

# Energi Savr Node™

manual programming guide

English

Energi Savr Node™ with Phase Adaptive Control (QSNE-4A-D)

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## 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 app available from the *Apple AppStore* online marketplace.
- Only use compatible Lutron® sensors and controls.

## USING THIS GUIDE

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

**LUTRON.**

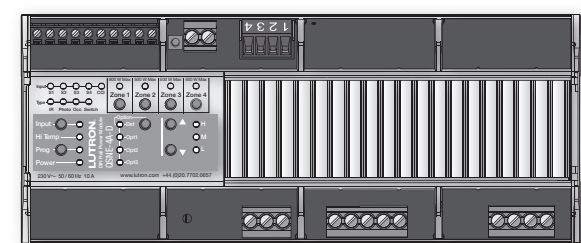
## LOAD SETUP

### All Energi Savr Node™ (ESN) units

Read:

- » **A Load Setup**

### Energi Savr Node™ with Phase Adaptive Control (QSNE-4A-D)



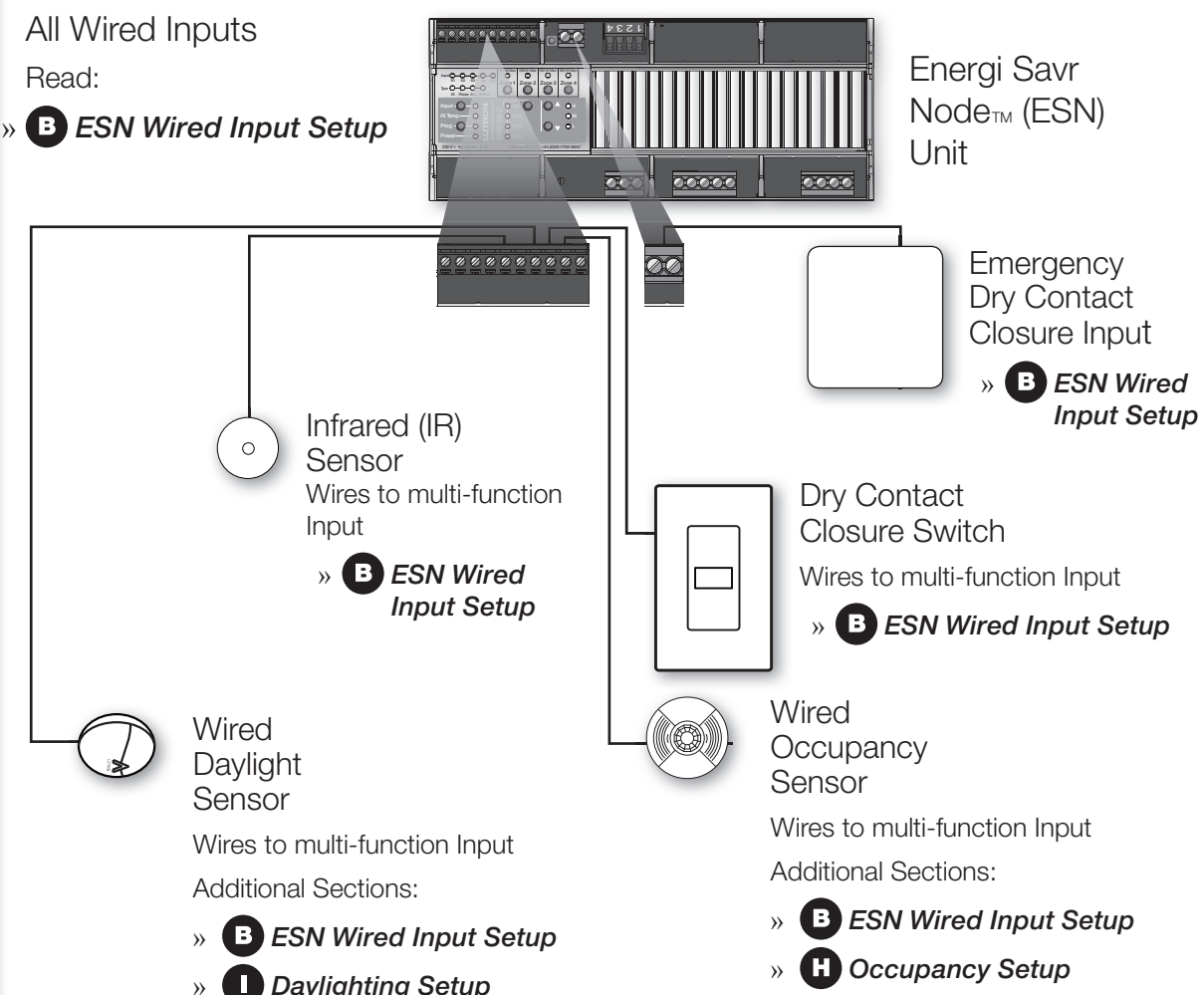
## CONFIGURATION WHEN USING WIRED INPUTS

After Load Setup, if you have wired sensor inputs wired directly to the Energi Savr Node™ (ESN) unit multi-function input terminal blocks, see below to determine which additional sections to read.

All Wired Inputs

Read:

- » **B ESN Wired Input Setup**



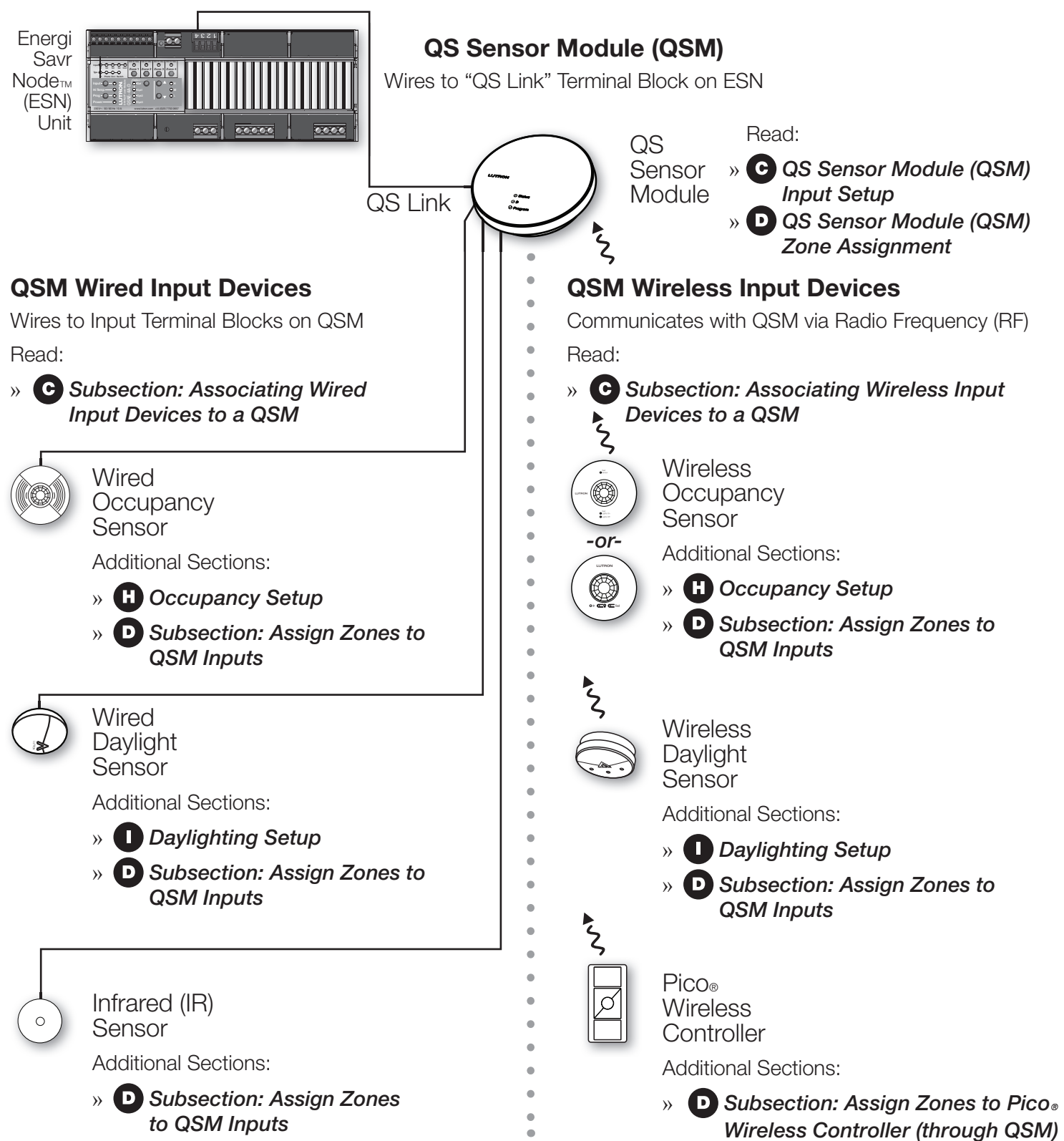
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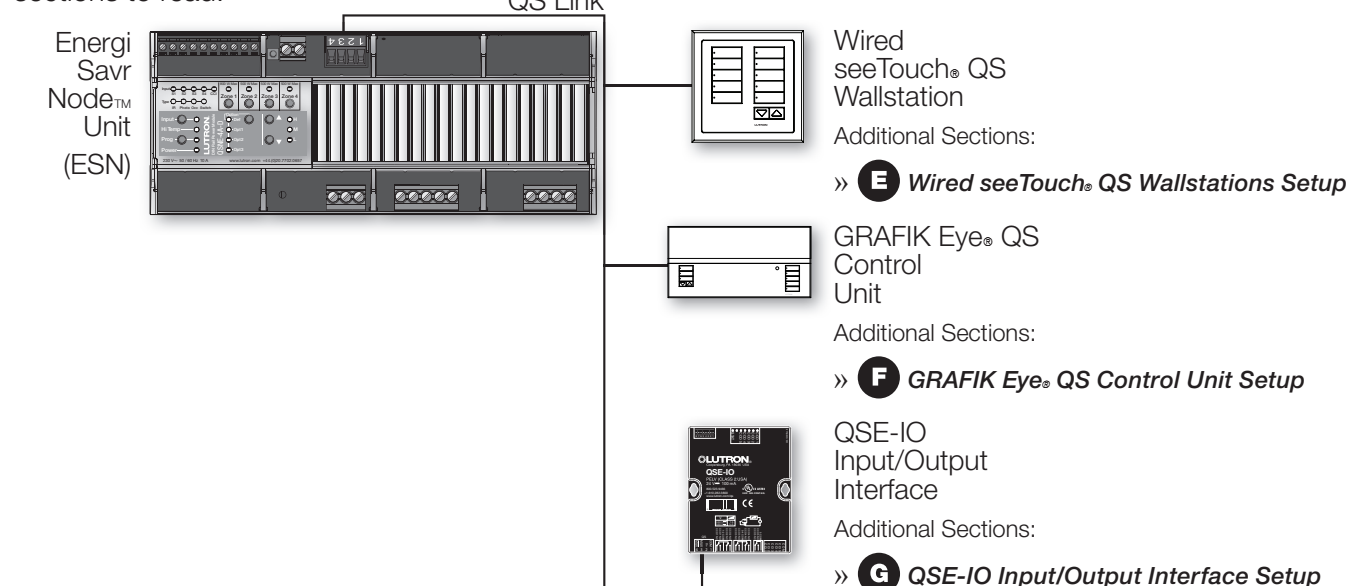
## CONFIGURATION WHEN USING QS SENSOR MODULE (QSM)

After Load Setup, if you have a QSM wired to the ESN 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 ESN QS Link terminal block, see below to determine which additional sections to read.



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## TROUBLESHOOTING

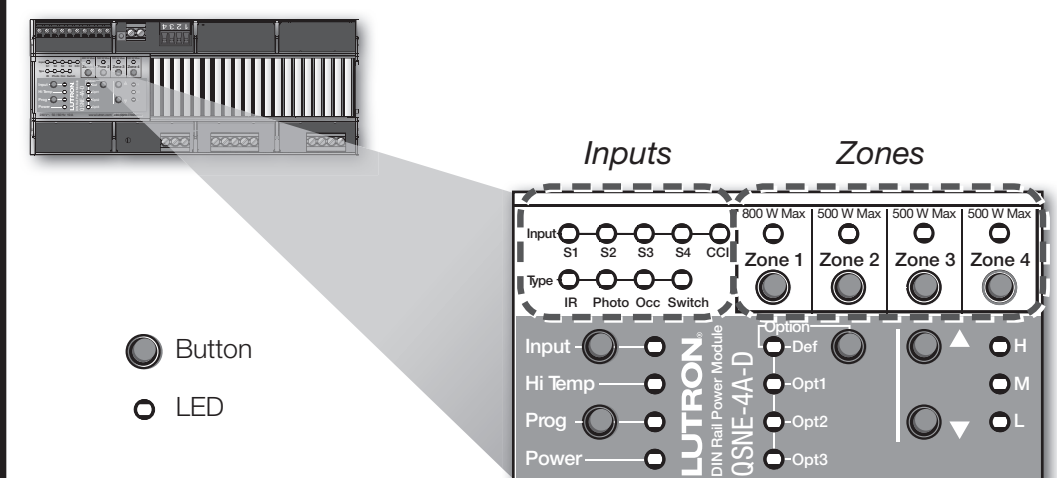
### LED Diagnostic Indicators

LED	LED Behavior	Description
"Power"	Continuous On	Normal operation
	Off	General system failure/No power; verify breaker is on
"Hi Temp" (High Temperature)	Off	Normal Operation
	1 second on, 7 seconds off	Unit is too hot, loads scaled to 25% power
	Continuous On	Unit is too hot, loads turned off
"Prog" (Program)	Flashing: 1 blink/sec	Unit was overheated and has now cooled to acceptable temperature
	Off	Device in Normal Mode
"Zone 1-4"	Flashing: 1 blink/sec	Device in Program Mode
	Off	Normal Operation: zone off
	Continuous On	Normal Operation: zone on
	1 blink, pause	Output shorted: verify wiring and do one of the following to turn on affected zone: - Press affected "Zone" button then press  to raise on the unit - Press a scene button on a connected QS device - Press Reset button next to CCI terminal - Power cycle unit
	2 blink, pause	Overvoltage: contact Lutron
	3 blink, pause	Shorted component: contact Lutron
	4 blink, pause	Overtemperature: zone may be overloaded, all loads scaled to 25%
	5 blink, pause	Overtemperature: zone may be overloaded, all loads turned off
	Rapid flash: 10 blinks/sec	Multiple errors: contact Lutron
	"CCI" (Contact Closure Input)	Continuous On
Rapid flash: 10 blinks/sec		Emergency mode/Contact open/Jumper missing
"Input"	Continuous On	Viewing wired input
	Flashing: 1 blink/sec	Viewing remote input on a QS Sensor Module (QSM)
"Input S1-S4"	Off	Sensor never detected or not currently receiving information
	Continuous On/Flashing	Sensor is detected and is currently receiving information
"Def, Opt 1-3" (Default, Option 1-3)	Off	Device in normal mode
	Flashing/On	Selected option for programming mode

### 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
Not allowed to assign 16th occupancy sensor to a zone	Existing occupancy sensor still assigned to the zone	Unassign the existing occupancy sensor and try again
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 ESN, the "Input" LED on the ESN flutters for 1 second, then turns off	A QSM has already been associated to the ESN	To clear the QSM association and any ESN zone assignments to any QSM inputs, press and hold the "Input" button on the ESN 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 ESN programming that the wireless device may have had through the previous QSM

## BUTTON AND LED LOCATIONS



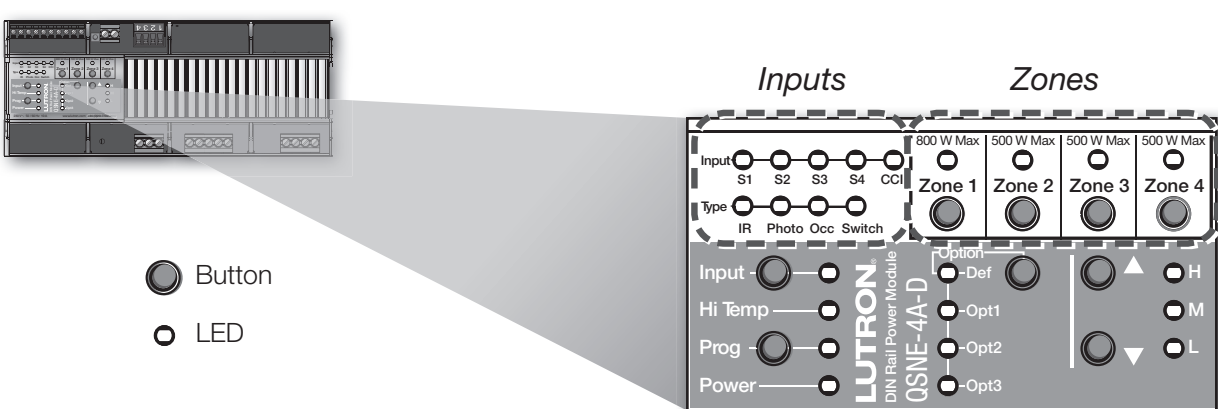


## LEDs and BUTTON PRESSES

**LED states:**  
 ● Off    ○ On    ☀ Blink/Flash

See visual instructions on left.  
 See written instructions at right.

### Button and LED Locations



● Button  
 ○ LED

## Figure A Load Setup

- 1. Enter Zone Setup**  
Press and hold 3 seconds
- 2. Select Zone (if applicable)**  
Press
- 3. Select Option**  
Press
- 4. Exit Zone Setup**  
Press and hold 3 seconds

## Figure B Energi Savr Node™ (ESN) Wired Input Setup and Zone Assignment

- 1. Enter Program Mode**  
Press and hold 3 seconds
  - 2. Enter Change Sensor Type Mode**  
Press and hold 3 seconds
  - 3. Select Input**  
Press
  - 4. Select Sensor Type**  
Press
  - 5. Assign Sensor Type**  
Press and hold 3 seconds
  - 6. Exit Change Sensor Type Mode**  
Press and hold 3 seconds
  - 7. Select Input**  
Press
  - 8. Setup Options**  
Assign Zones  
 a. Press and hold 3 seconds  
 b. Press and hold 3 seconds  
 c. Press  
 d. Press and hold 3 seconds  
 e. Press and hold 3 seconds
  - 9. Exit Program Mode**  
Press and hold 3 seconds
- \*Not applicable for step e

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

- Associating Wireless Input Devices to a QSM**
- 1. Enter QSM Wireless Input Setup**  
Press and hold 3 seconds
  - 2. Associate Devices**  
 "Occ" (Occupancy Sensor): Press and hold 6 seconds  
 "Photo" (Daylight Sensor): Press and hold 6 seconds  
 Pico: Press and hold 6 seconds  
 QSM: Press and hold 3 seconds
  - 3. Exit Setup**  
Press and hold 3 seconds
- QSM Association to an ESN**
- 1. Enter QSM/ESN Association**  
Press and hold 3 seconds
  - 2. Associate QSM**  
Press and hold 3 seconds
  - 3. Exit QSM/ESN Association**  
Press and hold 3 seconds

## PROGRAMMING

### A Load Setup

- 1. Enter Zone Setup Mode.** Simultaneously press and hold the "Prog" (Program) and "Input" buttons for 3 seconds. The "Prog," "Def" (Default), "IR" (Infrared), and "Photo" (Daylight) LEDs will blink once per second.
- 2. Select Zone.** Press a "Zone" button to select a zone. When a zone is selected, the zone's LED will blink once per second.
- 3. Select Option.** Press the "Option" button to select an option. Use the ▲ and ▼ buttons for each zone to select the choice for each option. When setting the Daylight Gain, high/low end trim, or the minimum light level option, the "H-M-L" LEDs will flutter when the limit has been reached.

LED	Option	Setting Choices	Function
Def	Occupancy / Vacancy	H M	Occupancy (default) Vacancy
Opt 1	Daylight Gain	H-M-L	Press ▲ for more light Press ▼ for less light
Opt 2 <sup>1</sup>	Load Type <sup>2</sup>	H-M-L H M L	Unassigned/Non-dim (default) <sup>3</sup> Auto (dim) (phase detection) MLV (dim) (leading edge/forward phase) ELV (dim) (trailing edge/reverse phase)
Opt 3	High-End Trim	H-M	100% maximum (default) down to 55% minimum
Def + Opt 1	Low-End Trim	L-M	1% minimum (default) up to 45% maximum
Def + Opt 2	Absolute Minimum Light Level <sup>4</sup>	H-M-L	100% maximum down to 0% minimum (default)
Def + Opt 3	RTISS-TE	H L	Enable Disable (default)

Repeat steps 2 and 3 for each desired zone.

- 4. Exit Zone Setup Mode.** Simultaneously press and hold the "Prog" and "Input" buttons for 3 seconds to exit.

<sup>1</sup> Note: Selecting the wrong dimming type may result in poor dimming performance and may damage the load and/or the Energi Savr Node™ unit. Consult fixture manufacturer if unsure of proper dimming type.

<sup>2</sup> To determine the load type during normal operation, press the "Option" button. The "Zone" LEDs will blink:  
 Solid On = trailing edge/reverse phase  
 1 blink/sec = leading edge/forward phase

<sup>3</sup> Each zone is unassigned by default and will switch load on or off until it is configured. Once configured, the load type cannot be changed back to Unassigned/Non-Dim.

<sup>4</sup> This setting is required in certain cities. Check local electrical codes to verify requirements.

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

- 1. Enter Program Mode.** Press and hold the "Prog" (Program) button for 3 seconds. The "Prog" LED will blink once per second. The "Type" LED(s) will be steady ON showing the input type. One of the Sensor "Input" LEDs will be blinking to show the selected input. If all "Type" LEDs are steady ON, the selected input has not been assigned a sensor type.
- 2. Enter Change Sensor Type mode.** Press and hold the "Input" and "Option" button for 3 seconds. The "Prog" and "Input" LEDs will blink once per second. The Sensor "Input" LED will blink once per second to display the selected input, and the Sensor "Type" LED will be steady ON to display the inputs current type.
- 3. Select Input.** Press the "Prog" button to select an input. When an input is selected, the input's LED will blink once per second. Also, LEDs of sensors wired to the ESN will flash to help with identification.
- 4. Select Sensor Type.** Press the "Input" button to select a sensor type. When a sensor type is selected, the sensor's "Type" LED will blink once per second.
- 5. Assign Sensor Type.** Press and hold the "Input" button for 3 seconds to assign the sensor type. Repeat steps 3 - 5 to assign a sensor type for each desired sensor input.
- 6. Exit change Sensor Type mode.** Press and hold the "Input" and "Option" button for 3 seconds to exit and return to Program Mode.
- 7. Select input.** Press the "Prog" button to select an input. Corresponding LED will blink. Also, LEDs of sensors wired to the ESN will flash to help with identification.
- 8. Setup options.** Follow the appropriate section for each sensor type.

Continued next column...

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

- a. Occupancy Sensor ("Occ"):** Assign zone(s). Press and hold the "Zone" button of any zone for 3 seconds to assign the zone to the selected input. A flashing "Zone" LED indicates an assigned zone. To unassign a zone, press and hold the "Zone" button of the desired zone for 3 seconds. The "Zone" LED will turn off to indicate an unassigned zone. Repeat steps 7 and 8 for each desired input.
- b. Daylight Sensor ("Photo"):** Assign zone(s). Press and hold the "Zone" button of any zone for 3 seconds 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. To unassign a zone, press and hold the "Zone" button of the desired zone for 3 seconds. The "Zone" LED will turn off to indicate an unassigned zone. Repeat steps 7 and 8 for each desired input.

- c. Infrared ("IR") Sensor or Wired 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	Function
Opt 1	Scene Mode	Allows IR remote to select scenes (see Scene Setup for more information)
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).** Select zone by pressing the "Zone" button for the zone you wish to set up, then use the ▲ and ▼ buttons to adjust the zone's preset light level.

**Assign zone(s).** Press and hold the "Zone" button of the zone for 3 seconds to assign the zone to the selected input. A flashing "Zone" LED indicates an assigned zone.

To unassign a zone, press and hold the "Zone" button of the desired zone for 3 seconds. The "Zone" LED will turn off to indicate an unassigned zone.

Repeat steps 7 and 8 for each desired input.

- d. Dry Contact (Switch):** 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—IEC PELV/NEC, Class 2 dry contact switch**

LED	Switch Action	Feature	Function
Def	Maintained	Zone Toggle Preset / Off (default)	Contact closure or opening will toggle the state of assigned zones between a preset and off.*
Opt 1	Momentary	Zone Toggle Preset / Off	Contact closure will toggle the state of assigned zones between a preset and off.*
Opt 2	Maintained (dual action)	Zones Preset / Off	Contact closure will set assigned zones to preset level. Contact open will set assigned zones off.
Opt 3	Momentary (single action)	Zones On	Contact closure will set assigned zones to preset level. Contact open will set assigned zones off.

\* If one or more assigned zones are on at the time of contact closure or opening, 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.

**Set zone level.** Select zone by pressing the "Zone" button for the zone you wish to set up, then use the ▲ and ▼ buttons to adjust the zone's preset light level.

**Assign zone(s).** Press and hold the "Zone" button of the zone for 3 seconds to save the zone level and assign the zone to the selected input. A flashing "Zone" LED indicates an assigned zone.

To unassign a zone, press and hold the "Zone" button of the desired zone for 3 seconds. The "Zone" LED will turn off to indicate an unassigned zone.

Repeat steps 7 and 8 for each desired input.

- e. Emergency Input ("CCI"):** The default emergency levels are 100% for all zones. Zones cannot be unassigned from emergency CCI input.

**Set zone level.** Select zone by pressing the "Zone" button for the zone you wish to set up, then use the ▲ and ▼ buttons to adjust the zone's emergency light level.

Repeat steps 7 and 8 for each desired input.

## 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 "Prog" (Program) button 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.

- 1. Enter Input Setup.** Press and hold the "Prog" button on the QSM for 3 seconds. You will hear a 1-second beep upon entering, and the Status LED will blink.
- 2. 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	☑ / Lights Off	6 seconds	LED flashes briefly	10
Radio Powr Savr™ Daylight Sensor	Link	6 seconds	LED flashes briefly	10
Pico™ Wireless Controller	Off Button	6 seconds	None	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.

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

### QSM Association to an ESN

- 1.** Press and hold the "Prog" button on the QSM for 3 seconds. You will hear a 1-second beep upon entering, and the Status LED will blink. The "Input" (Input) LEDs on ESN(s) on the QS link will sequence through each sensor type, and the "Opt 3" (Option 3) LED will be steady ON.
- 2. Associate QSM.** On the ESN to which the QSM will be associated, press and hold the "Input" button for 3 seconds until the "Input" LED on the ESN unit begins to flash.
- 3. Exit QSM Association.** Press and hold the "Prog" 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)**

- 1. Enter Program Mode**  
Press and hold 3 seconds
- 2. Select QSM**  
Press
- 3. Select Wired Input. Selected Input Blinks**  
Press

Select Wireless: Select Occupancy Sensor  
Select Wireless: Select Daylight Sensor

Selected Input Blinks

- 4. Assign Zones**  
Press and hold 3 seconds
- 5. Exit Program Mode**  
Press and hold 3 seconds

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

- 1. Enter Pico® Wireless Controller Assignment**  
Press and hold 3 seconds
- 2. Select Option**  
Press
- 3. Assign Zone**  
Press and hold 3 seconds
- 4. Exit Pico® Wireless Controller Assignment**  
Press and hold 3 seconds

**Figure E Wired seeTouch® QS Wallstation Setup**

- 1. Enter Wallstation Setup**  
Press and hold 3 seconds
- 2. Select Option**  
Press
- 3. Assign Zone**  
Press and hold 3 seconds
- 4. Exit Wallstation Setup**  
Press and hold 3 seconds

**Select Zone**  
Press

**Set Zone Level (Zone Mode Only)**  
Press

**Save Option**  
Press and hold 3 seconds

**Select Button (Zone Toggle Only)**  
Press

Note: Gray buttons signify buttons to be pressed.

**Figure F GRAFIK Eye® QS Control Unit / GRAFIK Eye® QS Timeclock Setup**

- 1. Enter GRAFIK Eye® QS Setup**  
Press and hold 3 seconds
- 2. Assign Zones**  
Press and hold 3 seconds
- 3. Exit GRAFIK Eye® QS Setup**  
Press and hold 3 seconds

**Figure G QSE-IO Input/Output Interface Setup**

**Scene Selection Control or Sequencing Control**

- 1. Enter Scene Selection Setup**  
Press and hold 3 seconds
- 2. Assign Zones**  
Press and hold 3 seconds
- 3. Exit Scene Selection Setup**  
Press and hold 3 seconds

**Zone Toggle Control**

- 1. Enter Zone Toggle Setup**  
Press and hold 3 seconds
- 2. Select Input**  
Press
- 3. Assign Zones**  
Press and hold 3 seconds
- 4. Assign Zones**  
Press and hold 3 seconds
- 5. Exit Zone Toggle Setup**  
Press and hold 3 seconds

**Partition Control**

- 1. Enter Partition/Sequencing Control Setup**  
Press and hold 3 seconds
- 2. Select Input**  
Press
- 3. Assign Zones**  
Press and hold 3 seconds
- 4. Exit Partition/Sequencing Control Setup**  
Press and hold 3 seconds

**Set Zone Level**  
Press

**D QS Sensor Module (QSM) Zone Assignment**

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

Note: QSM must be assigned to ESN before assigning zones. See Section C.

- 1. Enter Program Mode.** Press and hold the "Prog" (Program) button for 3 seconds. The "Prog" LED will blink once per second. The "Type" LED(s) will be steady ON showing the input type.
- 2. Select QSM.** Press the "Input" button on the ESN to select QSM. The "Input" will blink once per second and the "Def" (Default) LED will be steady ON.
- 3. Select wired input:** Each input from an associated QSM will be indicated by a steady ON "Type" LED as listed below:

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

Press the "Prog" button to sequence through each associated input. The LED corresponding to the selected input will blink (other associated input LEDs will remain steady ON).

**Select wireless input:**

Wireless Occupancy sensor: Press and hold the "Lights Off" or ☐ button for 6 seconds, until the sensor's dome begins to flash. The ESN 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 ESN will automatically select that input.

- 4. Assign zones.** Press and hold the "Zone" button of any zone for 3 seconds to assign the zone to the selected input. A flashing "Zone" LED indicates an assigned zone.
- 5. Exit Program Mode.** Press and hold the "Prog" button for 3 seconds to exit.

**Assigning Zones to Pico® Wireless Controllers (via QSM)**

- 1. 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" LED on the ESN(s) will flash once per second and the sensor "Type" LEDs will scroll through each input type. All unassigned zones will turn off.
- 2. Setup options.** Press the "Option" button to select the desired option. The LED for the selected option will flash.

LED	Option	LED	Option
Def	Scene + Off mode	Opt 2	Zone Mode (Only available with QSM 5.X or below)
Opt 1	Scene mode	Opt 3	Single action 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 ▲ and ▼ 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 2. Refer to J Scene Setup to adjust zone levels for each scene.

- 3. Assign zones.** Press and hold the "Zone" button of the desired zone for 3 seconds. 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.**
- 4. 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 Setup**

- 1. Enter Wallstation Setup.** Simultaneously press and hold the top and bottom buttons (excluding raise/lower) on the wallstation for 3 seconds. The Sensor "Type" LEDs on the ESN(s) will scroll sequentially through each input type. Note: On wallstations with dual columns, each column is set up separately.
- 2. Select option.** Press the "Option" button on the ESN to select the scene wallstation type. LED for currently saved type will remain steady ON.

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**E Wired seeTouch® QS Wallstation Setup - continued**

LED	Option	LED	Option
Def	Scene + off	Opt 2	Zone Toggle
Opt 1	Scene	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 an existing 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 ON.

**Assign zones to buttons (Zone Toggle only):** To assign a specific ESN zone to a wallstation button, press the wallstation button you wish to assign. The button LED will blink slowly.

**Set zone levels (Zone Toggle only):** First press the "Zone" button for the zone you wish to set up, then use the ▲ and ▼ buttons to adjust zone preset light levels.

**3. Assign zones.** Press and hold the "Zone" button of the desired zone for 3 seconds to assign the zone to the wallstation. A blinking "Zone" LED indicates an assigned zone.

To un-assign ESN zones from a specific wallstation, press and hold the "Zone" button of the desired zone for 3 seconds. The "Zone" LED will turn off to indicate the zone is unassigned.

**4. Exit Wallstation Setup.** Simultaneously press and hold the top and bottom buttons on the wallstation for 3 seconds to exit.

**F GRAFIK Eye® QS Control Unit / GRAFIK Eye® QS Timeclock Setup**

Refer to the Installation Instructions provided with the GRAFIK Eye® QS control unit or GRAFIK Eye® QS timeclock to set up time events. (Refer to Application Note 048447 for GRAFIK Eye® QS Remote Zone Mapping.)

- 1. Enter GRAFIK Eye® QS Setup.** Simultaneously press and hold the top and bottom scene buttons on the GRAFIK Eye® QS unit for 3 seconds. The sensor "Type" LEDs on the ESN will scroll sequentially through each input type.
- 2. Assign zones.** Press and hold the desired "Zone" button on the ESN for 3 seconds to assign the zone. A flashing "Zone" LED indicates an assigned zone.
- 3. Exit GRAFIK Eye® QS Setup.** Simultaneously press and hold the top and bottom buttons on the GRAFIK Eye® QS unit for 3 seconds to exit.

**G QSE-IO Input/Output Interface Setup**

Refer to the Installation Instructions provided with the QSE-IO for proper DIP switch settings. The ESN can be associated to a QSE-IO that is configured as a scene selection control, sequencing control, zone toggle control, or a partition control. Refer to instructions below.

**Scene Selection Control**

A QSE-IO configured as a Scene Selection Control can be used to change scenes on your ESN using contact closure inputs on the QSE-IO, or to monitor scene changes on your ESN using contact closure outputs on the QSE-IO.

To associate a QSE-IO that is set in a Scene configuration to an ESN(s):

- 1. Press and hold the "Prog" (Program) button on the QSE-IO for 3 seconds.** The 5 output LEDs on the QSE-IO will cycle. The sensor "Type" LEDs on the ESN(s) will scroll sequentially through each input type.
- 2. Assign zones.** Press and hold the desired "Zone" button on the ESN for 3 seconds to assign the zone to the QSE-IO. A flashing "Zone" LED indicates an assigned zone.
- 3. Exit Scene Selection Setup.** Press and hold the "Prog" button on the QSE-IO for 3 seconds.

**Sequencing Control**

A QSE-IO configured as a Sequencing Control 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 ESN(s):

- 1. Enter Sequencing Control Setup.** Press and hold the "Prog" button on the QSE-IO for 3 seconds. The 5 output LEDs on the QSE-IO will cycle. The sensor "Type" LEDs on the ESN(s) will scroll sequentially through each input type.
- 2. Assign zones.** Press and hold the desired "Zone" button on the ESN unit for 3 seconds to assign the zone to "Input 1" on the QSE-IO. A flashing "Zone" LED indicates an assigned zone.
- 3. Exit Sequencing Control Setup.** Press and hold the "Prog" button on the QSE-IO for 3 seconds to exit.

**Zone Toggle Control**

A QSE-IO configured as a Zone Toggle Control can be used to toggle zones on your ESN using contact closure inputs into the QSE-IO, or to monitor the state (on or off) of the zones on your ESN using contact closure outputs out of the QSE-IO.

To associate a QSE-IO that is set in a Zone Toggle configuration to an ESN(s):

- 1. Enter Zone Toggle Setup.** Press and hold the "Prog" button on the QSE-IO for 3 seconds. The first output LED will flash indicating "Input 1" is selected. The sensor "Type" LEDs on the ESN(s) will scroll sequentially through each input type.
- 2. Select input.** Press the "Prog" button on the QSE-IO to select an input. Corresponding LED will blink.
- 3. Set light levels.** First press the "Zone" button for the zone you wish to setup, then use the ▲ and ▼ buttons on the ESN to set the desired light level for the desired zone.
- 4. Assign zones.** Press and hold the desired "Zone" button on the ESN for 3 seconds to assign the zone to "Input 1" on the QSE-IO. A flashing "Zone" LED indicates an assigned zone.

To un-assign zones from the QSE-IO, press and hold the desired "Zone" button on the ESN for 3 seconds. The "Zone" LED will turn off to indicate the zone is unassigned.

Repeat steps 2-4 for each desired zone and QSE-IO input.

- 5. Exit Zone Toggle Setup.** Press and hold the "Prog" button on the QSE-IO for 3 seconds to exit.

**Partition Control**

A QSE-IO configured as a Partition Control can be used to select scenes on your ESN using contact closure inputs into the QSE-IO, based on the status of movable walls.

To associate a QSE-IO that is set in a Partition Control configuration to an ESN(s):

- 1. Enter Partition Control Setup.** Press and hold the "Prog" button on the QSE-IO for 3 seconds. The first output LED will flash indicating "Input 1" is selected. The sensor "Type" LEDs on the ESN(s) will scroll sequentially through each input type.
- 2. Select input.** Press the "Prog" button on the QSE-IO to select an input. Corresponding LED will blink.
- 3. Assign zones.** Press and hold the desired "Zone" button on the ESN for 3 seconds to assign the zone to "Input 1" on the QSE-IO. A flashing "Zone" LED indicates an assigned zone.

To un-assign zones from the QSE-IO, press and hold the desired "Zone" button on the ESN for 3 seconds. The "Zone" LED will turn off to indicate the zone is unassigned.

Repeat steps 2 and 3 for each desired zone and QSE-IO input.

- 4. Exit Partition Control Setup.** Press and hold the "Prog" button on the QSE-IO for 3 seconds to exit.



**Figure H Occupancy Setup**

- Enter Zone Setup**
- Select Option**
- Select Zone**
- Select Response Mode**
- Exit Zone Setup**

**Select Scene for Occupied State**

- Enter Scene Setup**
- Select Scene (Scenes 1-4)**
- View Scenes 5-16**
- Select Scene (Scenes 5-16)**
- Set Occupied Scene**
- Exit Scene Setup**

**Figure I Daylighting Setup**

- Enter Zone Setup**
- Select Option**
- Select Zone**
- Set Zone Levels**
- Exit Zone Setup**

**Figure J Scene Setup**

- Enter Scene Setup**
- Select Scene (Scenes 1-4)**
- View Scenes 5-16**
- Select Scene (Scenes 5-16)**
- Select Zone**
- Set Light Levels**
- Exit Scene Setup**

**H Occupancy Setup**

**Set Zone Response to Occupancy Sensors**

- Enter Zone Setup Mode:** Simultaneously press and hold the "Prog" (Program) and "Input" buttons for 3 seconds. The "Prog," "Def" (Default), "IR" (Infrared), and "Photo" (Daylight) LEDs will blink once per second.
- Select "Def" (Default):** Use the "Option" button to select "Def."
- Select Zone:** Press the "Zone" button to select the zone you want to change.
- Select response.** Use the ▲ and ▼ buttons to select the response type for each desired zone:

Flashing LED	Zone Response Type
H	Occupancy mode (auto on/off)
M	Vacancy mode (manual on/auto off)

Repeat steps 3 and 4 for each desired zone.

- Exit Zone Setup Mode.** Simultaneously press and hold the "Prog" 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 Scene Setup Mode.** Simultaneously press and hold the "Prog" and "Option" buttons for 3 seconds. The "Input" and "Def" LEDs will be steady ON and the "Prog," "Occ" (Occupancy Sensor), and "Switch" LEDs will blink once per second.
- Select Scene.** Press the "Option" button to select a scene:

**Scenes 1-4**  
LED Legend: ○ = steady ON ● = off

Scene #	LED Pattern	Default Level
1	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
2	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	75%
3	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	50%
4	Def ●, Opt1 ●, Opt2 ●, 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
5	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
6	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
7	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
8	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
9	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
10	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
11	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
12	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
13	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
14	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
15	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
16	Def ●, Opt1 ●, Opt2 ●, 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 "Input" LED will turn on to indicate the selection is complete.
- Exit Scene Setup Mode.** Simultaneously press and hold the "Prog" 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).

**Set Daylight Sensor Setpoint**

- Enter Zone Setup Mode.** Simultaneously press and hold the "Prog" (Program) and "Input" buttons for 3 seconds. The "Prog," "Def" (Default), "IR" (Infrared), and "Photo" (Daylight) LEDs will blink once per second.
- Select option.** Use the "Option" button to select "Opt1" (Option 1)
- Select Zone.** Use the "Zone" button to select the zone to change.
- Set light levels.** Press the ▲ and ▼ buttons (cannot press and hold) 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.  
Repeat steps 3 and 4 for each zone.
- Exit Zone Setup Mode.** Simultaneously press and hold the "Prog" and "Input" buttons for 3 seconds to exit.

**J Scene Setup**

- Enter Scene Setup Mode.** Simultaneously press and hold the "Prog" (Program) and "Option" buttons for 3 seconds. The "Def" (Default) LED will be steady ON and the "Prog," "Occ" (Occupancy Sensor), and "Switch" LEDs will blink once per second.
- Select Scene.** Press the "Option" button to select a scene:

**Scenes 1-4**  
LED Legend: ○ = steady ON ● = off

Scene #	LED Pattern	Default Level
1	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
2	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	75%
3	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	50%
4	Def ●, Opt1 ●, Opt2 ●, 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
5	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	9	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	13	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
6	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	10	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	14	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
7	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	11	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	15	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%
8	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	12	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%	16	Def ●, Opt1 ●, Opt2 ●, Opt3 ●	100%

- Select Zone:** Press the "Zone" button to select the desired zone to change.
- Set light levels.** Use the ▲ and ▼ buttons to adjust the light level for the zone.  
To make a zone unaffected, press and hold the ▼ button until only the "M" LED is steady ON.  
To make a zone affected again, press the ▲ button until you see a combination of the "H," "M," and "L" LEDs steady on or flashing.  
Repeat steps 3 and 4 for each desired zone.
- Exit Scene Setup Mode.** Simultaneously press and hold the "Prog" 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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