qs](http://www.lutron.com/qs). Add a Timeclock Event, and choose Remote (not Local) as the event type. Return to the Timeclock menu on the GRAFIK Eye® QS control unit, and choose "Program remote". Choose the day and event, then perform Step 3 below. Press OK on the GRAFIK Eye® QS control unit. Repeat for other events. Go to Step 4.
- 2b. For the QS Timeclock: Add a Timeclock Event.** Refer to the installation instructions for the QS Timeclock, and add a Timeclock Event. Return to the Timeclock menu on the QS Timeclock, and choose "Program remote". Choose the day and event, then perform Step 3 below. Press OK on the QS Timeclock. Repeat for other events. Go to Step 4.
- Assign/Unassign Zones.** Simultaneously press the  $\uparrow$  and  $\downarrow$  buttons of any zone to assign or unassign the zone. A blinking 'Zone' LED indicates an assigned zone. A 'Zone' LED that is off indicates an unassigned zone.
- Exit GRAFIK Eye® QS or QS Timeclock Programming.** Simultaneously press and hold the **top and bottom** scene buttons on the GRAFIK Eye® QS or QS Timeclock unit for 3 seconds to exit.

## G QSE-IO Input/Output Interface Programming

### Scene Selection Control

Refer to the Installation Instructions provided with the QSE-IO for proper DIP switch settings.

The Energi Savr Node™ unit can be associated to a QSE-IO that is set in a Scene configuration. This can be used to change scenes on your Energi Savr Node™ unit using contact closure inputs on the QSE-IO, or to monitor scene changes on your Energi Savr Node™ unit using contact closure outputs on the QSE-IO.

To associate a QSE-IO that is set in a Scene configuration to an Energi Savr Node™ unit(s):

- Press and hold the **Program** button on the QSE-IO for 3 seconds. The 5 output LEDs on the QSE-IO will cycle. The input LEDs on the Energi Savr Node™ unit(s) will flash sequentially through each input group.
- Assign/Unassign zones.** Simultaneously press the  $\uparrow$  and  $\downarrow$  buttons of any zone to assign or unassign the zone. A blinking 'Zone' LED indicates an assigned zone. A 'Zone' LED that is off indicates an unassigned zone.
- Exit Scene Selection Programming.** Press and hold the **Program** button on the QSE-IO for 3 seconds.

### Zone Toggle Control

Refer to the Installation Instructions provided with the QSE-IO for proper DIP switch settings.

The Energi Savr Node™ unit can be associated to a QSE-IO that is set in Zone Toggle configuration. This can be used to toggle zones on your Energi Savr Node™ unit using contact closure inputs into the QSE-IO, or to monitor the state (on or off) of the zones on your Energi Savr Node™ unit using contact closure outputs out of the QSE-IO.

To associate a QSE-IO that is set in a Zone Toggle configuration to an Energi Savr Node™ unit(s):

- Enter Zone Toggle Programming.** Press and hold the **Program** button on the QSE-IO for 3 seconds. The first output LED will flash indicating "input 1" is selected. The input LEDs on the Energi Savr Node™ unit(s) will flash sequentially through each input group.
- Select input.** Tap the **Program** button on the QSE-IO to select an input. Corresponding LED will blink.
- Set light levels.** Use the  $\uparrow$  and  $\downarrow$  buttons on the Energi Savr Node™ unit to set the desired light level for each zone.
- Assign/Unassign zones.** Simultaneously press the  $\uparrow$  and  $\downarrow$  buttons of any zone to assign or unassign the zone. A blinking 'Zone' LED indicates an assigned zone. A 'Zone' LED that is off indicates an unassigned zone. Repeat steps 2-4 for each desired QSE-IO input.
- Exit Zone Toggle Programming.** Press and hold the **Program** button on the QSE-IO for 3 seconds to exit.

## Figure G QSE-IO Input/Output Interface Programming - continued

### Partition Control

- Enter Partition Programming** Press and hold 3 seconds
- Select Input** Press
- Assign Zones** Press simultaneously
- Exit Partition Programming** Press and hold 3 seconds

### Sequencing Control

- Enter Sequencing Programming** Press and hold 3 seconds
- Assign Zones** Press simultaneously
- Exit Sequencing Programming** Press and hold 3 seconds

## Figure H Occupancy Setup

### Set Zone Response to Occupancy Sensors

- Enter Occupancy Setup** Press and hold 3 seconds
- Select Option** Press
- Change Setting** Press
- Exit Occupancy Setup** Press and hold 3 seconds

### Select Scene for Occupied State

- Enter Occupied State Setup** Press and hold 3 seconds
- Select Scene (Scenes 1-4)** Press
- View Scenes 5-16** Press and hold 3 seconds
- Select Scene (Scenes 5-16)** Press
- Set Occupied Scene** Press and hold 3 seconds
- Exit Occupied State Setup** Press and hold 3 seconds

## Figure I Daylighting Setup

- Enter Daylighting Setup** Press and hold 3 seconds
- Select Option** Press
- Set Zone Levels** Press
- Exit Daylighting Setup** Press and hold 3 seconds

## Figure J Scene Setup

- Enter Scene Setup** Press and hold 3 seconds
- Select Scene (Scenes 1-4)** Press
- View Scenes 5-16** Press and hold 3 seconds
- Select Scene (Scenes 5-16)** Press
- Set Zone Levels** Press
- Enter Scene Setup** Press and hold 3 seconds

## G QSE-IO Input/Output Interface Programming - continued

### Partition Control

**Refer to the Installation Instructions provided with the QSE-IO for proper DIP switch settings.** This can be used to join or detach scene activations between zones on an Energi Savr Node™ unit and/or GRAFIK Eye™ QS control units based on the position of movable walls.

To associate a QSE-IO that is set in a Partition Control configuration to an Energi Savr Node™ unit(s):

- Enter Partition Control Programming.** Press and hold the **Program** button on the QSE-IO for 3 seconds. The first output LED will flash indicating "input 1" is selected. The input LEDs on the Energi Savr Node™ unit(s) will flash sequentially through each input group.
  - Select input.** Tap the **Program** button on the QSE-IO to select an input. Corresponding LED will blink.
  - Assign zones.** Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons on the Energi Savr Node™ unit to assign each desired zone to "input 1" of the QSE-IO. A flashing 'Zone' LED indicates an assigned zone.  
To unassign zones from the QSE-IO, simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons for the desired zone. The 'Zone' LED will turn off to indicate the zone is unassigned.
- Repeat steps 2 and 3 for each desired QSE-IO input.
- Exit Partition Control Programming.** Press and hold the **Program** button on the QSE-IO for 3 seconds to exit.

### Sequencing Control

**Refer to the Installation Instructions provided with the QSE-IO for proper DIP switch settings.** The Energi Savr Node™ unit can be associated to a QSE-IO that is set in Sequencing Control configuration. This can be used to start and stop automatic sequencing of scenes 5-16.

To associate a QSE-IO that is set in a Sequencing Control configuration to an Energi Savr Node™ unit(s):

- Enter Sequencing Control Programming.** Press and hold the **Program** button on the QSE-IO for 3 seconds. The first output LED will flash indicating "input 1" is selected. The input LEDs on the Energi Savr Node™ unit(s) will flash sequentially through each input group.
  - Assign zones.** Simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons on the Energi Savr Node™ unit to assign each desired zone to "input 1" of the QSE-IO. A flashing 'Zone' LED indicates an assigned zone.  
To unassign zones from the QSE-IO, simultaneously press then release the  $\uparrow$  and  $\downarrow$  buttons for the desired zone. The 'Zone' LED will turn off to indicate the zone is unassigned.
- Exit Sequencing Control Programming.** Press and hold the **Program** button on the QSE-IO for 3 seconds to exit.

## H Occupancy Setup

### Set Zone Response to Occupancy Sensors

- Enter Occupancy Setup.** Simultaneously press and hold the **Program** and **Input** buttons for 3 seconds. LEDs for Group 1 Inputs and 'Default' for each zone will flash.

- Select 'Default'.** Use the **Option** button to select 'Default'.

**Select response.** Use the  $\uparrow$  and  $\downarrow$  buttons to select the response type for each desired zone:

Flashing LED	Zone Response Type
High	Occupancy mode (auto on/off)
Med	Vacancy mode (manual on/auto off)
Low	Afterhours mode*

\* CCI must be set up for Afterhours mode (see section B, step 3e).

- Exit Occupancy Setup.** Simultaneously press and hold the **Program** and **Input** buttons for 3 seconds to exit.

### Select Scene for Occupied State

Note: All zones use the same 'Occupied Scene' and cannot be set on a zone-by-zone basis. All zones use the 'Off Scene' for the unoccupied/vacant state.

- Enter Occupied State Setup.** Simultaneously press and hold the **Program** and **Option** buttons for 3 seconds. Group 2 Input LEDs will flash, and the 'Default' LED will light.

- Select Scene.** Press the **Option** button to select a scene:

Scenes 1-4

LED Legend:  = steady on  = off

Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level
1	<input type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	3	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	50%
2	<input checked="" type="checkbox"/> Default <input type="checkbox"/> Opt1 <input type="checkbox"/> Opt2 <input type="checkbox"/> Opt3	75%	4	<input checked="" type="checkbox"/> Default <input type="checkbox"/> Opt1 <input type="checkbox"/> Opt2 <input type="checkbox"/> Opt3	25%

Scenes 5-16

Press and hold the **Option** button for 10 seconds, then use the **Option** button to select a scene.

LED Legend:  = flashing  = off

Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level
5	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	8	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	11	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	14	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%
6	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	9	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	12	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	15	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%
7	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	10	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	13	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	16	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%

- Set 'Occupied Scene'.** Press and hold the **Input** button for 3 seconds to set the currently selected scene as the 'Occupied Scene'. The 'QSM' and 'Wired' LEDs will turn on to indicate the selection is complete.

- Exit Occupied State Setup.** Simultaneously press and hold the **Program** and **Option** buttons for 3 seconds to exit.

## I Daylighting Setup

Daylighting setup should be performed during the daytime when there is consistent but indirect sunlight. Dark, cloudy days or days with highly variable cloud cover that frequently changes the sunlight conditions should be avoided. Additionally, times of day when the sunlight penetrates directly into the space should be avoided (such as morning or evening).  
**Note: Any zone set to "Receptacle" load type cannot be assigned to a daylight sensor.**

### Set Daylight Sensor Setpoint

- Enter Daylighting Setup.** Simultaneously press and hold the **Program** and **Input** buttons for 3 seconds. LEDs for Group 1 Inputs and 'Default' for each zone will flash.
- Select option.** Use the **Option** button to select 'Opt1'.
- Set light levels.** Use the  $\uparrow$  and  $\downarrow$  buttons to set the approximate light level (or, in the case of switched zones, the minimum light level) that you wish to maintain in the space.
- Exit Daylighting Setup.** Simultaneously press and hold the **Program** and **Input** buttons for 3 seconds to exit.

## J Scene Setup

- Simultaneously press and hold the **Program** and **Option** buttons for 3 seconds. Group 2 Input LEDs will flash, and the 'Default' LED will light.

- Select Scene.** Press the **Option** button to select a scene:

Scenes 1-4

LED Legend:  = steady on  = off

Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level
1	<input type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	3	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	50%
2	<input checked="" type="checkbox"/> Default <input type="checkbox"/> Opt1 <input type="checkbox"/> Opt2 <input type="checkbox"/> Opt3	75%	4	<input checked="" type="checkbox"/> Default <input type="checkbox"/> Opt1 <input type="checkbox"/> Opt2 <input type="checkbox"/> Opt3	25%

Scenes 5-16

Press and hold the **Option** button for 10 seconds, then use the **Option** button to select a scene.

LED Legend:  = flashing  = off

Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level	Scene #	LED Pattern	Default Level
5	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	8	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	11	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	14	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%
6	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	9	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	12	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	15	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%
7	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	10	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	13	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%	16	<input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Opt1 <input checked="" type="checkbox"/> Opt2 <input checked="" type="checkbox"/> Opt3	100%

- Set light levels.** Use the  $\uparrow$  and  $\downarrow$  buttons to adjust the light level for each zone.

To make a zone unaffected, press and hold the  $\downarrow$  button—the 'High', 'Med', and 'Low' LEDs will turn off. Continue holding until only the 'Med' LED is steady on.

To make a zone affected again, press the  $\uparrow$  button until you see a combination of the 'High', 'Med', and 'Low' LEDs steady on or flashing.

- Exit Scene Setup.** Simultaneously press and hold the **Program** and **Option** buttons for 3 seconds to exit.

**Note:** The fade time between scenes is factory set to 3 seconds, and is not adjustable.

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