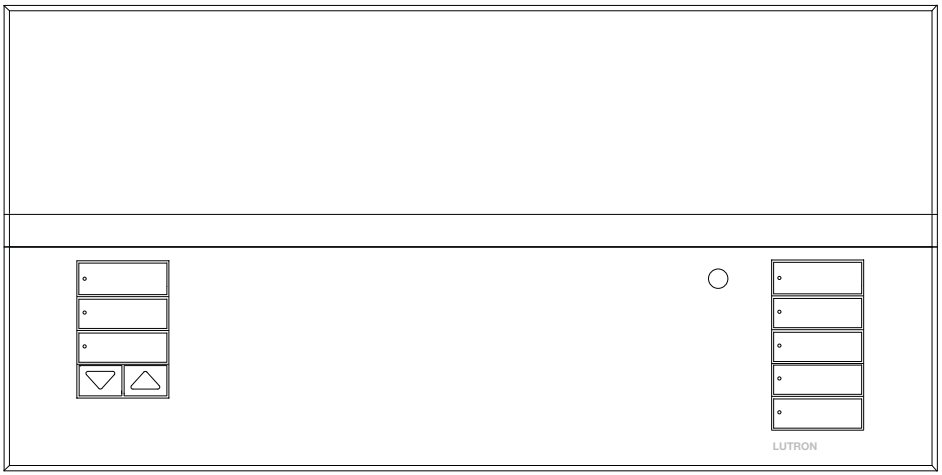
LUTRON®

GRAFIK Eye® QS with EcoSystem® Control Unit

Installation and Operation Guide

Please Read



The GRAFIK Eye® QS with EcoSystem® control unit allows for control of both lights and shades, without interfaces, using a single control unit. Features include pushbutton scene recall, info screen that displays energy savings and status, IR receiver, astronomic timeclock, contact closure input, and engravable backlit buttons that are easy to find and operate. The built-in EcoSystem® bus link can control up to 64 EcoSystem® devices.

Model Numbers: QSGRJ-6E, QSGRJ-8E, QSGRJ-16E
QSGR-6E, QSGR-8E, QSGR-16E

	120 V~ 50/60 Hz	**220 - 240 V~ 50/60 Hz**
Unit Capacity (watts)	2000 W	3000 W
MLV	2000 VA / 1600 W	3000 VA / 2400 W
Zone Capacity (watts)	25 – 800 W	40 – 1200 W
MLV	25 – 800 VA / 25 – 600 W	40 – 1200 VA / 40 – 960 W

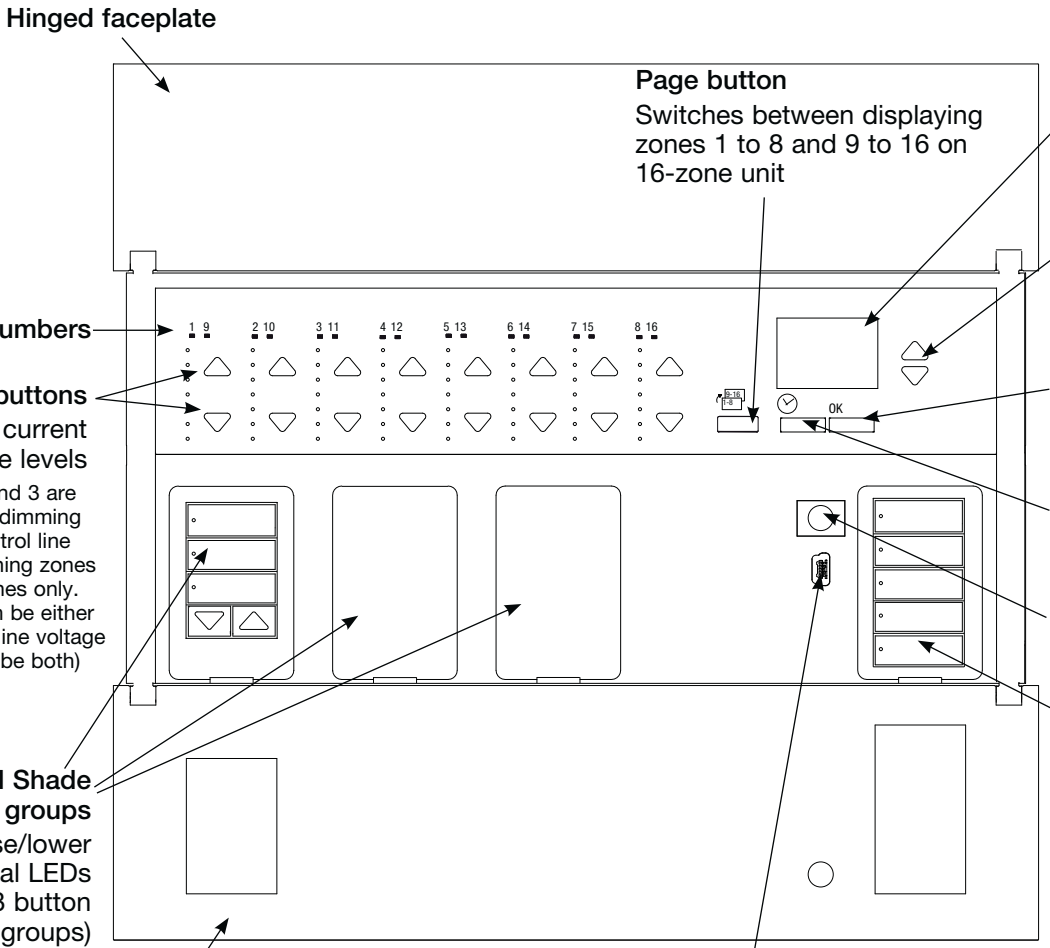
See page 7 for EcoSystem® bus ratings; see page 8 for IEC PELV/NEC® Class 2 ratings.

For California residents only:
The batteries in these devices contain Perchlorate Material – special handling may apply.
For more information visit
www.dtsc.ca.gov/hazardouswaste/perchlorate

English **Español** **Français**

Contents

Features and Functions of the GRAFIK Eye® QS with EcoSystem® Control Unit



Hinged faceplate

Page button
Switches between displaying zones 1 to 8 and 9 to 16 on 16-zone unit

Info screen
Displays status or programming functions

Master buttons
Temporarily raise and lower lighting levels on unit

Zone numbers

Zone raise/lower buttons
Zone LEDs display current lighting zone levels

Note: Zones 1, 2, and 3 are integral line voltage dimming zones that can control line voltage loads. Remaining zones are EcoSystem® zones only. Zones 1, 2, and 3 can be either EcoSystem® zones or line voltage zones (no zone can be both)

"OK" button
Used for programming

Timeclock button
Displays current timeclock info

Infrared receiver
For handheld remote use

Scene buttons
With integral scene indicator LEDs

Optional Shade button groups
Preset and raise/lower buttons with integral LEDs (maximum of 3 button groups)

Hinged faceplate

USB type mini B
For programming via PC

Note: 6-zone control unit will show only zones 1 through 6.

Wiring the GRAFIK Eye® QS with EcoSystem® Control Unit (continued)

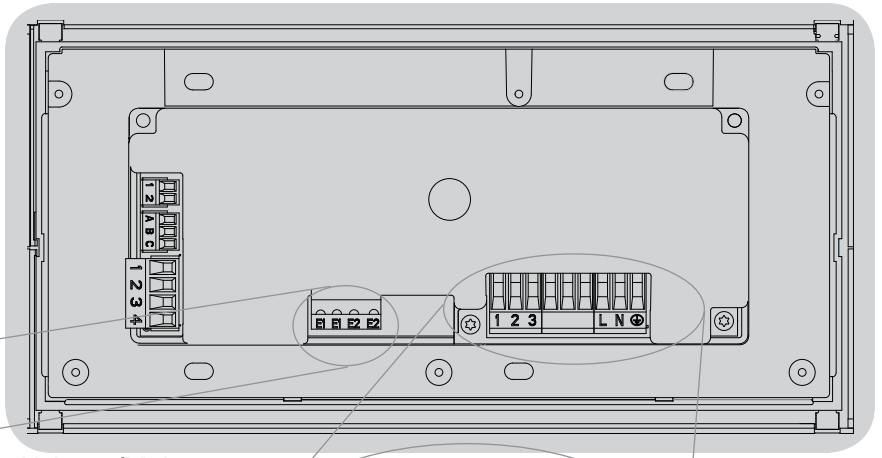
Overview of Line Voltage/Mains and EcoSystem® Wiring

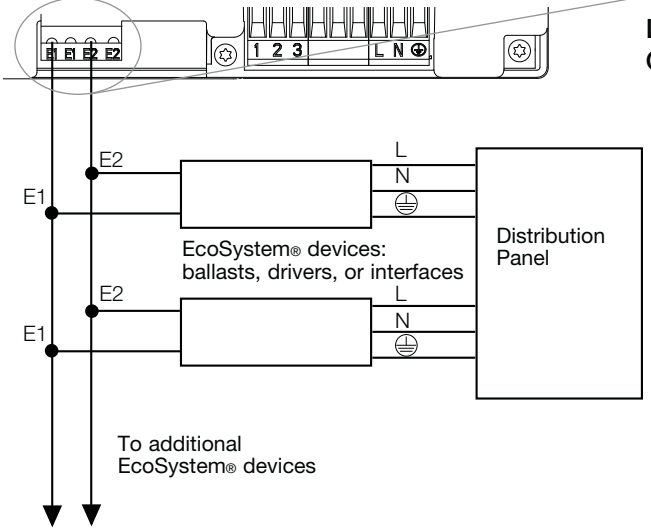
Two E1 and two E2 connections are provided for ease of wiring, and to provide two connecting points; there is only one EcoSystem® link on the unit.

Note: Ballasts and other EcoSystem® devices must **NOT** obtain power from a line voltage output on the GRAFIK Eye® QS with EcoSystem® control unit.

EcoSystem® Bus Wiring

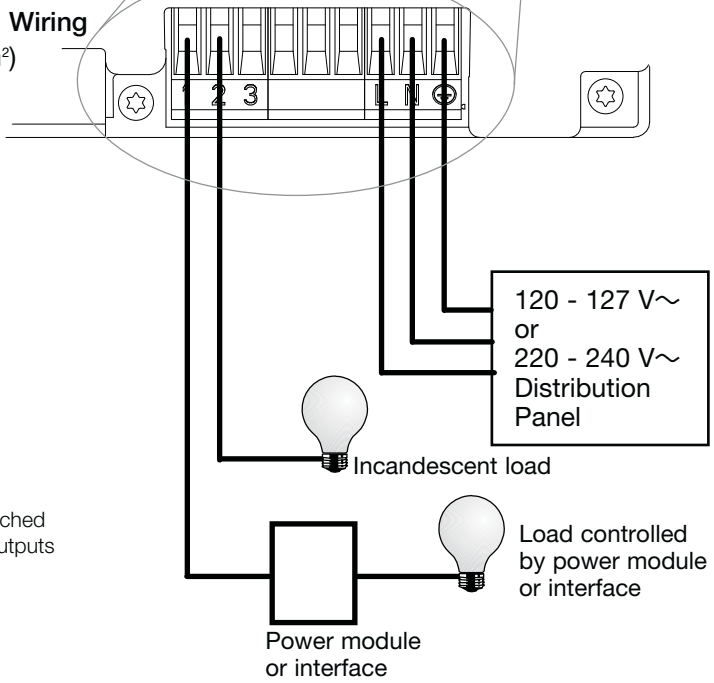
(See the bus wiring details section for complete specification)
Two 16 AWG (1.5 mm²) each terminal





Line Voltage/Mains Cables and Load Wiring

12 AWG (4.0 mm²) each terminal



Terminal labels:
L: Hot/Live
N: Neutral
⏚: Ground
1, 2, 3: Dimmed/Switched line voltage outputs

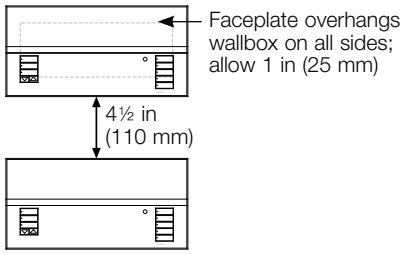
Wiring the GRAFIK Eye® QS with EcoSystem® Control Unit (continued)

Line Voltage Wiring Details

- Use properly certified cable for all line voltage/mains cables.
- Proper short-circuit and overload protection must be provided at the distribution panel. You can use up to a 20 A circuit breaker for your installation.
- Install in accordance with all local and national electrical codes.
- IEC PELV/NEC® Class 2 terminals may be temporarily unplugged for ease of IR, occupancy sensor, and control wiring.
- **Notice: Risk of damage to unit.** Do not connect line voltage/mains cable to IEC PELV/NEC® Class 2 terminals.

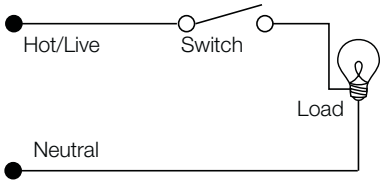
Step 1: Install wallbox. Mount a 3½ in (89 mm) deep 4-gang U.S. wallbox on a dry, flat indoor surface that is accessible and allows for system programming and operation. Allow at least 4½ in (110 mm) clearance above and below the faceplate to ensure proper heat dissipation. Allow 1 in (25 mm) for faceplate overhang on all sides.

Note: 4-gang wallbox available from Lutron; P/N 241400.



Step 2: Test load wiring.

- Turn power OFF at the circuit breaker or fuse box.
- Connect a standard light switch between the live lead and load wire to test the circuit.
- Turn power ON and check for short or open circuits. If load does not operate, the circuit is open. If the circuit breaker trips (fuse blows or opens), a load short may exist. Correct short or open circuits and test again.



Step 3: Check control unit wiring.

- Earth/ground terminal connection must be made as shown in line voltage wiring diagrams.
- Do not mix different load types on the same zone.
- Follow all local and national electrical codes when installing IEC PELV/NEC® Class 2 wiring with line voltage/mains wiring.

WARNING! Shock hazard. May result in serious injury or death. Always turn off circuit breaker or remove main fuse from power line before doing any work. Before connecting the loads to the GRAFIK Eye® QS with EcoSystem® control unit, test the loads for short-circuits.

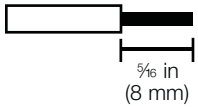
(continued on next page)

Wiring the GRAFIK Eye® QS with EcoSystem® Control Unit (continued)

Line Voltage Wiring Details (continued)

Step 4: Connect line voltage and loads to control unit.

- Strip 5⁄16 in (8 mm) of insulation off the line voltage/mains cables in the wallbox.



- Connect the line voltage/mains, ground, and load wires to the appropriate terminals on the back of the control unit.

  L: Hot/Live

  N: Neutral

  ⏚: Ground

  Terminals 1, 2, 3: Dimmed/Switched line voltage outputs

The recommended installation torque is 5.0 in·lb (0.6 N·m) for line voltage/mains connections and 5.0 in·lb (0.6 N·m) for the earth/ground connection.

Note: See the zone setup section for a list of compatible load types and instructions for programming the GRAFIK Eye® QS with EcoSystem® control unit to properly recognize them.

Notice: Risk of damage to unit. GRAFIK Eye® QS with EcoSystem® control units must be installed by a qualified electrician in accordance with all applicable regulations and building codes. Improper wiring can result in damage to control units or other equipment.

Note: To avoid overheating and possible damage to equipment, do not install control units to dim receptacles, motor-operated appliances, or fluorescent lighting not equipped with Lutron® Hi-lume®, Eco-10®, Tu-Wire®, EcoSystem® electronic dimming ballasts, or other EcoSystem® devices approved for your location. In dimmed magnetic low-voltage circuits, you can prevent transformer overheating and failure by avoiding excessively high current flow. Do not operate control units with any lamps removed or burned out; replace any burned out lamps immediately; use only transformers that incorporate thermal protection or fused primary windings. Control units are designed for residential and commercial use, for indoor use only.

Wiring the GRAFIK Eye® QS with EcoSystem® Control Unit (continued)

EcoSystem® Bus Wiring Details

EcoSystem® bus wiring may be considered NEC® Class 1 or IEC PELV/NEC® Class 2.

- NEC® Class 1: EcoSystem® bus wiring may be run in the same conduit as mains voltage wiring to fixtures.
- IEC PELV/NEC® Class 2: EcoSystem® bus wiring must be separated from all mains and NEC® Class 1 wiring.
- Consult applicable national and local codes for compliance.
- Lutron recommends using two different colors for E1 and E2 (EcoSystem® bus) wires. This will prevent wiring mistakes in junction boxes where several different EcoSystem® bus wires combine. Use the following instructions for wiring the EcoSystem® bus.
- Each EcoSystem® link can have only 1 GRAFIK Eye® QS with EcoSystem® control unit connected to it. No additional EcoSystem® bus supplies can be on the link.
- Up to 64 EcoSystem® devices can be connected to the EcoSystem® link.
- No other devices may be connected to the EcoSystem® link.

WARNING! Shock hazard. May result in serious injury or death. Do not wire live. Interrupt power via circuit breaker before wiring and servicing the EcoSystem® bus supply.

Step 1: Use the wire size chart at right to determine which wire size to use based on the length of the EcoSystem® bus.

Step 2: Wire the EcoSystem® bus from terminal E1 and terminal E2 to all EcoSystem® devices.

Step 3: If wiring the EcoSystem® bus as IEC PELV/NEC® Class 2, maintain proper separation from mains and NEC® Class 1 wiring.

Step 4: Turn on circuit breaker to energize.

EcoSystem® Bus	
18 V⎓	250 mA

Wiring Size and Bus Length

EcoSystem® bus wires E1 and E2 are not polarity sensitive. EcoSystem® bus length is limited by the wire gauge used for E1 and E2 as follows:

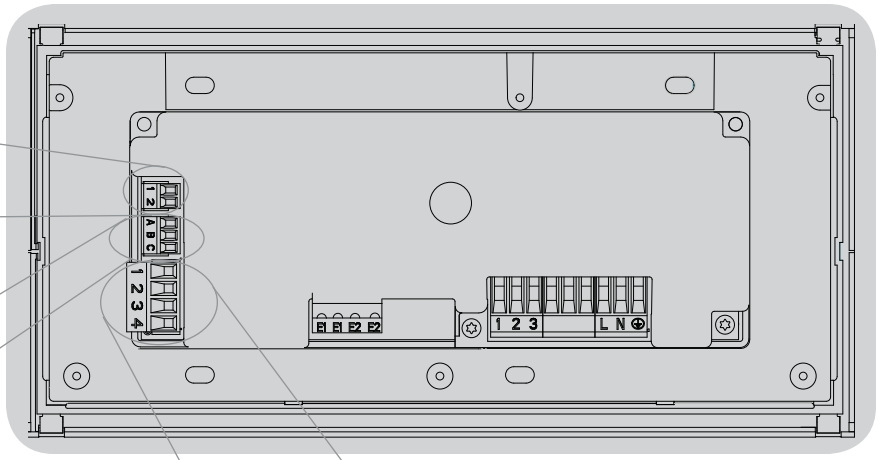
Wire Gauge	Maximum EcoSystem® Bus Length
12 AWG (4.0 mm^2)	2200 ft (671 m)
14 AWG (2.5 mm^2)	1400 ft (427 m)
16 AWG (1.5 mm^2)	900 ft (275 m)
18 AWG (1.0 mm^2)	570 ft (175 m)

Note: Some EcoSystem® devices (ballasts, drivers, and interfaces) accept connections to daylight sensors and occupancy sensors. For instructions on installing and operating these devices, refer to their individual instruction sheets.

EcoSystem® bus wiring cables (16 AWG/ 1.5 mm^2) are available from Lutron, part numbers C-CBL-216-GR-1 (non-plenum) and C-PCBL-216-CL-1 (plenum).

Wiring the GRAFIK Eye® QS with EcoSystem® Control Unit (continued)

Overview of IEC PELV/NEC® Class 2 Wiring



IR Wiring

18 AWG (1.0 mm²) each terminal

From external IR connection (by others)

1: IR DATA
2: IR COM

Contact Closure Input Wiring

24 V⎓ 50 mA

For settings, see CCI Mode Setup.

A: CCI SIG
B: 24 V⎓
C: CCI COM

Example:
Occupancy sensor (maximum 1)

18 AWG (1.0 mm²) each terminal

Signal
+V Input
Circuit Common

A: CCI SIG
B: 24 V⎓
C: CCI COM

LUT-ELI-3PH

Example:
Emergency lighting interface (maximum 1)

Note: The GRAFIK Eye® QS control unit must be powered by a Normal/Emergency distribution panel for proper ELI operation. Refer to the LUT-ELI-3PH Installation Guide for the complete wiring diagram.

QS Link Control Wiring

24 V⎓ 100 mA

Common and power (terminals 1 and 2):
Two 18 AWG (1.0 mm²) each terminal (for link <500 ft/153 m)
Two 12 AWG (4.0 mm²) each terminal (for link 500-2000 ft/153-610 m)

To control stations, shades, or other GRAFIK Eye® QS control units

1: COM
2: 24 V⎓*
3: MUX
4: $\overline{\text{MUX}}$

*Do not connect terminal 2 between any GRAFIK Eye® QS control unit and any other power supply, including another GRAFIK Eye® QS control unit. Refer to the QS Link Power Draw Units specification submittal (Lutron® P/N 369405) for more information concerning PDUs.

Data (terminals 3 and 4):
Twisted, shielded pair 22 AWG (0.5 mm²) each terminal

Note: Use appropriate wire connecting devices as specified by local codes.

Wiring the GRAFIK Eye® QS with EcoSystem® Control Unit (continued)

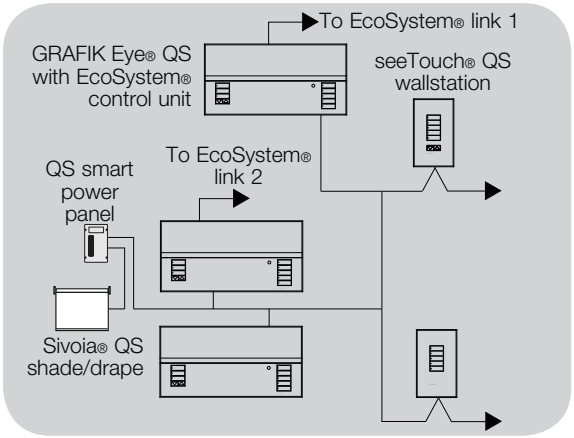
QS Link Control Wiring Details

- System communication uses IEC PELV/NEC® Class 2 wiring.
- Follow all local and national electrical codes when installing IEC PELV/NEC® Class 2 wiring with line voltage/mains wiring.
- Each terminal accepts up to two 18 AWG (1.0 mm²) wires.
- Total length of control link must not exceed 2000 ft (610 m).
- Make all connections in the control unit's wallbox.
- Wiring can be T-tapped or daisy-chained.
- IEC PELV/NEC® Class 2 24 V⎓ 150 mA.

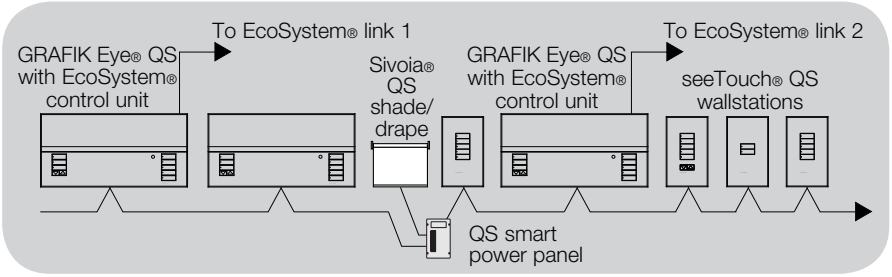
System Limits

The QS wired communication link is limited to 100 devices or 100 zones.
The GRAFIK Eye® QS control unit supplies 3 Power Draw Units (PDUs) on the QS link. Refer to the QS Link Power Draw Units specification submittal (Lutron® P/N 369405) for more information concerning Power Draw Units.

T-Tap Wiring Example



Daisy-Chain Wiring Example



Wire Sizes (check compatibility in your area)

QS Link Wiring Length	Wire Gauge	Lutron® Cable Part Number
Less than 500 ft (153 m)	Power (terminals 1 and 2); 1 pair 18 AWG (1.0 mm²)	GRX-CBL-346S (non-plenum) GRX-PCBL-346S (plenum)
	Data (terminals 3 and 4); 1 twisted, shielded pair 22 AWG (0.5 mm²)	
Up to 2000 ft (610 m)	Power (terminals 1 and 2); 1 pair 12 AWG (4.0 mm²)	GRX-CBL-46L (non-plenum) GRX-PCBL-46L (plenum)
	Data (terminals 3 and 4); 1 twisted, shielded pair 22 AWG (0.5 mm²)	

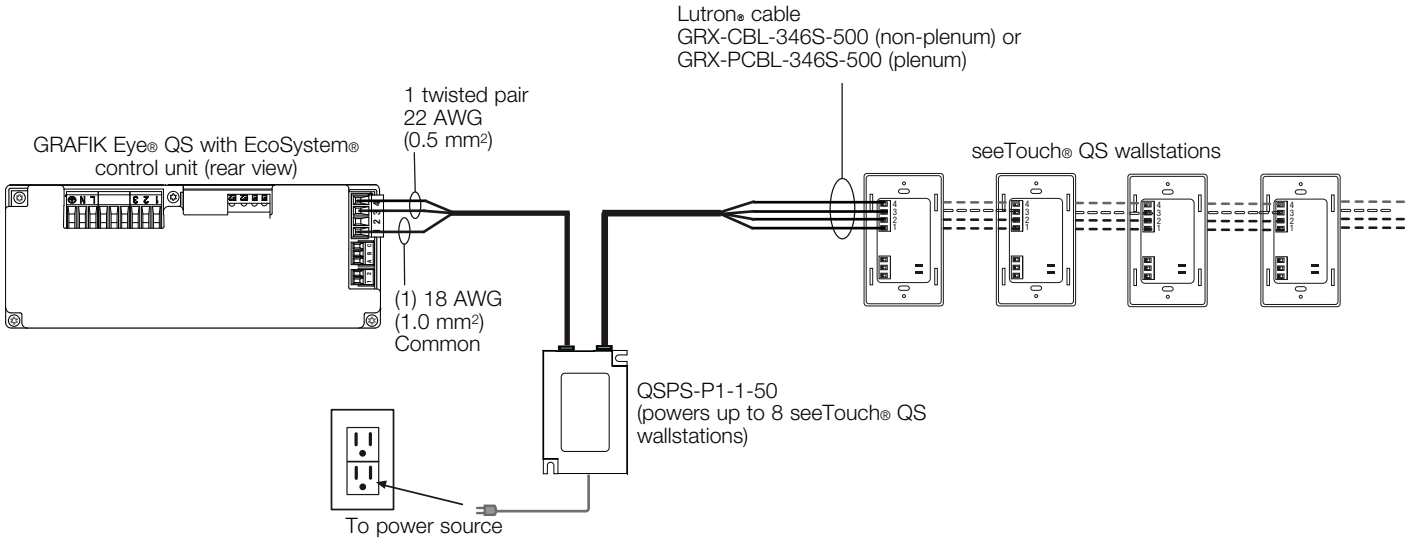
Notes:
- For more information regarding Lutron® cable specifications, please see Lutron® P/N 369596 and P/N 369597 at www.lutron.com
- For wire runs over 2000 ft (610 m), please contact Lutron® Technical Support

Wiring the GRAFIK Eye® QS with EcoSystem® Control Unit (continued)

Powering More Than 3 Wallstations Example

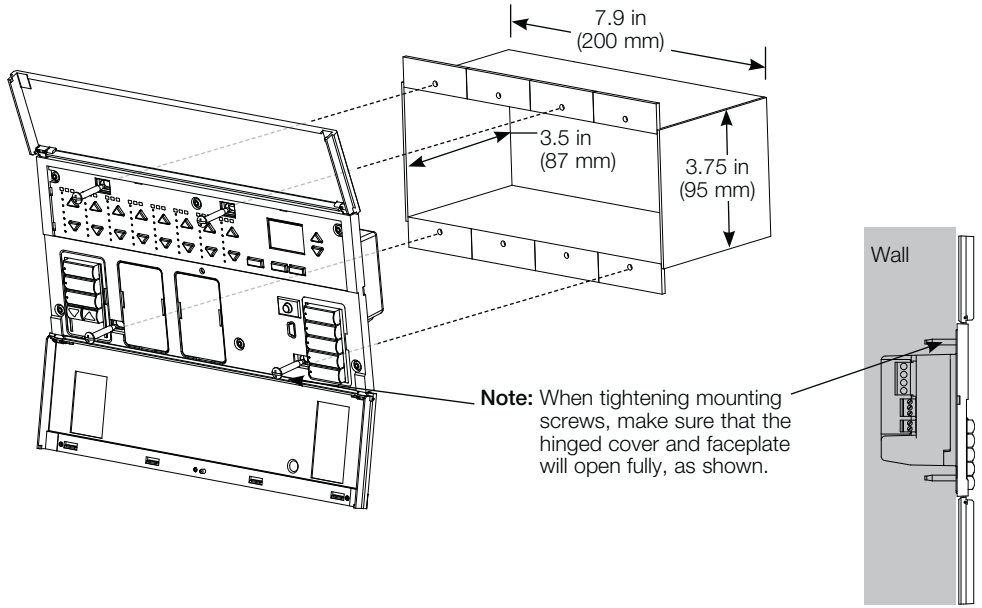
The GRAFIK Eye® QS with EcoSystem® control unit can power up to 3 seeTouch® wallstations. An external 24 V⎓ power supply is required to power more than 3 wallstations.

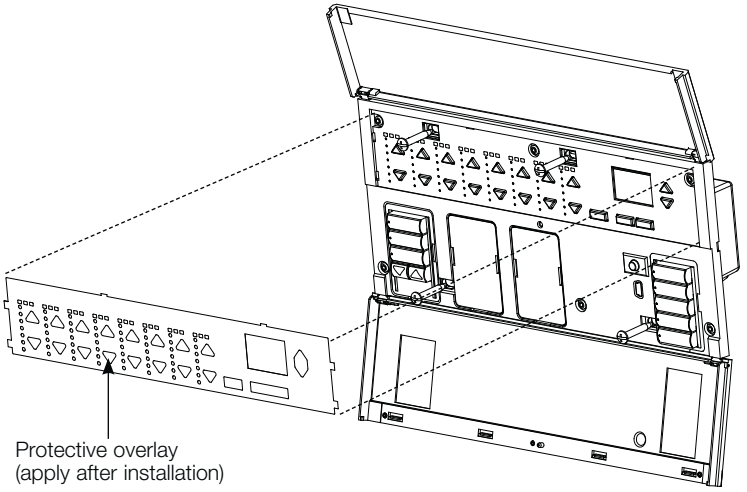
- The +24 VDC wire from the power supply connects to QS link terminal 2 on all of the wallstations it is powering. This wire does not connect to terminal 2 on the GRAFIK Eye® QS control unit.
- The Common wire from the power supply connects to QS link terminal 1 on all of the wallstations it is powering and terminal 1 on the GRAFIK Eye® QS control unit.
- The communication signals on the QS link (terminals 3 and 4) connect from the wallstations to the GRAFIK Eye® QS control unit on twisted, shielded cable just as when an additional power supply is not being used. Control unit shown in rear view.



Completing Installation of the GRAFIK Eye® QS with EcoSystem® Control Unit

1. Mount the control unit in the wallbox as shown using the four screws provided.
   Note: Follow all local and national electrical codes when installing IEC PELV/NEC® Class 2 wiring with line voltage/mains wiring.
2. Verify installation:
- Restore power.
- Press the top scene button. The LED will light.
- Press the zone raise and lower buttons. Make sure the control unit is dimming all connected loads.
3. Apply the protective overlay to the control unit.



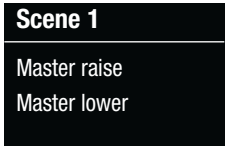


General Functionality

The info screen turns off 30 seconds after the last button press or completion of the last scene change. See example screens below.

The **Master** buttons activate the info screen. These buttons temporarily raise or lower all dimmable lights (except those programmed as unaffected in the current scene). Adjustments are temporary and do not affect scene programming.

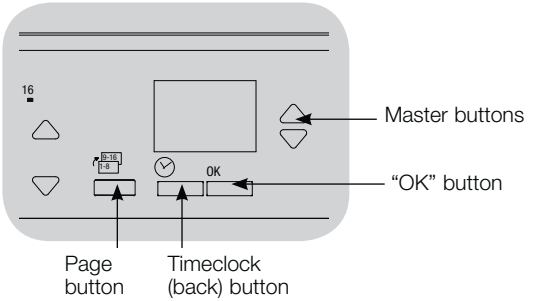
Note: Master buttons affect all zones.



The “OK” button activates the info screen (when off), which then shows the current scene and its fade time. In “Save Always” mode, it allows fade time adjustment. In “Save by OK” mode, pressing a second time allows zone adjustment; pressing a third time allows fade adjustment.

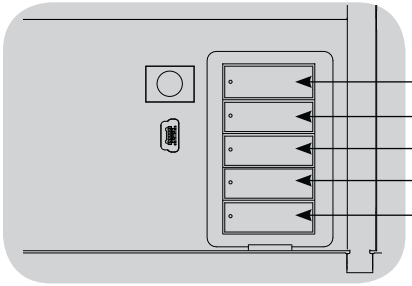
The **Timeclock** button activates the info screen and displays the current time and the next event scheduled to occur. Pressing a second time displays the time, date, and afterhours status. Pressing a third time displays location and sunrise/sunset times. Pressing a fourth time displays the language selection screen. Pressing once more returns to the first screen.

The **Page** button is on 16-zone units only. Pressing the Page button will toggle the unit between page 1 (zones 1 through 8) and page 2 (zones 9 through 16). Two LEDs above each zone LED bar indicate the unit’s current page. Upon switching pages, the LED bars for all 8 zones of that page will show their level for the current scene.



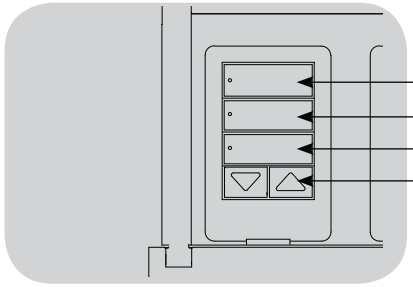
Pre-Programmed Button Functionality

The GRAFIK Eye® QS with EcoSystem® control unit controls most lighting loads without special programming. Each unit ships with pre-programmed default settings for the scene and shade buttons. For load types other than those shown below (dimmable or non-dim), assign the load type before proceeding. See the scene setup section for instructions on changing scene settings.



Scene Button Pre-Programming for Dimmable Loads

Scene 1: All zones to 100%
Scene 2: All zones to 75%
Scene 3: All zones to 50%
Scene 4: All zones to 25%
All zones Off



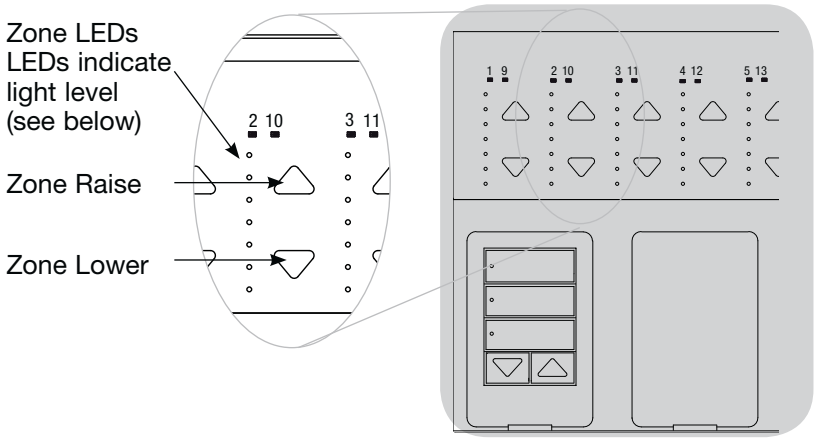
Shade Button Pre-Programming for Sivoia® QS shades

All shades fully open
All shades to 50%
All shades fully closed
Lower/Raise all shades
(Applies only to units with shade keypads)

Zone Button Operation

Each zone column (LEDs and buttons) represents one zone of lights. On 16-zone units, the page button toggles between zones 1 through 8 and zones 9 through 16. Page LEDs above each column will indicate which zone is currently active on the control unit. Pressing any button on a column turns on the info screen and displays the zone's current light level and current energy savings.

Pressing the raise and lower buttons on a zone causes different actions depending on zone type (see below).



Dimmable zones:

- Press and hold to raise/lower all lights in a zone; release to stop
- Press raise or lower to stop a zone that is fading
- Raising lights from off to full on or lowering from full on to off takes 5 seconds
- Press raise and lower simultaneously to toggle between full on and off
- Press and hold lower for 6 seconds after the zone has gone to 0% light level to set the zone as unaffected in the current scene. The zone will not change when this scene is initiated, and the Master buttons will not raise/lower the zone in this scene.

Non-dim zones:

- Press raise to turn zone on
- Press lower to turn zone off

Note: To set zone types, see the zone setup section.

Zone LED Displays for % of Lighting Levels

Light Level (%)	Off	1–17	18-33	34-49	50-66	67-82	83-99	On/ 100	UA
Dimmable Load Types	● ○ ○ ○ ○ ○ ○ ○	● ● ○ ○ ○ ○ ○ ○	● ● ● ○ ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ● ○ ○ ○	● ● ● ● ● ● ○ ○	● ● ● ● ● ● ● ○	● ● ● ● ● ● ● ●	● ● ● ○ ○ ○ ○ ○
Non-Dim Load Types	● ○ ○ ○ ○ ○ ○ ○							● ● ● ● ● ● ● ●	● ● ● ○ ○ ○ ○ ○

Legend:

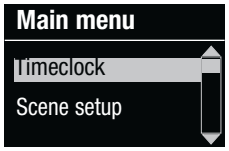
UA = Unaffected (lights are not affected by scene button or Master buttons)

● LED on

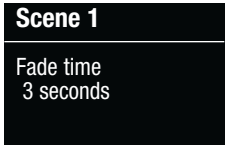
○ LED off

Programming Mode

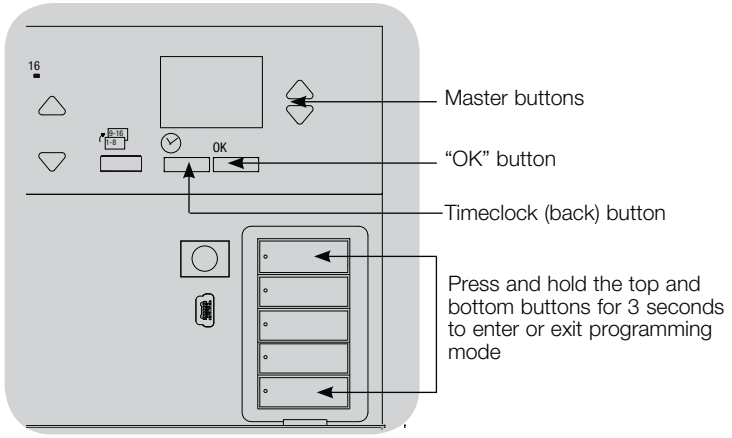
Entering and Exiting Programming Mode



Entering programming mode:
Press and hold the top and bottom scene buttons simultaneously for 3 seconds. The LEDs in the scene buttons will scroll from top to bottom, confirming that you are in programming mode, and the info screen will display the main menu.



Exiting programming mode:
Press and hold the top and bottom scene buttons simultaneously for 3 seconds. The info screen will go to Scene 1.



Navigating Menus in Programming Mode

Master Buttons
The Master buttons allow you to move through the menu choices. The current choice is highlighted on the info screen.

OK Button
The "OK" button chooses the current highlighted menu choice. This will either take you to the next menu or accept a setting you have selected. When the screen displays a Yes/No question, the "OK" button is "Yes".

Timeclock Button
The Timeclock button functions as a "back" button during programming mode. Pressing the Timeclock button takes you back one step in the current menu. Pressing it repeatedly will eventually return you to the main menu, but will not exit programming mode. When the screen displays a Yes/No question, the Timeclock button is "No".

Wireless Mode

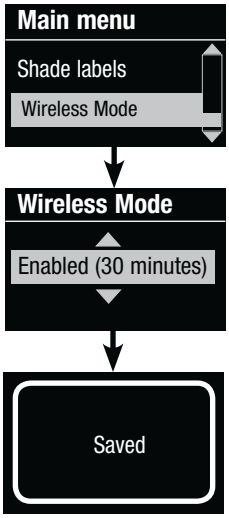
Many models of the GRAFIK Eye® QS control unit support wireless communication with other Lutron® products. This feature allows for easy integration of wireless sensors, keypads, remotes, and shades for single-room wireless applications

Units supporting wireless communication are labeled “GRAFIK Eye® QS Wireless” on the front label of the unit.

The wireless feature of the GRAFIK Eye® QS Wireless control unit has three (3) modes of operation.

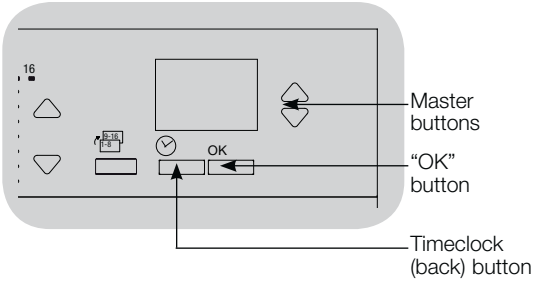
- **Ignore Programming (default):** The GRAFIK Eye® QS Wireless control unit will only respond to normal operation commands from wireless devices associated while in Enabled mode.
- **Disabled:** Use for wired-only systems.
- **Enabled (30 minutes):** The GRAFIK Eye® QS Wireless control unit will respond to any programming commands from nearby Lutron® QS wireless (and compatible) products. The GRAFIK Eye® will automatically revert to “Ignore Programming” mode if there is no activity for 30 minutes.

Changing the wireless mode of the GRAFIK Eye® QS Wireless control unit:



1. Enter programming mode.
2. Use the Master buttons to highlight “Wireless Mode” and press the “OK” button to accept.
3. Use the Master buttons to highlight the desired wireless mode, and press the “OK” button to accept.
4. The info screen will display a confirming “Saved” message.
5. Exit programming mode.

Note: The wireless signal has a range of 30 ft (9 m) through standard construction or 60 ft (18 m) line of sight.



FCC Information

Changes or modifications not expressly approved by Lutron Electronics Co. could void the user’s authority to operate this equipment.

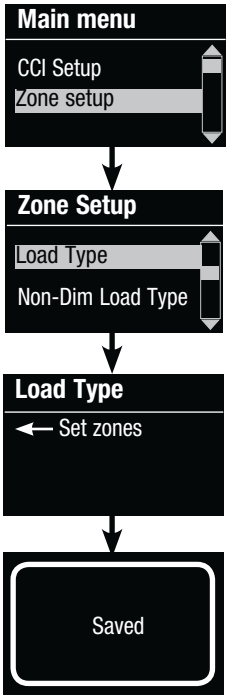
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

These limits are designed to provide reasonable protection against harmful interference in a residential and commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

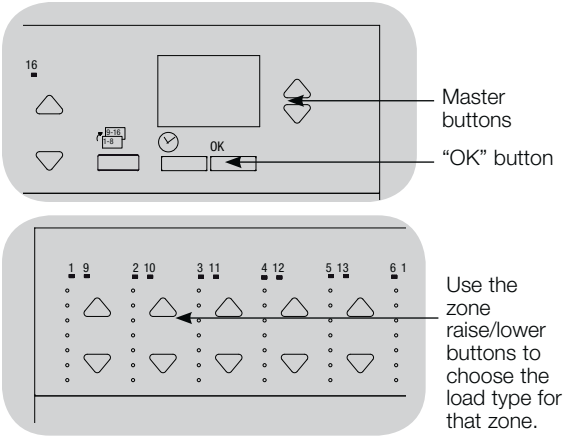
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Zone Setup

Assigning Load Types

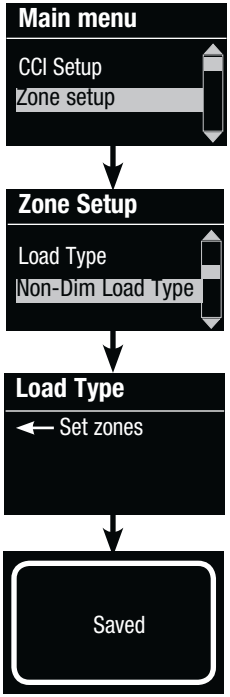


1. Enter programming mode.
2. Use the Master buttons to highlight “Zone setup” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Load type”. Press the “OK” button to accept. See “Setting Load Types” table on the next page.
4. Use the zone raise/lower buttons to choose the load type for that zone. See the list on the next page for supported load types. Press the “OK” button to accept.
5. The info screen will confirm that your load type has been saved.
6. Exit programming mode.



Assigning Non-Dim Load Types

Zones assigned to non-dim loads have five available configurations:

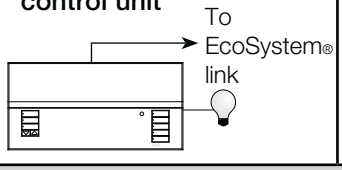
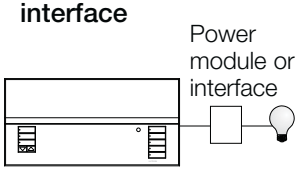


- LOFO: Last On, First Off
- FOFO: First On, First Off
- FOLO: First On, Last Off
- LOLO: Last On, Last Off
- 60/40: On at 60%, off at 40%

Scenes made up of both dim and non-dim load types will toggle the non-dim loads before the dim loads in a “First” on/off configuration, and after the dim loads in a “Last” on/off configuration.

1. Enter programming mode.
2. Use the Master buttons to highlight “Zone setup” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Non-Dim Load type”. Press the “OK” button to accept. See “Setting Load Types” table on the next page.
4. Use the zone raise/lower buttons to choose the non-dim load type for that zone. (Zones not programmed as non-dim will be displayed as Unaffected.) Press the “OK” button to accept.
5. The info screen will confirm that your load type has been saved.
6. Exit programming mode.

Zone Setup (continued)

Setting Load Types			
		Direct control via GRAFIK Eye® QS control unit 	**Control via power module or interface** 
	Fixture load type	**Choose this load type from the menu on the GRAFIK Eye® QS control unit:**	
Zones 1 – 3	Incandescent	Incandescent	Power module
	MLV (magnetic low-voltage)	MLV	Power module
	ELV (electronic low-voltage)	—	Power module
	Hi-Lume®/Eco-10®	—	Fluorescent module
	0-10 V	—	Fluorescent module
	Non-dim lighting loads	Non-dim	Non-dim
	Neon/Cold cathode	Neon, CC	Neon, CC
	Tu-Wire®	Tu-Wire	Tu-Wire
	Advance Mark X®	Tu-Wire	Tu-Wire
	EcoSystem®	Digital load	—
	DMX	—	DMX
	RGB/CMY DMX	—	RGB/CMY DMX
	EcoSystem® switching (e.g., XPJ)	Non-dim digital	—
	Cree LR4/LR6 LED	Cree LR4/LR6 LED	Fluorescent module
	LED	Incandescent*	Power module
Zones 4 – 16	EcoSystem®	Digital load	—
	DMX	—	DMX
	RGB/CMY DMX	—	RGB/CMY DMX
	EcoSystem® switching (e.g., XPJ)	Non-dim digital	—

* Use incandescent load type unless otherwise specified in the LED product selection tool available at www.lutron.com/ledtool.

Load Type Notes

- All electronic low-voltage (ELV) lighting used with an interface must be rated for reverse phase control dimming. Before installing an ELV light source, verify with the manufacturer that their transformer can be dimmed. When dimming, an ELV interface (such as the PHPM-PA-DV-WH) must be used with the control unit.
- For all DMX or RGB/CMY DMX lighting, an external DMX interface (such as the QSE-CI-DMX) must be used with the control unit.
- Maximum total lighting load for Lutron® Tu-Wire® and Advance Mark X® electronic dimming ballasts (120 to 127 V~ only) must not exceed 6 A per zone or 16 A per unit.

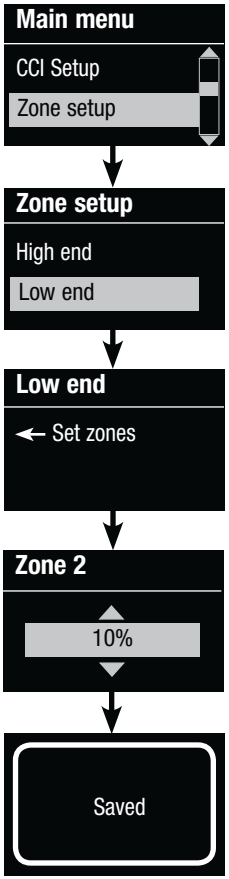
For non-EcoSystem® loads:

- Not all zones must be connected; however, connected zones must have a minimum load:
  120 - 127 V~: 25 W
  220 - 240 V~: 40 W
- Maximum zone loads:
  120 - 127 V~: 800 W
  220 - 240 V~: 1200 W
- Maximum total lighting load for magnetic low-voltage (MLV) varies by input voltage:
  120 - 127 V~: 800 VA / 600 W
  220 - 240 V~: 1200 VA / 960 W

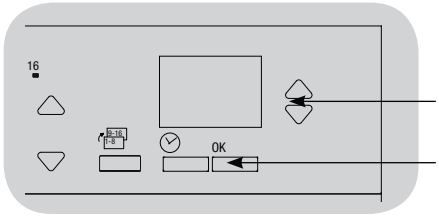
Zone Setup (continued)

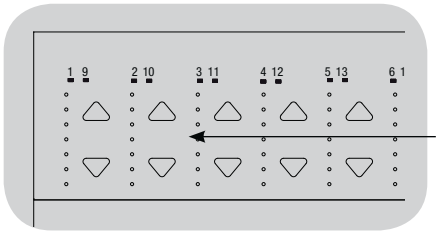
Setting High End or Low End Trim

- If you are unsure about appropriate high and low end settings, please contact Lutron® Technical Support for assistance.
- High and low end trim settings limit the maximum and minimum output of a dimming zone. Trim levels are set automatically when the load type is programmed.



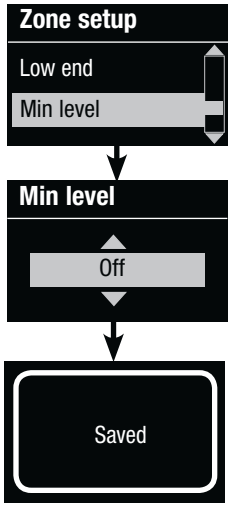
1. Enter programming mode.
2. Use the Master buttons to highlight “Zone setup” and press the “OK” button to accept.
3. Use the Master buttons to highlight “High end” or “Low end” (this example shows low end). Press the “OK” button to accept.
4. Use the zone raise/lower buttons to set the high end or low end trim for that zone. The info screen will display each zone number and percentage as you adjust it. Press the “OK” button to accept.
5. The info screen will confirm that your setting has been saved.
6. Exit programming mode.





Setting Minimum Level (optional)

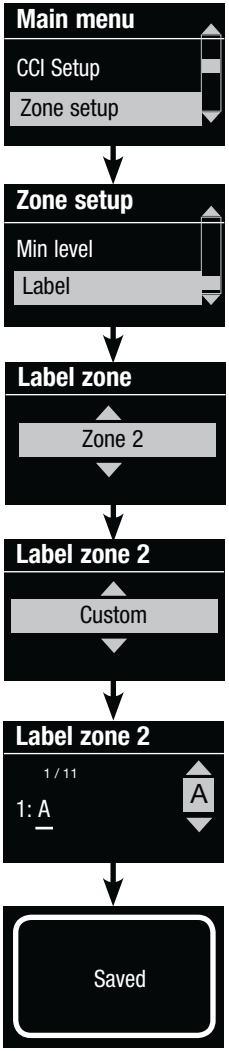
Some local regulations specify a minimum lighting level for dimming zones in occupied buildings. If this pertains to you, follow these steps to set up your minimum lighting level.



1. Enter programming mode and select “Zone setup,” then “Min level”. Press the “OK” button to accept.
2. Use the Master buttons to highlight “Off” if you want your lights to go all the way off at their minimum light level, or “10%” if you want that to be the minimum light level. Press the “OK” button to accept. **Note:** Non-dim loads **will** turn off regardless of the minimum level setting.
3. The info screen will confirm that your minimum level has been saved.
4. Exit programming mode.

Zone Setup (continued)

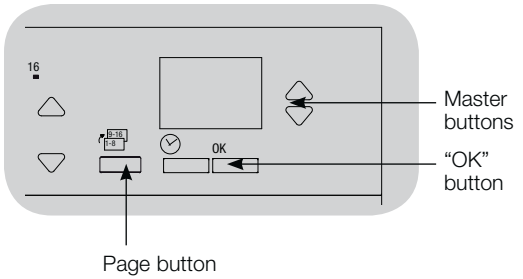
Labeling a Zone (optional)



1. Enter programming mode.
2. Use the Master buttons to highlight “Zone setup” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Label” and press the “OK” button to accept.
4. Use the Master buttons to change the zone number to your desired zone. Custom zone labels will appear if previously set. Press the “OK” button to accept.
5. Use the Master buttons to highlight “Custom” and press the “OK” button to accept. Or, highlight “Default” to return the zone label to the default (e.g., Zone 1).
6. Use the Master buttons to scroll through the characters (lowercase and uppercase letters, plus numbers 0 through 9). The character you are currently changing will be underlined on the screen. Press OK to select the character you want, then repeat for all available characters. Choose a space (no character) and press OK for any remaining characters. Press the “OK” button to accept.

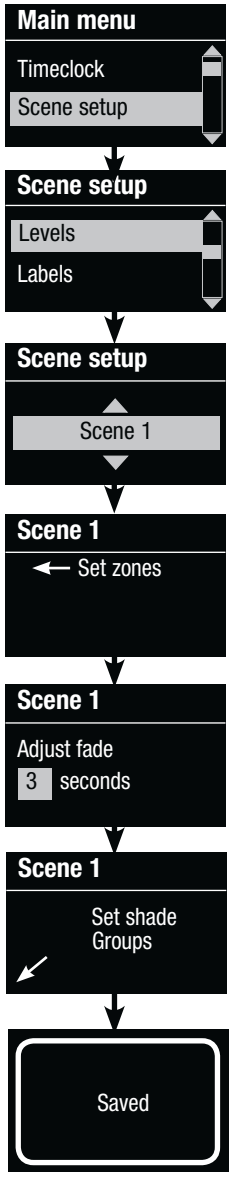
   Note: Custom zone labels will always begin with the zone number and a colon (e.g., 1: Uplights).
7. The info screen will confirm that your name has been saved.
8. Exit programming mode.

   Note: On 16-zone units, use the page button to access all zones.



Scene Setup

Setting Zone Levels, Fade Rates, and Shade Group Actions

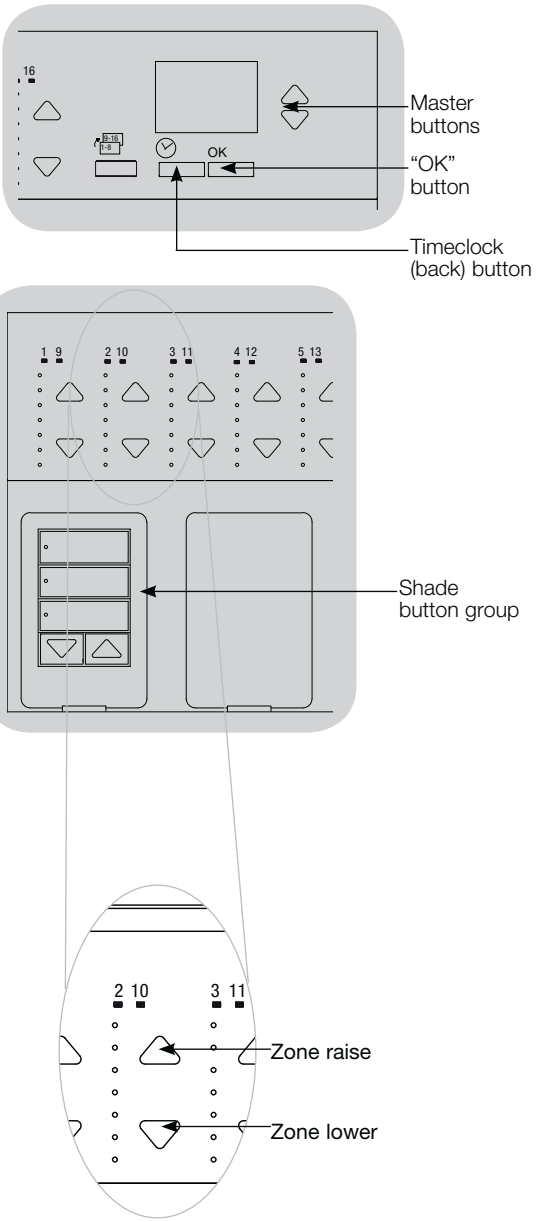


1. Enter programming mode.
2. Use the Master buttons to highlight “Scene setup” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Levels” to adjust lighting and/or shade levels. Press the “OK” button to accept. Use the Master buttons to highlight the scene number of your desired scene. Press the “OK” button to accept.
4. Set each zone to the desired light level for this scene using the zone raise/lower buttons. The info screen will display the zone and percentage as you adjust it.

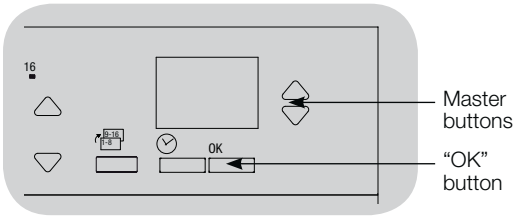
   To set a zone as unaffected, lower the light levels all the way to off, then hold the zone lower button for 3 seconds. The screen will display “---” and the three middle LEDs for the zone will be lit to indicate this zone is unaffected by the scene (the zone will not change when this scene is initiated).

   When all zones are at the desired level, press the “OK” button to accept.
5. Use the Master buttons to set the fade time for this scene. Press the “OK” button to accept.
6. **Note:** This step is applicable only if you have shades on your system. If you do not have or do not wish to set shade groups for this scene, press the “OK” button to skip this step.

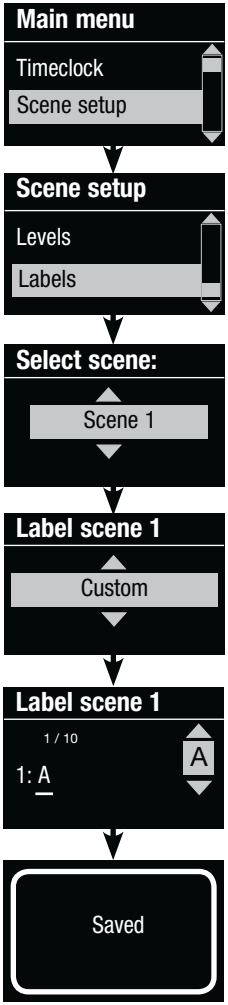
   Set each shade group to the desired level for this scene. When all shade groups are at the desired level, press the “OK” button to accept.
   For shade programming, see the section on adjusting shade settings.
7. The info screen will confirm that your scene has been saved.
8. Exit programming mode.



Scene Setup (continued)

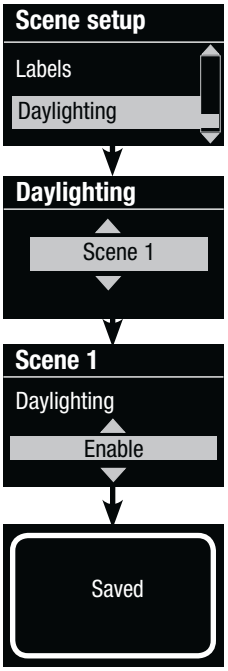


Labeling a Scene (optional)



1. Enter programming mode.
2. Use the Master buttons to highlight "Scene setup" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Labels" and press the "OK" button to accept.
4. Use the Master buttons to highlight your desired scene. Press the "OK" button to accept.
5. Use the Master buttons to highlight "Custom" and press the "OK" button to accept.
6. Use the Master buttons to scroll through the characters (lowercase and uppercase letters, plus numbers 0 through 9). The character you are currently changing will be underlined on the screen. Press OK to select the character you want, then repeat for all available characters. Choose a space (no character) and press OK for any remaining characters. Press the "OK" button to accept.
7. The info screen will confirm that your name has been saved.
8. Exit programming mode.

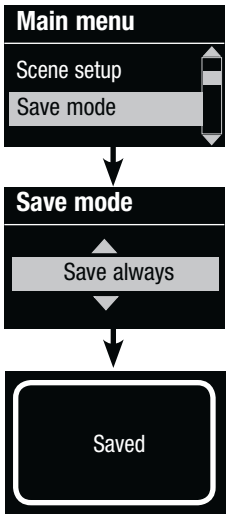
Enabling/Disabling Daylighting in a Scene



1. Enter programming mode.
2. Use the Master buttons to highlight "Scene setup" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Daylighting" and press the "OK" button to accept.
4. Use the Master buttons to highlight your desired scene. Press the "OK" button to accept.
5. Use the Master buttons to select "Enable" or "Disable". When daylighting is disabled in a scene, the GRAFIK Eye® QS control unit will not respond to daylight sensors information when that scene is active.
   Press OK to save.
6. Exit programming mode.

Setting Save Mode

The “Save Mode” of the GRAFIK Eye® QS control unit can be adjusted to turn quick scene programming on and off, or to disable the use of zone and/or scene buttons for specific applications.



Save Mode Settings

Save by OK (default): Quick scene programming mode; zone adjustments are temporary until the “OK” button is pressed to confirm the selection.

Save always: Automatically save changes made to lighting levels or fade time to Off (Master button changes are temporary).

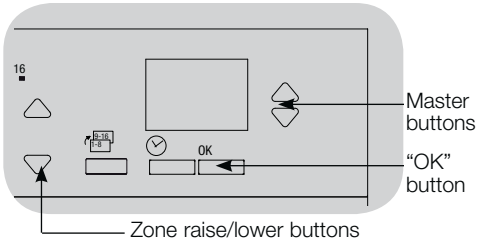
Save never: Do not save any temporary changes to lighting levels or fade time.

Four scenes (typically used for rented spaces): Zone raise/lower buttons are disabled. Master raise/lower buttons, wallstations, and IR receiver are still enabled for adjustment of light level, but these changes are not saved.

Button disable (typically used in a public space): Only the Timeclock button, IR receiver, and wallstations can be used to make temporary changes.

Changing the Save Mode

1. Enter programming mode.
2. Use the Master buttons to highlight “Save mode” and press the “OK” button to accept.
3. Use the Master buttons to highlight the desired save mode. The save modes are listed and explained below.
4. Press the “OK” button to accept. The info screen will confirm that your save mode has been saved.
5. Exit programming mode.



Quick Scene Programming: “Save by OK” Mode

By default, the GRAFIK Eye® QS control unit is in “Save by OK” mode, which allows you to quickly set scenes without entering program mode.

1. Press the button for the scene you want to set; its LED will light and the lights will go to the current settings.
2. Use the zone raise/lower buttons to set all lights to the desired levels. Press the “OK” button to select.
3. Set the fade time to the desired length using the Master buttons, and press the “OK” button to save.
4. The info screen will confirm that the new scene settings have been saved.

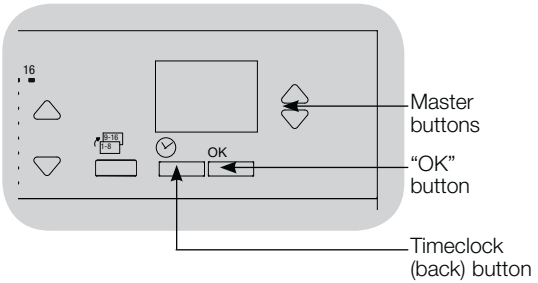
Notes

- Using the Master buttons to raise or lower lighting settings is still temporary.
- To set a zone to unaffected (---), press and hold the zone lower button for 6 seconds after the zone has gone to 0% light level.

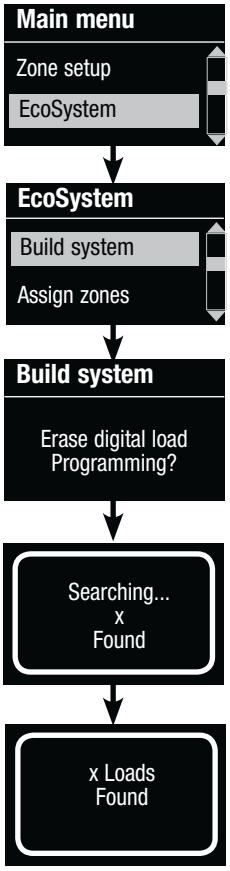
EcoSystem® Setup

After EcoSystem® devices are wired and powered, they must be addressed before the system can control them. The “Build System” command automates this process.

Note: All existing EcoSystem® programming will be deleted when the “Build System” command is run, including EcoSystem® sensor programming on the GRAFIK Eye® QS control unit.

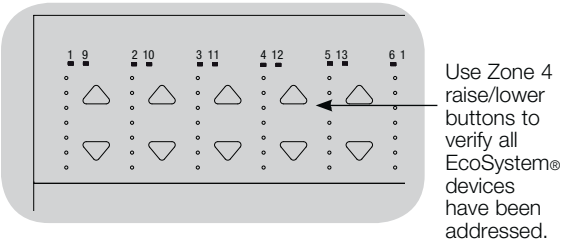


Building the System



1. Enter programming mode.
2. Use the Master buttons to highlight “EcoSystem” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Build system” and press the “OK” button to accept.
4. Press the “OK” button to erase all current programming, reset and address EcoSystem® devices, and find sensors on the system.
5. Exit programming mode.

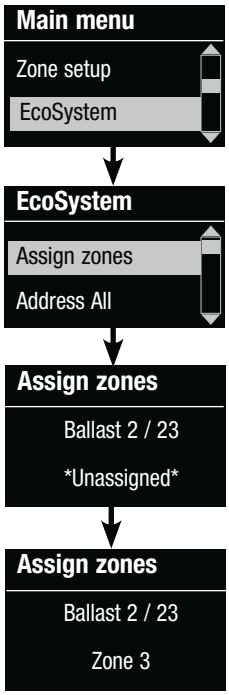
Note: After running “Build System”, Zone 4 will control all EcoSystem® devices for diagnostics and verification of wiring. (This feature is disabled once any of the addressed devices are assigned to a zone on the GRAFIK Eye® QS control unit.) Use the Zone 4 raise/lower buttons to verify that all devices are correctly addressed. If a device does not respond, repeat the “Build System” command and/or check the wiring.



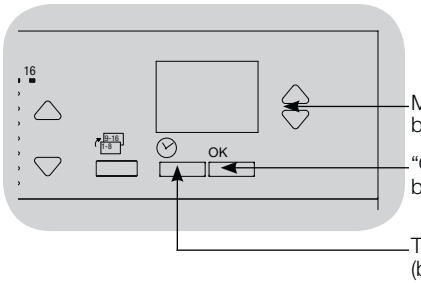
EcoSystem® Setup (continued)

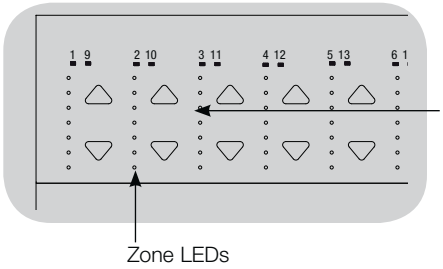
Assigning/Unassigning an EcoSystem® Device to a Zone

EcoSystem® devices must be addressed on the system (see previous page) before assigning or unassigning to a zone.



1. Enter programming mode.
2. Use the Master buttons to highlight “EcoSystem” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Assign zones” and press the “OK” button to accept.
4. Use the Master buttons to scroll through the EcoSystem® devices on the link. The selected device will flash, and the info screen will display the device number and the number of devices on the link. If the device is currently assigned to a zone, the zone number will display at the bottom of the screen and the LEDs for the zone will go on; otherwise, the info screen will display “*Unassigned*”.
   - Press the zone raise button to assign the device to that zone.
   - Press the zone lower button to unassign the device to that zone.
5. Press the Timeclock (back) button to return to the EcoSystem® menu. EcoSystem® devices will return to normal levels.
6. Exit programming mode.

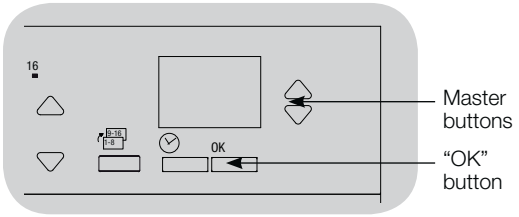




Notes

- Devices that were previously assigned to a zone will be removed from the old zone and assigned to the new zone (each device can be assigned to only 1 zone at a time).
- Devices can be assigned only to zones set to EcoSystem® load type.
- Refer to the Zone Setup section for instructions on changing load type.

EcoSystem® Setup (continued)

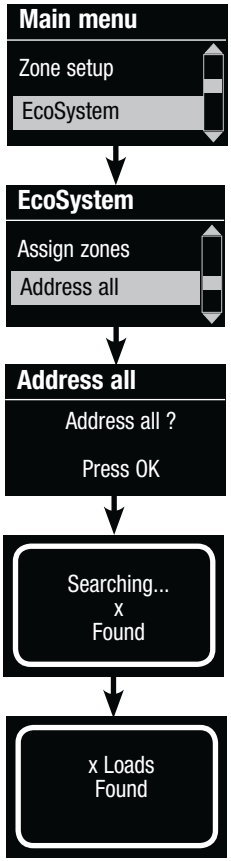


Addressing EcoSystem® Devices

The "Address All" command can be used to add/replace EcoSystem® devices on the system without running the "Build System" command (this avoids erasing all the existing programming information).

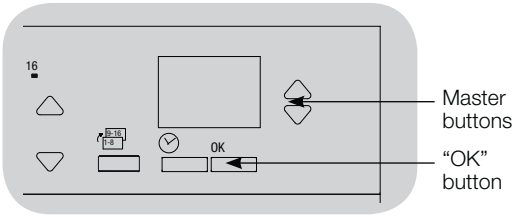
The "Address All" command will treat replacement EcoSystem® devices as completely new devices added to the system, increasing the total device count with every new/replacement device.

Note: If the system already contains 64 EcoSystem® devices, go to "Reset Missing Ballast Addresses" screen on next page.



1. Enter programming mode.
2. Use the Master buttons to highlight "EcoSystem" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Address all" and press the "OK" button to accept. All EcoSystem® devices in the system will go to full On. As each EcoSystem® device is addressed, the GRAFIK Eye® QS control unit will display information about it, and the device will go to its low end. This will take several minutes. The system will then return to the main menu.
4. To program new/replacement devices, follow the instructions to assign EcoSystem® devices to a zone.
5. Exit programming mode.

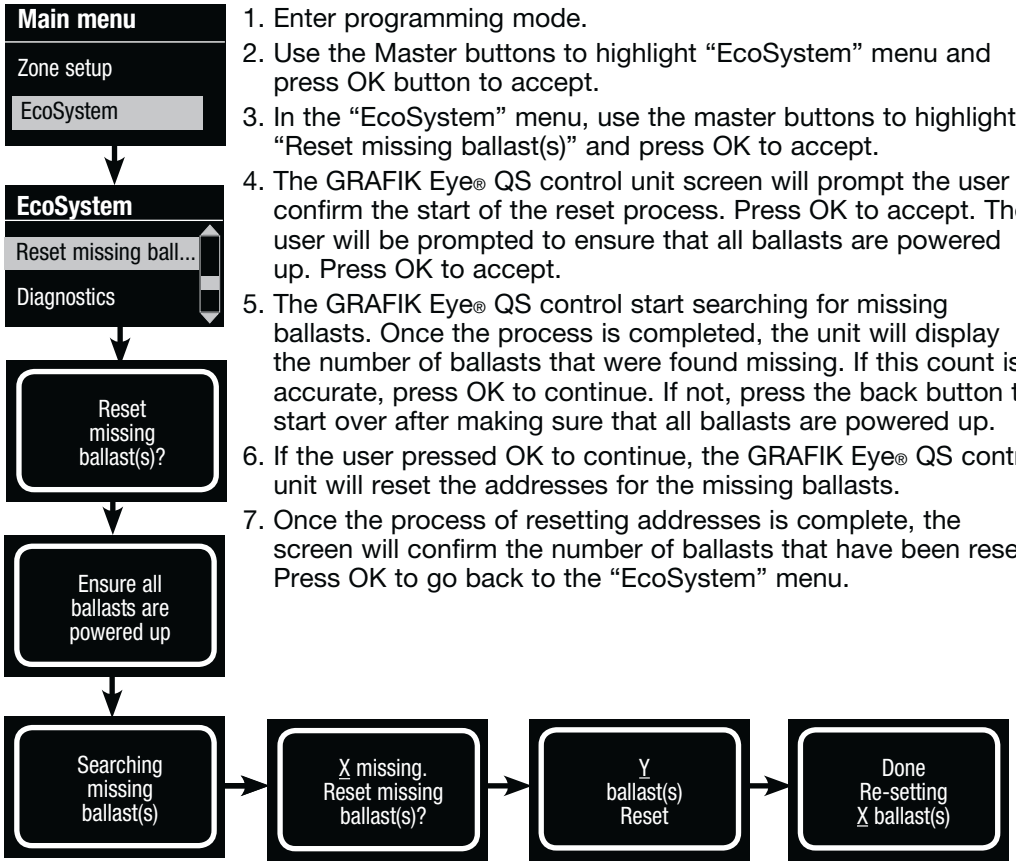
EcoSystem® Setup (continued)



Reset Missing Ballast Addresses (software revision 9.003 or higher)*

If the GRAFIK Eye® EcoSystem® contains 64 ballasts and there is a need to replace some ballasts, this menu can be used to reset the addresses of the missing ballasts, before the replacement ballasts can be added to the system.

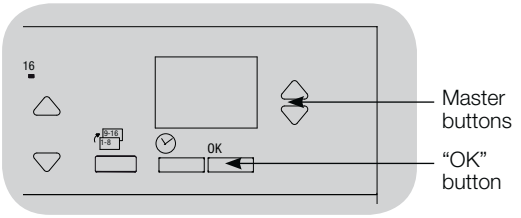
Follow the steps below to reset the addresses for the missing ballasts:



1. Enter programming mode.
2. Use the Master buttons to highlight "EcoSystem" menu and press OK button to accept.
3. In the "EcoSystem" menu, use the master buttons to highlight "Reset missing ballast(s)" and press OK to accept.
4. The GRAFIK Eye® QS control unit screen will prompt the user to confirm the start of the reset process. Press OK to accept. The user will be prompted to ensure that all ballasts are powered up. Press OK to accept.
5. The GRAFIK Eye® QS control start searching for missing ballasts. Once the process is completed, the unit will display the number of ballasts that were found missing. If this count is accurate, press OK to continue. If not, press the back button to start over after making sure that all ballasts are powered up.
6. If the user pressed OK to continue, the GRAFIK Eye® QS control unit will reset the addresses for the missing ballasts.
7. Once the process of resetting addresses is complete, the screen will confirm the number of ballasts that have been reset. Press OK to go back to the "EcoSystem" menu.

*This screen menu is only available in units with software revision 9.003 or higher. If you want to reset ballasts on a unit with an older version of software, please contact Lutron Customer Support.

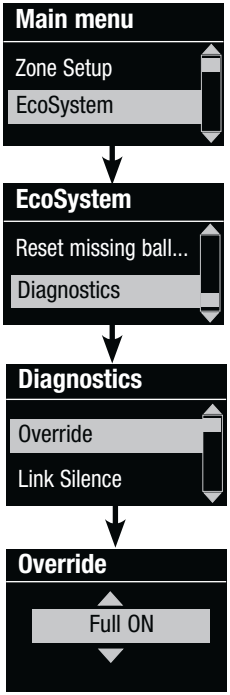
EcoSystem® Setup (continued)



Diagnostics (software revision 9.003 or higher)

The diagnostics menu in the EcoSystem® Setup can be used to verify the EcoSystem® communication.

Follow the steps below for verification of EcoSystem® communication:

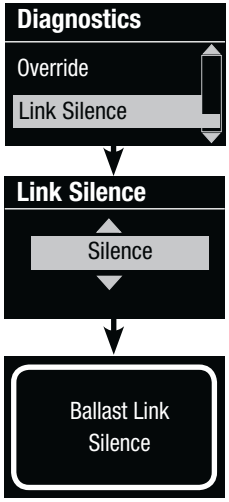


1. Enter programming mode.
2. Use the Master buttons to highlight the "EcoSystem" menu and press the "OK" button to accept.
3. In the "EcoSystem" menu, use the Master buttons to highlight "Diagnostics" and press "OK" to accept.
4. In the "Diagnostics" menu, use the Master buttons to highlight "Override" and press "OK" to accept.
5. Use the Master buttons to select the options for "Full ON," "Min Level," or "OFF" and press OK to send the ballasts on the link to the selected levels for verifying the link communication.
6. Once the process of verifying communication is complete, press the back button to go back to the "EcoSystem" menu.

Link Silence (software revision 9.003 or higher)

Link silence is a feature for Lutron Field Service only. It allows the user to disable the communication over the ballast link for smooth firmware upgrades on ballasts. Follow the steps below to set the link status to "silence":

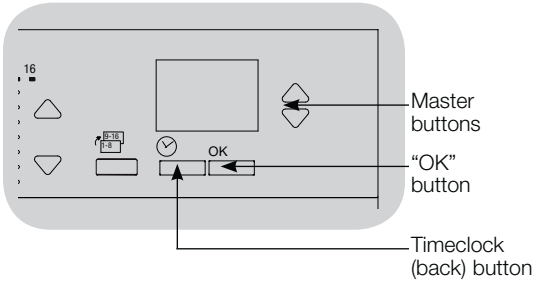
(Link mode is set to normal, by default, when the Grafik Eye® QS control unit powers up.)



1. In the "EcoSystem" menu, use the Master buttons to highlight "Link Silence" and press OK to select it.
2. Use the Master buttons to select between "Normal" and "Silence" options, press OK to confirm.
3. The info screen will confirm that the selected link status is saved.

Contact Closure Input (CCI) Setup

(wired directly to the GRAFIK Eye® QS control unit)



The integral contact closure input (CCI) on the back of the GRAFIK Eye® QS control unit can be configured as:

Occupancy (default): Allows a wired occupancy sensor to be included in the list of available sensors when setting up occupancy actions.

Emergency: This setting allows the GRAFIK Eye® QS control unit to work with a LUT-ELI-3PH emergency lighting interface. When an emergency situation is detected, all lights will go to full on, and will not change until the emergency signal is cleared.

Afterhours: Allows the CCI to start and end Afterhours.

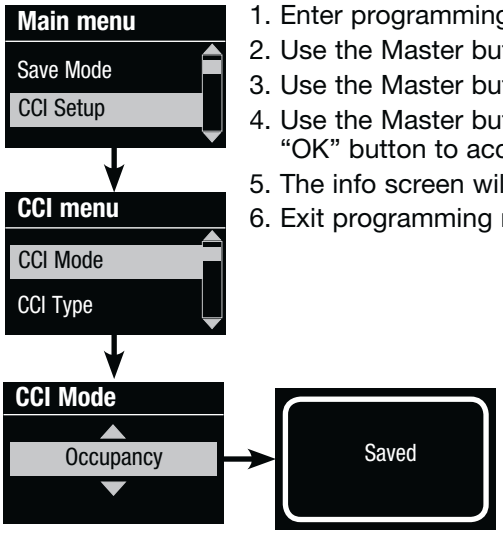
Timeclock: Allows the CCI to enable and disable the timeclock.

Lockout: Prevents the user from making any changes to the control unit. The current scene will stay on until the CCI enables normal operation.

Never Save: Prevents any changes from being saved while the CCI is being used.

Disable CCI: The CCI will have no effect on the system and will not appear on the list of available occupancy sensors within the sensor setup menu.

Changing the operation of the contact closure input:

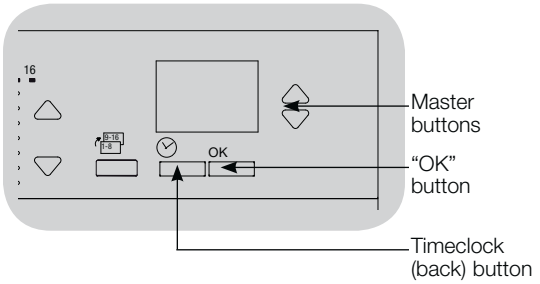


1. Enter programming mode.
2. Use the Master buttons to highlight "CCI Setup" and press the "OK" button to accept.
3. Use the Master buttons to highlight "CCI Mode" and press the "OK" button to accept.
4. Use the Master buttons to highlight the mode you wish the CCI to control. Press the "OK" button to accept.
5. The info screen will confirm that your setting has been saved.
6. Exit programming mode.

(continued on the next page)

Contact Closure Input (CCI) Setup (continued)

(wired directly to the GRAFIK Eye® QS control unit)

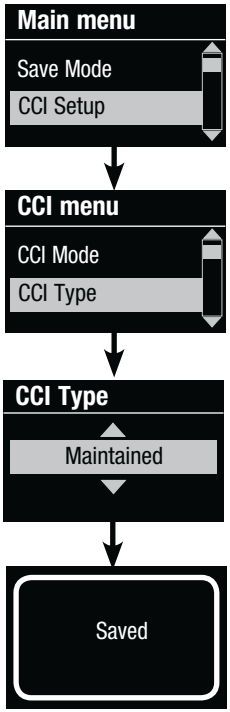


The integral contact closure input (CCI) on the back of the GRAFIK Eye® QS control unit is compatible with either type of contact closure device:

Maintained (default): The GRAFIK Eye® QS control unit will act on both a contact closure and a contact open/release event.
Example: "CCI Mode" set to "Afterhours." Contact closure starts "Afterhours." Contact open/release ends "Afterhours."

Momentary: The GRAFIK Eye® QS control unit will act on only contact closure events.
Example: "CCI Mode" set to "Afterhours." Contact closure starts "Afterhours." Contact open/release has no effect. Second contact closure ends "Afterhours."

Changing the type of contact closure input:



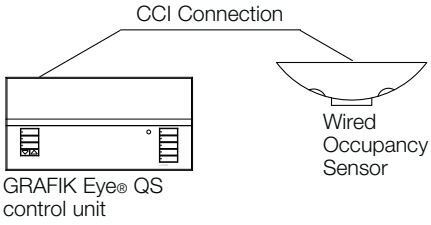
1. Enter programming mode.
2. Use the Master buttons to highlight "CCI Setup" and press the "OK" button to accept.
3. Use the Master buttons to highlight "CCI Type" and press the "OK" button to accept.
4. Use the Master buttons to highlight the type you wish the CCI to control. Press the "OK" button to accept.
5. The info screen will confirm that your setting has been saved.
6. Exit programming mode.

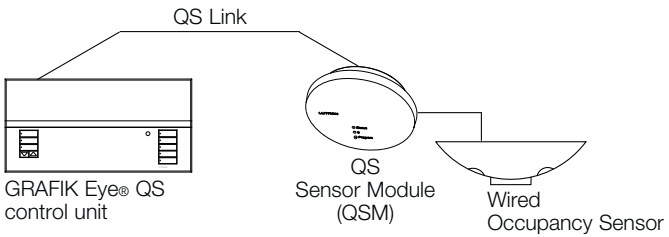
Note: The "Emergency CCI Mode" is different from the other CCI modes in that "Emergency Mode" will activate on a contact open/release and will deactivate on a contact closure. The CCI must be set to "Maintained" (default) for proper "Emergency Mode" operation.

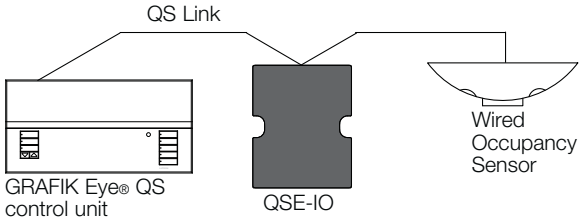
Occupancy Sensor Setup

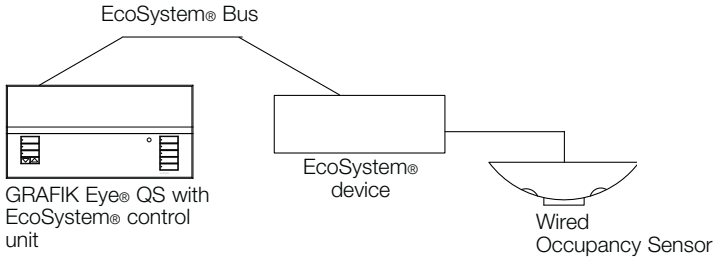
Lutron® occupancy and vacancy sensors work with the GRAFIK Eye® QS Wireless control unit to automatically adjust light levels when occupancy or vacancy is detected.

Wired occupancy and vacancy sensors may be connected to the contact closure input on the GRAFIK Eye® QS control unit, a QS Sensor Module (QSM), a Contact Closure Interface in the GRAFIK Eye® QS system, or an EcoSystem® device addressed to the GRAFIK Eye® QS control unit.

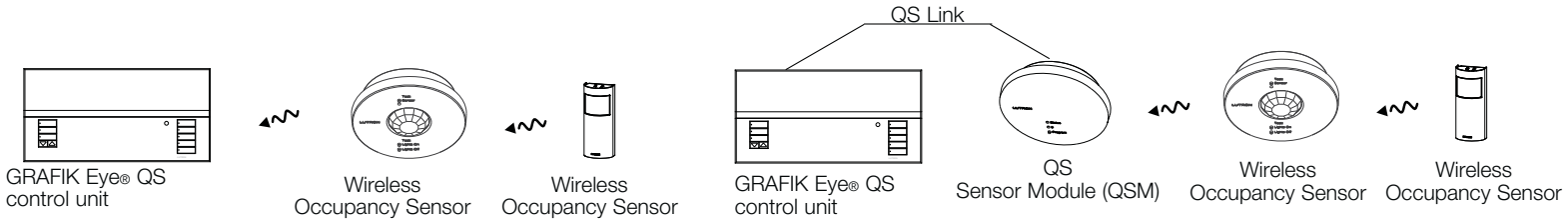








Wireless Radio Powr Savr™ occupancy and vacancy sensors can be associated with a GRAFIK Eye® QS Wireless or QSM. Wireless sensors must first be associated to one of these devices before they will be recognized by a GRAFIK Eye® QS Wireless system.

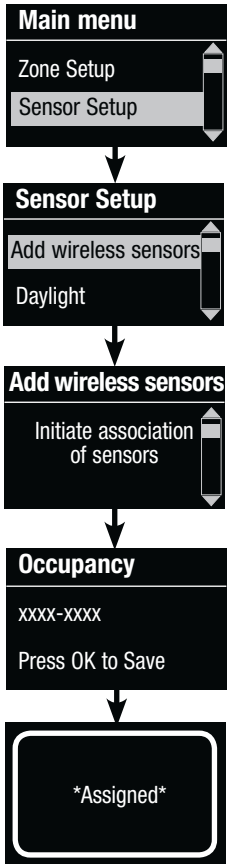


The following steps are required to program occupancy sensors with a GRAFIK Eye® QS control unit.

1. Connect wired sensors, or associate wireless sensors.
2. Choose the mode of operation (scene control or zone control).
3. Select sensors.
4. Assign sensor actions.
5. Configure sensor settings (optional).

Occupancy Sensor Setup (continued)

Associating wireless occupancy sensors and GRAFIK Eye® QS Wireless control units (for wireless enabled units only):

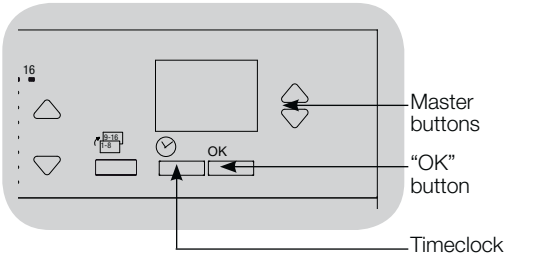


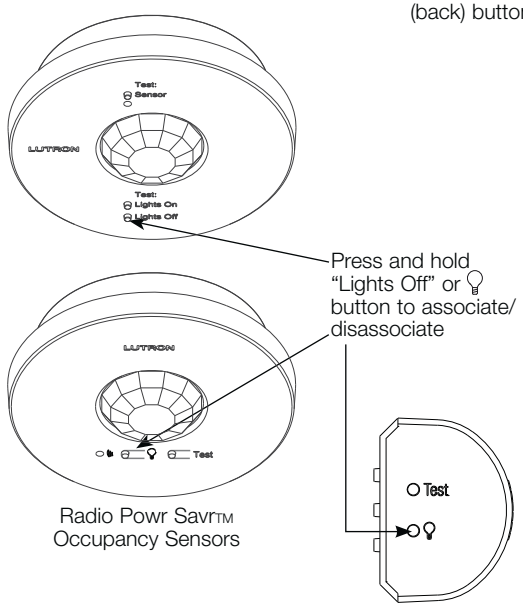
1. Make sure the wireless mode of the GRAFIK Eye® QS control unit is “Enabled”.
2. Enter programming mode.
3. Use the Master buttons to highlight “Sensor Setup” and press the “OK” button to accept.
4. Use the Master buttons to highlight “Add wireless sensors” and press the “OK” button to accept.
5. Press and hold the “Lights Off” button (on some sensors) on the occupancy sensor for 6 seconds. The lens will start flashing and the info screen on the GRAFIK Eye® QS Wireless control unit will display the sensor’s serial number.
6. Press the “OK” button on the GRAFIK Eye® QS control unit. A screen will confirm that the sensor has been assigned. (To disassociate a wireless occupancy sensor from the GRAFIK Eye® QS control unit, Refer to the Radio Powr Savr™ occupancy sensor install guide to return the sensor to its “out-of-box” functionality. Doing so will remove its programming from the GRAFIK Eye® QS control unit.)
7. Repeat the above steps for all desired sensors.
8. Exit programming mode.

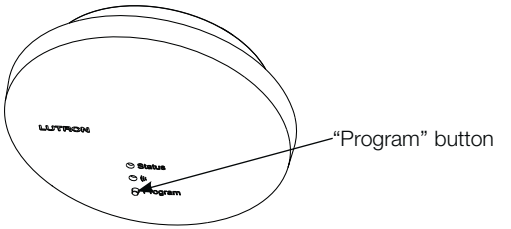
Associating wireless occupancy sensors through QS Sensor Modules (QSM):

1. Press and hold the “Program” button on the QSM for 3 seconds to enter programming mode. There will be 1 audible beep and the Status LED will begin flashing. The info screen on the GRAFIK Eye® QS control unit will display that the QSM is in programming mode.
2. Press and hold the “Lights Off” button (on some sensors) on the occupancy sensor for 6 seconds. There will be 3 audible beeps from the QSM to verify association.
3. Press and hold the “Program” button on the QSM for 3 seconds to exit programming mode.

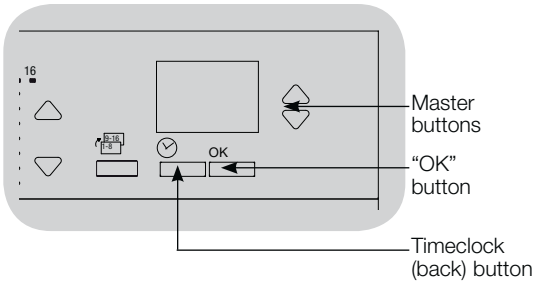
Note: The wireless signal has a range of 30 ft (9 m) through standard construction or 60 ft (18 m) line of sight.







Occupancy Sensor Setup (continued)

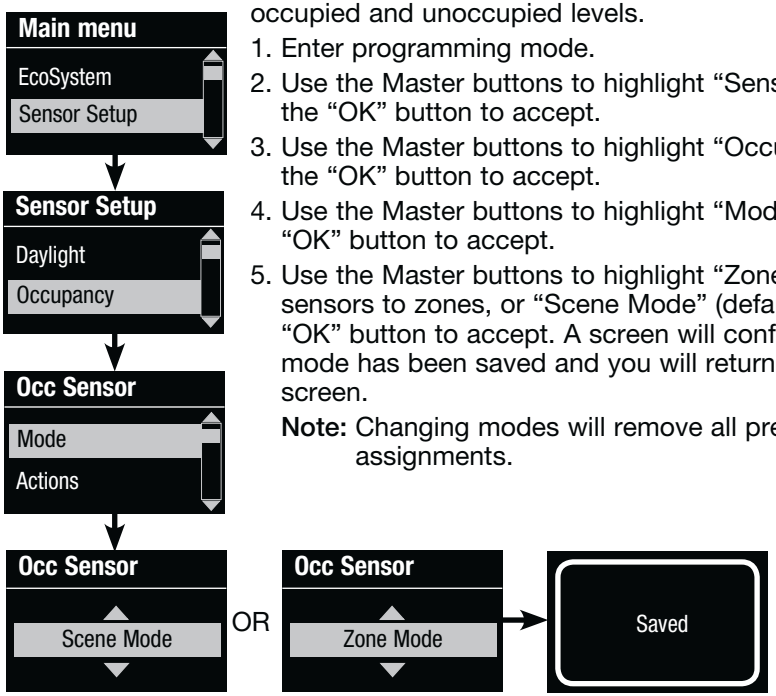


When the GRAFIK Eye® QS system is first powered up, occupancy sensors connected to the contact closure input (and the first three associated wireless Radio Powr Savr™ occupancy sensors) will automatically operate in "Scene Mode." Their defaults will be "No Action" for the occupied state and "Scene Off" for the unoccupied state. For additional sensors and/or alternate functionality, please complete all required programming actions.

Selecting the Mode

Scene Mode (default) is useful when the GRAFIK Eye® QS control unit is controlling lights in a single room or area. Up to 16* sensors can be assigned to the GRAFIK Eye® QS control unit to activate a scene when the space is occupied, and another scene when unoccupied.

Zone Mode is useful when the GRAFIK Eye® QS control unit is controlling lights in multiple areas within a room. Up to four sensors can be assigned to each zone (a sensor can be assigned to more than one zone) to send the zones to configurable occupied and unoccupied levels.

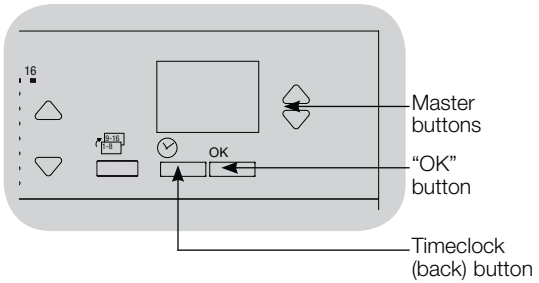


1. Enter programming mode.
2. Use the Master buttons to highlight "Sensor Setup" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Occupancy" and press the "OK" button to accept.
4. Use the Master buttons to highlight "Mode" and press the "OK" button to accept.
5. Use the Master buttons to highlight "Zone Mode" to assign sensors to zones, or "Scene Mode" (default). Press the "OK" button to accept. A screen will confirm your selected mode has been saved and you will return to the Daylight Sensor screen.

Note: Changing modes will remove all previous occupancy assignments.

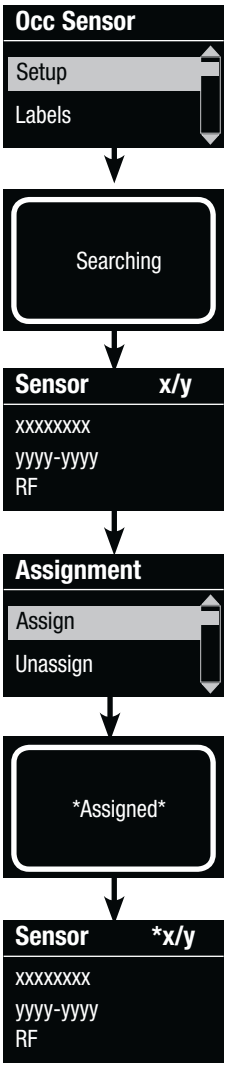
* Applicable only to units that ship with firmware version 9.003 and higher. Previous versions support up to 4 sensors.

Occupancy Sensor Setup (continued)



Scene Mode

This step allows you to assign up to 16* occupancy sensors to the GRAFIK Eye® QS control unit.



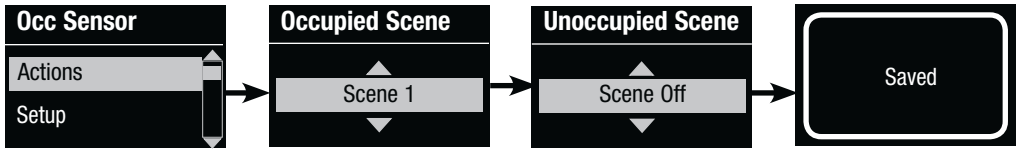
Selecting Sensors

1. If not already done, associate occupancy sensors and set to "Scene Mode".
2. Use the Master buttons to highlight "Setup" and press the "OK" button to accept. The info screen will display "Searching" while the unit detects available occupancy sensors.
3. Use the Master buttons to scroll through the list of available occupancy sensors. When the desired sensor is displayed, press the "OK" button to select it. Then choose "Assign" or "Unassign" from the following menu and press OK. Once a sensor has been assigned, it will appear with an asterisk (*) in the sensor list. Repeat for additional sensors.

   Note: If wireless sensors are not found, verify that they are associated correctly.

Setting the Sensor Action

1. Press the Timeclock (back) button to return to the Occ Sensor screen. Use the Master buttons to highlight "Actions" and press the "OK" button. By default, the occupied scene is set to "No Action" and the unoccupied scene is set to "Scene Off".
2. Use the Master buttons to highlight the scene you wish to use for occupied status and press the "OK" button to accept. Repeat for the scene you wish to use for unoccupied status. Press the "OK" button to accept.
3. Exit programming mode.

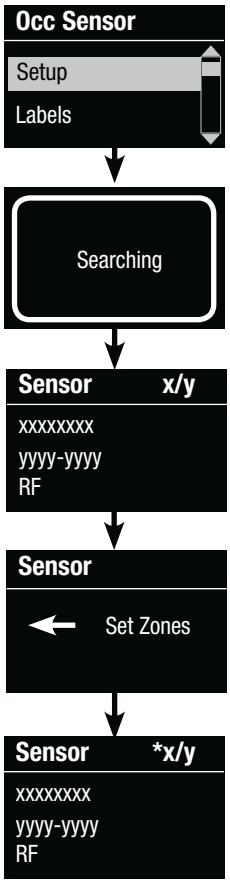


* Applicable only to units that ship with firmware version 9.003 and higher. Previous versions support up to 4 sensors.

Occupancy Sensor Setup (continued)

Zone Mode

This step allows you to assign up to four occupancy sensors per zone to the GRAFIK Eye® QS control unit. Sensors can be added to more than one zone.



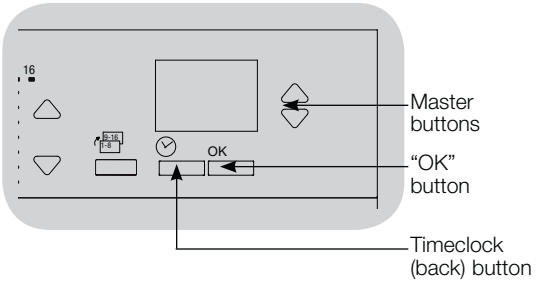
Selecting Sensors

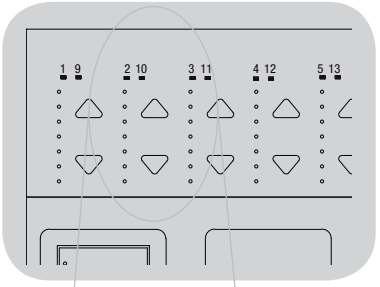
1. If not already done, associate sensors and set to “Zone Mode”.
2. Use the Master buttons to highlight “Setup” and press the “OK” button to accept.
3. You can assign up to four sensors per zone, and a sensor can be assigned to more than one zone. Use the Master buttons to scroll through the sensors until the one you wish to assign or unassign is highlighted, and press the “OK” button to select it.
4. Use the zone raise and lower buttons for each desired zone to assign or unassign the sensor to that zone. The zone raise button assigns the displayed sensor, and the zone lower button unassigns it. Press the Timeclock (back) button to return to the list of available sensors. Once a sensor has been assigned, it will appear with an asterisk (*) in the sensor list. Repeat for additional sensors.

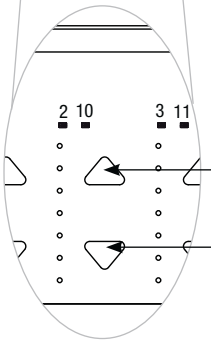
   Note: If wireless sensors are not found, verify that they are associated correctly.

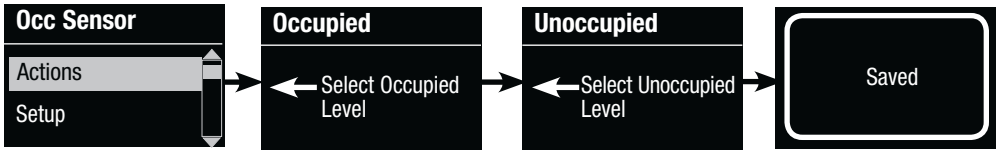
Setting the Sensor Action

1. Press the Timeclock (back) button to return to the Occ Sensor screen. Use the Master buttons to highlight “Actions” and press the “OK” button to accept.
2. Use the zone raise and lower buttons to adjust each zone to the desired occupied level and press the “OK” button to save. To set a zone as unaffected, lower the light levels all the way to off, then hold the zone lower button for 3 seconds. The screen will display “---” and the three middle LEDs for the zone will be lit to indicate this zone is unaffected by the scene (the zone will not change when this scene is initiated).
3. Use the zone raise and lower buttons to adjust each zone to the desired unoccupied level, and press the “OK” button to save.
4. Exit programming mode.



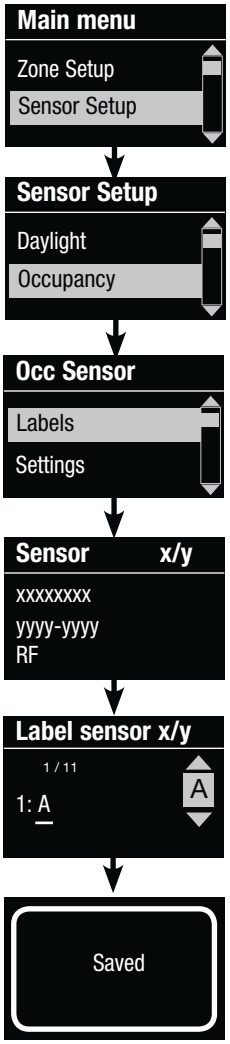




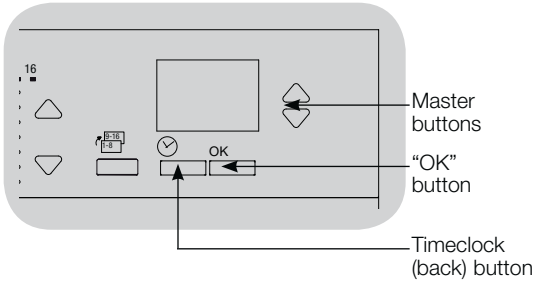


Occupancy Sensor Setup (continued)

Labeling an Occupancy Sensor (optional)

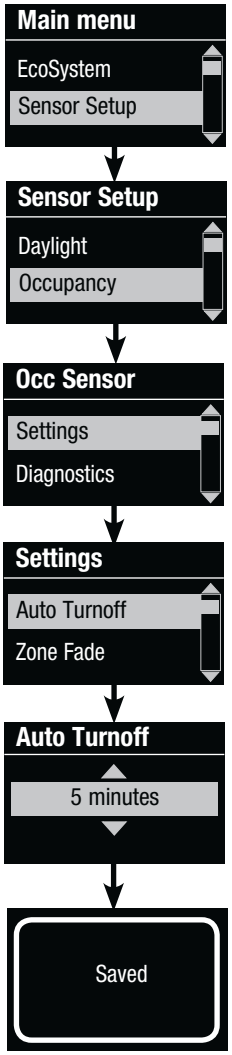


1. Enter programming mode.
2. Use the Master buttons to highlight “Sensor Setup” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Occupancy” and press the “OK” button to accept.
4. Use the Master buttons to highlight “Labels” and press the “OK” button to accept.
5. Use the Master buttons to display an occupancy sensor to label and press OK to select.
6. Use the Master buttons to scroll through the characters (lowercase and uppercase letters, plus numbers 0 through 9). The character you are currently changing will be underlined on the screen. Press OK to select the character you want, then repeat for all available characters. Choose a space (no character) and press OK for any remaining characters. The info screen will confirm that your name has been saved. Repeat for all desired sensors.
7. Exit programming mode.



Occupancy Sensor Setup (continued)

Configuring Occupancy Sensor Settings (optional)



Occupancy Sensor Settings

Note: These settings affect all sensors assigned to the GRAFIK Eye® QS control unit.

Grace Period: If the GRAFIK Eye® QS control unit is transitioning to an unoccupied state, motion detected within the grace period will return the lights to the previously occupied level.
Range: 0 – 30* seconds (default 15 seconds).

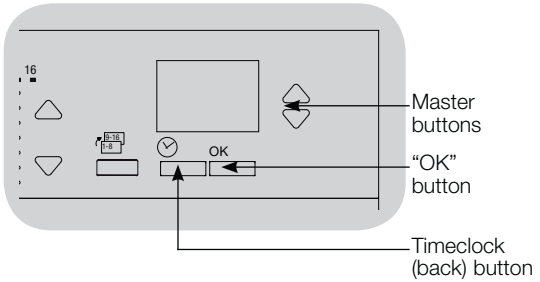
Vacancy Delay: An additional time delay after vacancy is detected and before unoccupied action occurs. Use when occupancy sensor does not provide sufficient delay.
Range: 0 – 30 minutes (default 0 minutes).

Auto Turnoff: If lights assigned to an occupancy sensor are turned on manually without the sensor reporting occupancy, the GRAFIK Eye® QS control unit can be set to automatically turn off the lights after a set time delay. Disable this feature by setting the time delay to 0 (disabled).
Range: Disabled or 1 – 30 minutes (default Disabled).

Zone Fade: When in Zone Mode, lights can be set to fade to the unoccupied levels over this period of time.
Range: 0 – 59 seconds; 1 – 10 minutes (default 10 seconds).

Configuring the Sensor Settings:

1. Enter programming mode.
2. Use the Master buttons to highlight “Sensor Setup” and press the “OK” button to accept.
3. Use the Master buttons to highlight “Occupancy” and press the “OK” button to accept.
4. Use the Master buttons to highlight “Settings” and press the “OK” button to accept.
5. Use the Master buttons to highlight the setting you wish to configure. Press the “OK” button to accept.
6. Use the Master buttons to adjust the value of the selected setting. Press the “OK” button to accept.
7. The info screen will confirm that your setting has been saved.
8. Exit programming mode.

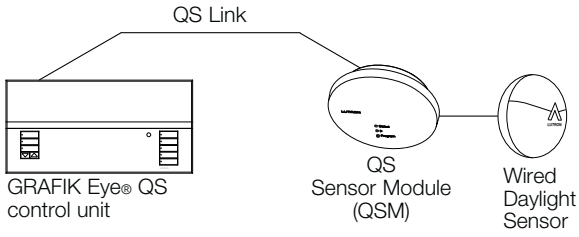


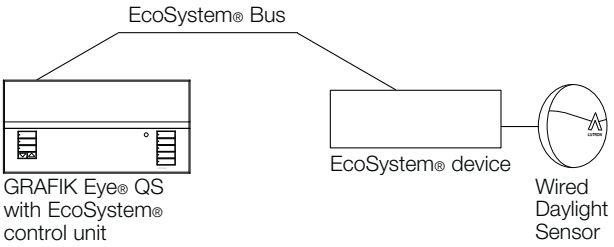
* Applicable only to units that ship with firmware version 8.027 and higher. Previous versions support settings between 15–30 seconds.

Daylight Sensor Setup

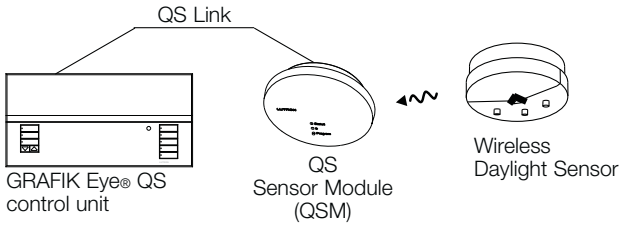
Lutron® daylight sensors work with the GRAFIK Eye® QS Wireless control unit to automatically adjust electric light levels when natural light in the room changes.

Wired daylight sensors may be connected to a QS Sensor Module (QSM) in the QS system, or to an EcoSystem® device addressed to the GRAFIK Eye® QS control unit.





Wireless Radio Powr Savr™ daylight sensors can be associated with a GRAFIK Eye® QS control unit or QSM. Wireless sensors must first be associated with one of these devices to be recognized by a GRAFIK Eye® QS wireless system.



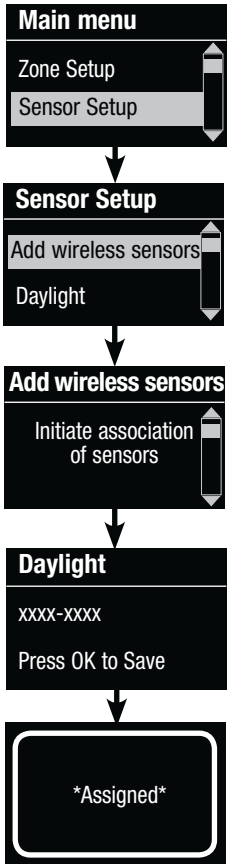
The following steps are required to program daylight sensors with a GRAFIK Eye® QS control unit. Instructions for each step are on the pages that follow.

1. Connect wired sensors, or associate wireless sensors.
2. Assign the mode of operation: zone control or group control. (If you assign group mode, set up the groups.)
3. Assign sensors to zones or groups.
4. Calibrate the system to achieve the desired response to natural light.

Note: The Daylighting feature is not supported for the DMX load type.

Daylight Sensor Setup (continued)

Associating wireless daylight sensors and GRAFIK Eye® QS Wireless control units (for wireless enabled units only):

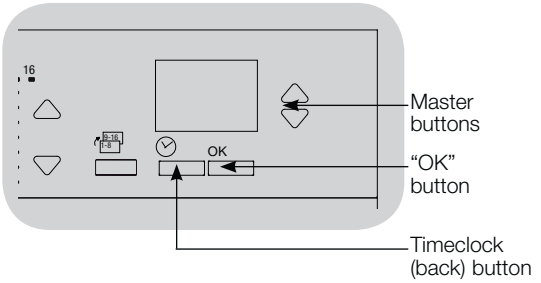


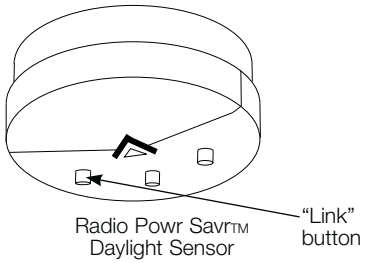
1. Make sure the wireless mode of the GRAFIK Eye® QS control unit is “Enabled”.
2. Enter programming mode.
3. Use the Master buttons to highlight “Sensor Setup” and press the “OK” button to accept.
4. Use the Master buttons to highlight “Add wireless sensors” and press the “OK” button to accept.
5. Press and hold the “Link” button on the daylight sensor until the sensor starts flashing. The info screen on the GRAFIK Eye® QS control unit will display the sensor’s serial number.
6. Press the “OK” button on the GRAFIK Eye® QS control unit. A screen will confirm that the sensor has been assigned. (To disassociate a wireless daylight sensor from the GRAFIK Eye® QS control unit, Refer to the Radio Powr Savr™ daylight sensor install guide to return the sensor to its “out-of-box” functionality. Doing so will remove its programming from the GRAFIK Eye® QS control unit.)
7. Repeat the above steps for all desired sensors.
8. Exit programming mode.

Associating wireless daylight sensors through QS Sensor Modules (QSM):

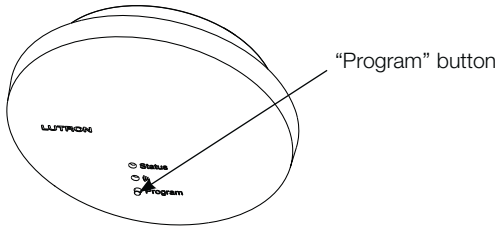
1. Press and hold the “Program” button on the QSM for 3 seconds to enter programming mode. There will be 1 audible beep and the Status LED will begin flashing. The info screen on the GRAFIK Eye® QS control unit will display that the QSM is in programming mode.
2. Press and hold the “Link” button on the daylight sensor for 6 seconds. There will be 3 audible beeps from the QSM to verify association.
3. Press and hold the “Program” button on the QSM for 3 seconds to exit programming mode.

Note: The wireless signal has a range of 30 ft (9 m) through standard construction or 60 ft (18 m) line of sight.



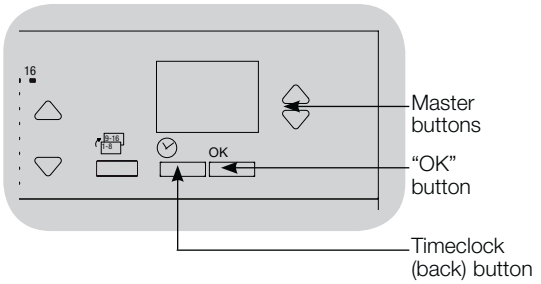


Radio Powr Savr™ Daylight Sensor



QS Sensor Module (QSM)

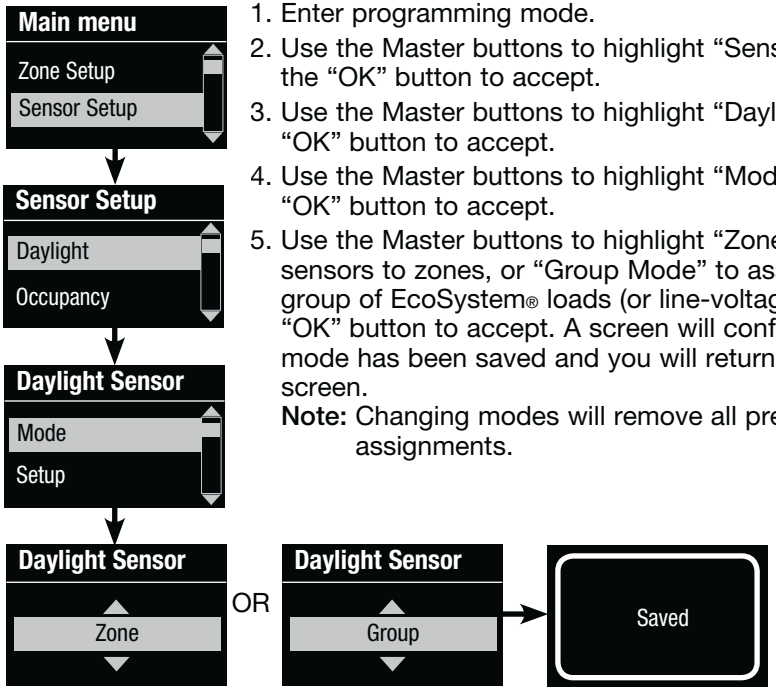
Daylight Sensor Setup (continued)



Assigning the Mode

Zone Mode (default) is useful when the GRAFIK Eye® QS control unit is controlling lights in multiple rooms or areas. Zone mode allows each zone to adjust its light level based on measured daylight levels. Each zone can be assigned to only one sensor (a sensor can be assigned to more than one zone). Each zone can have a unique target light level.

Group Mode is useful when groups or rows of lights for daylighting go across multiple zones. A group can consist of any combination of EcoSystem® loads in the system. For convenience, zones set to line-voltage load types (applies only to zones 1-3) are included in the list of available groups. Each group can be assigned to only one sensor (a sensor can be assigned to more than one group). Each group can have a unique target light level.



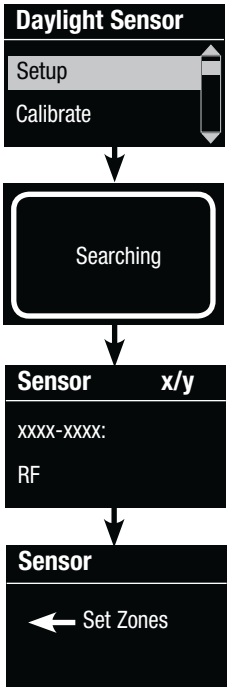
1. Enter programming mode.
2. Use the Master buttons to highlight "Sensor Setup" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Daylight" and press the "OK" button to accept.
4. Use the Master buttons to highlight "Mode" and press the "OK" button to accept.
5. Use the Master buttons to highlight "Zone Mode" to assign sensors to zones, or "Group Mode" to assign sensors to a group of EcoSystem® loads (or line-voltage zones). Press the "OK" button to accept. A screen will confirm your selected mode has been saved and you will return to the Daylight Sensor screen.

   Note: Changing modes will remove all previous daylight assignments.

Daylight Sensor Setup (continued)

Zone Mode

This step allows you to assign sensors to zones on the GRAFIK Eye® QS control unit. Each zone can be assigned to only one sensor, but sensors can be assigned to more than one zone.



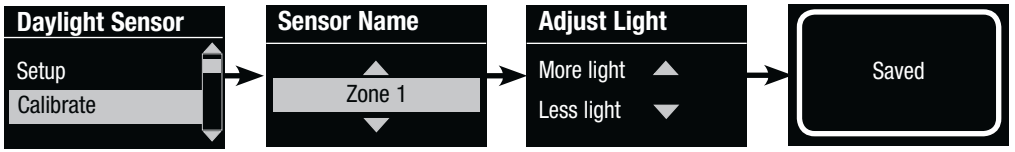
Assigning Sensors

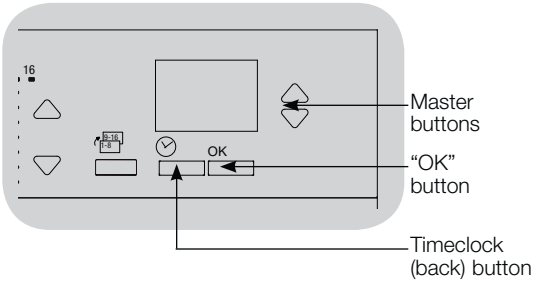
1. If not already done, associate daylight sensors and set to "Zone Mode".
2. Use the Master buttons to highlight "Setup" and press the "OK" button to accept. Available sensors will be displayed.
3. Use the Master buttons to scroll through the sensors until the one you wish to assign or unassign is highlighted, and press the "OK" button to select it.
4. Use the zone raise and lower buttons for the desired zones to assign or unassign the sensor to those zones. The zone raise button assigns the displayed sensor, and the zone lower button unassigns it. Press the Timeclock (back) button to return to the list of available sensors. Repeat for additional sensors.

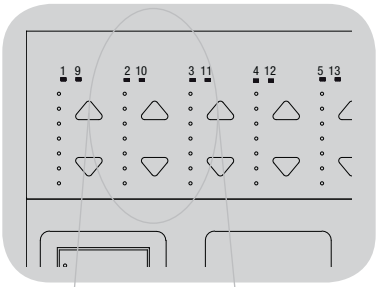
Calibrating the Sensors

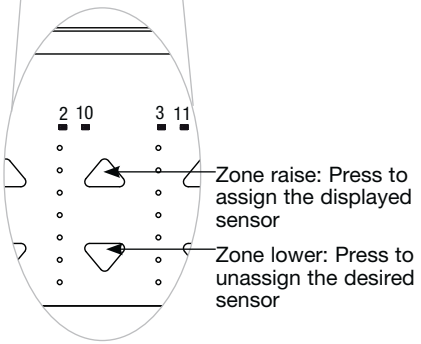
1. Put any wireless Radio Powr Savr™ daylight sensors associated with the desired zones into "Calibrate Mode": Press and hold the "Cal" button for 6 seconds until the sensor flashes.
   Note: After 5 minutes, "Calibrate Mode" will timeout, and the sensor will return to normal mode.
2. Press the Timeclock (back) button to return to the Daylight Sensor screen. Use the Master buttons to highlight "Calibrate" and press the "OK" button to accept.
3. Use the Master buttons to select the desired zone and press the "OK" button to accept.
4. Use the Master buttons to select the desired light level for the zone, and press the "OK" button to accept. Repeat for all zone levels you wish to calibrate.
5. Exit programming mode.

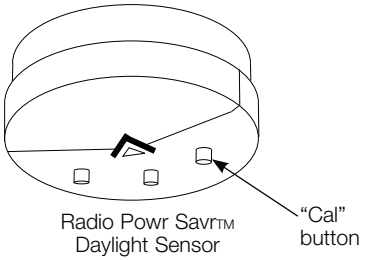
   Note: If wireless sensors are not found, verify that they are associated correctly.



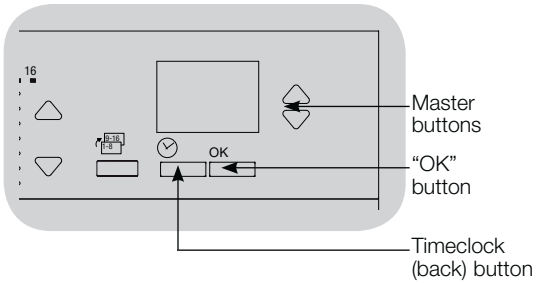






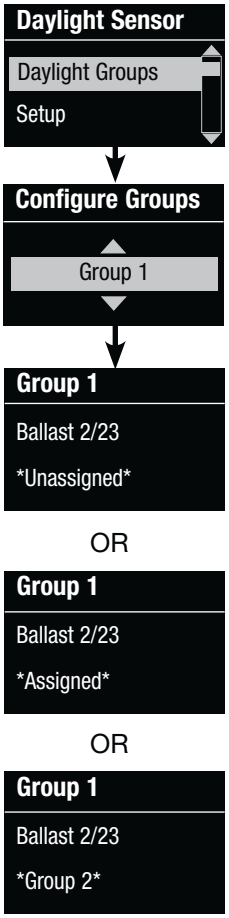


Daylight Sensor Setup (continued)



Group Mode

This step allows you to assign daylight sensors to a group of EcoSystem® loads connected to the GRAFIK Eye® QS with EcoSystem® control unit. You may also assign daylight sensors to line-voltage zones in this mode. Each group can be assigned to only one sensor, but sensors can be assigned to more than one group.



Setting Up Groups

1. If not already done, associate daylight sensors and set to "Group Mode".
2. Use the Master buttons to highlight "Daylight Groups" and press the "OK" button to accept.
3. Use the Master buttons to scroll through the list of available daylight groups. Up to 16 groups of EcoSystem® loads can be defined. Press the "OK" button to accept.
4. Use the Master buttons to scroll through the EcoSystem® devices on the link. Press the "OK" button to add or remove the selected device. The currently selected device will display its current assignment status:

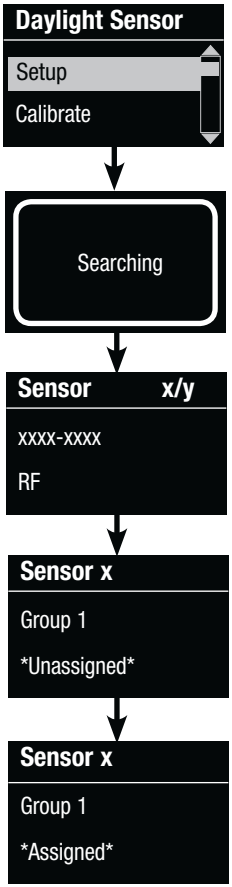
   Unassigned if it is not assigned to any group
   Assigned if it is assigned to the selected (displayed) group
   Group if it is currently assigned to another group
5. Press the Timeclock (back) button to return to the list of configurable groups, and repeat these steps to assign devices to other groups.

Note: Each EcoSystem® device can be assigned to only one group. Assigning a device already associated with another group will replace its existing programming.

(continued on next page)

Daylight Sensor Setup (continued)

Group Mode (continued)



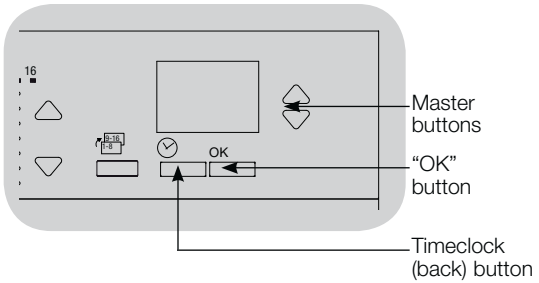
Selecting Sensors

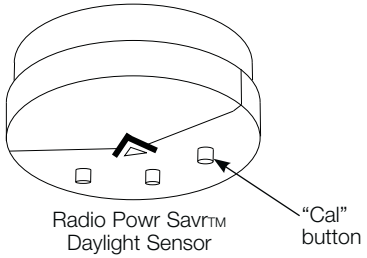
1. Press the Timeclock (back) button to return to the Daylight Sensor menu.
2. Use the Master buttons to highlight “Setup” and press the “OK” button to accept.
3. Use the Master buttons to scroll through the list of available daylight sensors. When the desired sensor is displayed, press the “OK” button to select it.
4. Use the Master buttons to scroll through the list of available groups. When the desired group is displayed, press “OK” to assign or unassign the sensor to that group. Press the Timeclock (back) button to return to the list of available sensors. Repeat for additional sensors.

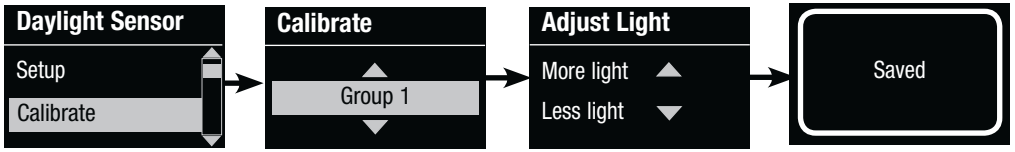
Calibrating the Sensors

1. Put any wireless Radio Powr Savr™ daylight sensors associated with the desired zones into “Calibrate Mode”: Press and hold the “Cal” button for 6 seconds until the sensor flashes.
   Note: After 5 minutes, “Calibrate Mode” will timeout, and the sensor will return to normal mode.
2. Press the Timeclock (back) button to return to the Daylight Sensor screen. Use the Master buttons to highlight “Calibrate” and press the “OK” button to accept.
3. Use the Master buttons to select the desired group and press the “OK” button to accept.
4. Use the Master buttons to select the desired light level for the group, and press the “OK” button to accept. Repeat for all group levels you wish to calibrate.
5. Exit programming mode.

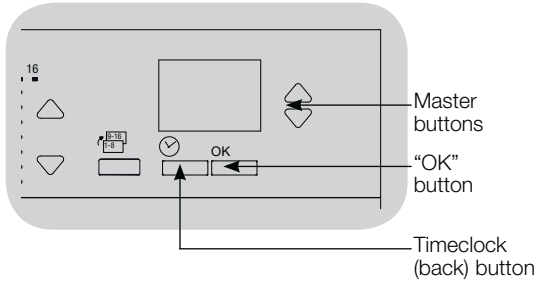
   Note: If wireless sensors are not found, verify that they are associated correctly.



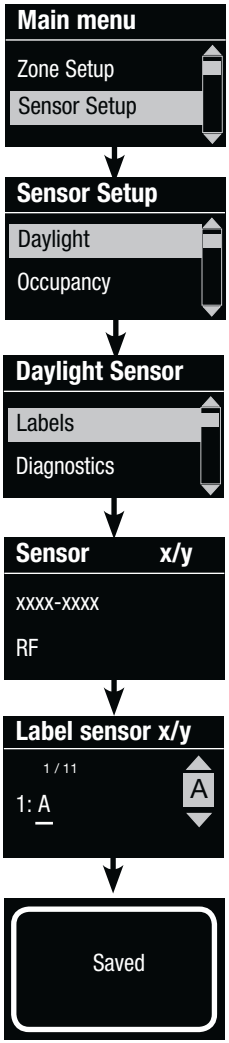




Daylight Sensor Setup (continued)



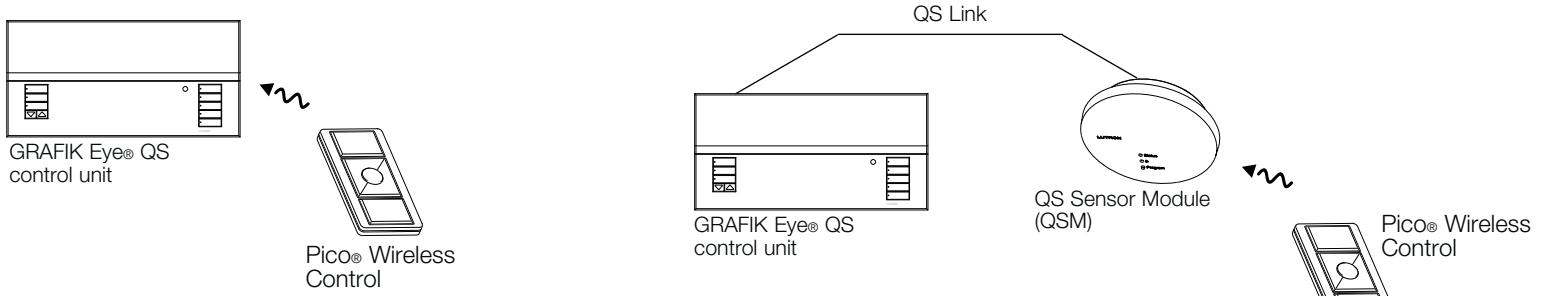
Labeling a Daylight Sensor (optional)



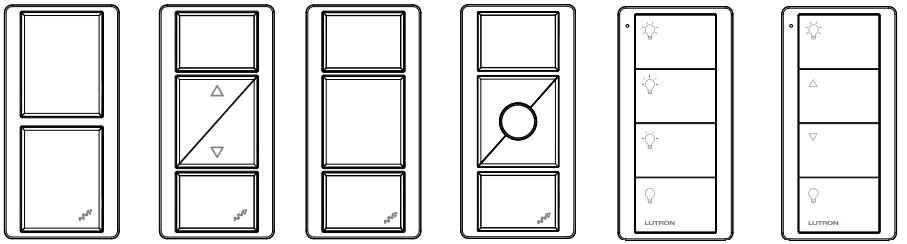
1. Enter programming mode.
2. Use the Master buttons to highlight "Sensor Setup" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Daylight" and press the "OK" button to accept.
4. Use the Master buttons to highlight "Labels" and press the "OK" button to accept.
5. Use the Master buttons to display a daylight sensor to label and press OK to select.
6. Use the Master buttons to scroll through the characters (lowercase and uppercase letters, plus numbers 0 through 9). The character you are currently changing will be underlined on the screen. Press OK to select the character you want, then repeat for all available characters. Choose a space (no character) and press OK for any remaining characters. The info screen will confirm that your name has been saved. Repeat for all desired sensors.
7. Exit programming mode.

Pico® Wireless Control Setup

Lutron® Pico® wireless controls can be associated with a GRAFIK Eye® QS system to control the light level of a specific zone or to act as a scene controller. Pico® wireless controls can be associated directly to GRAFIK Eye® QS Wireless control units, or to a wired or wireless GRAFIK Eye® QS control unit via a QS Sensor Module (QSM) wired on the QS link.



Available Pico® Wireless Control Models



2-button (2B)

2-button with raise/lower (2BRL)

3-button (3B)

3-button with raise/lower (3BRL)

4-button scene control (4B-Gxx-L31)

4-button zone control (4B-Gxx-L01)

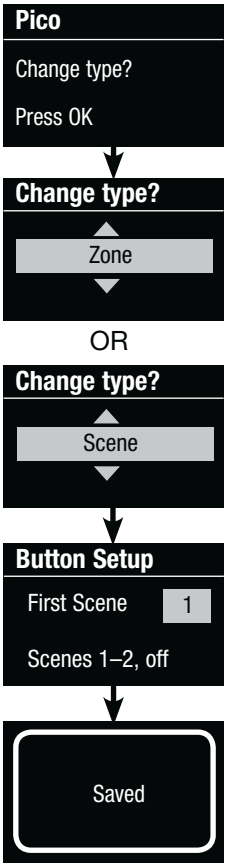
Default Functionality of the Pico® wireless control

	Zone Function[1]	Scene Function[2]
Top (On) Button	All assigned zones 100%	Scene 1
Center (Preset) Button (3B and 3BRL) or second button from top (4B-Gxx-L31)	All assigned zones at programmed preset level (Press and hold to save current levels on assigned zone as preset)	Scene 2
Raise/Lower Buttons (if available)	Vary intensity of all assigned zones	Vary intensity of all zones affected by current scene
Bottom (Off) Button	All assigned zones Off	Scene Off

[1] In zone function, user can program preset levels for assigned zones on any Pico® wireless control button. Instructions for reprogramming zone levels are provided on the next page.
[2] In scene function, the starting scene of the Pico® wireless control is selectable and zone levels in each scene can be adjusted by following the instructions in **Scene Setup**.

Pico® Wireless Control Setup (continued)

Associating the Pico® wireless control with a GRAFIK Eye® QS Wireless control unit:
(for wireless enabled GRAFIK Eye® QS control units only)



1. Make sure the wireless mode of the GRAFIK Eye® QS control unit is "Enabled".
2. On the Pico® wireless control, press and hold the top (on) and bottom (off) buttons for 3 seconds. The info screen on the GRAFIK Eye® QS control unit will display the Pico® wireless control options. Press the "OK" button on the GRAFIK Eye® QS control unit to select the desired operation type for the Pico® wireless control.
3. To assign the Pico® wireless control as a zone controller, use the Master buttons to select "Zone" and press the "OK" button to accept.

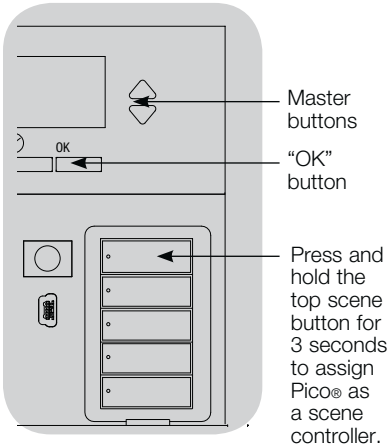
3a. Use the zone raise/lower buttons for a zone to select a desired preset level, and then press the zone raise and lower buttons simultaneously for 1 second (until the zone LEDs flash at the programmed preset level). Repeat for all zones you wish to control with the Pico® wireless control.

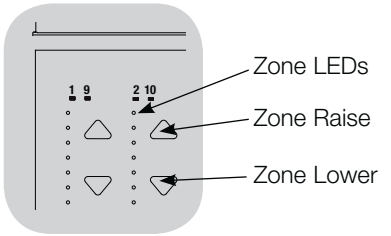
3b. To program other Pico® wireless control buttons (not including Raise/Lower), press the desired button and repeat step 3a.

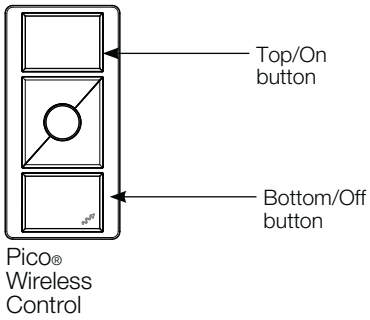
OR

4. To assign the Pico® wireless control as a scene controller, use the Master buttons to select "Scene" and press the "OK" button to accept. Use the Master buttons to select the desired starting scene for the PICO and press the "OK" button to accept. Press and hold the top scene button on the GRAFIK Eye® QS control unit for 3 seconds (until the scene LEDs flash).
5. On the Pico® wireless control, press and hold the top and bottom buttons for 3 seconds until the LEDs on the GRAFIK Eye® QS control unit stop flashing.

Note: The wireless signal has a range of 30 ft (9 m) through standard construction or 60 ft (18 m) line of sight.

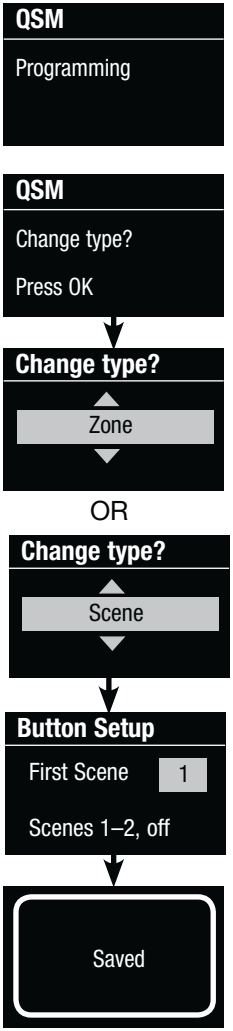






Pico® Wireless Control Setup (continued)

Associating the Pico® wireless control through a QS Sensor Module (QSM):
(for wired or wireless enabled GRAFIK Eye® QS control units)



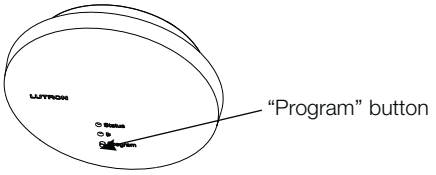
1. Press and hold the “Program” button on the QSM for 3 seconds to enter programming mode. There will be 1 audible beep and the Status LED will begin flashing. The info screen on the GRAFIK Eye® QS control unit will display that the QSM is in programming mode.
2. Press and hold the bottom button on the Pico® wireless control for 6 seconds. There will be 3 audible beeps from the QSM to verify association.
3. Press and hold the “Program” button on the QSM for 3 seconds to exit programming mode.
4. On the Pico® wireless control, press and hold the top (on) and bottom (off) buttons for 3 seconds, until the LEDs on the GRAFIK Eye® QS control unit begin to flash and the QSM beeps 1 time. Press the “OK” button on the GRAFIK Eye® QS control unit to select the desired operation mode for the Pico® wireless control.
5. To assign the Pico® wireless control as a zone controller, use the Master buttons to select “Zone” and press the “OK” button to accept.

5a. Use the zone raise/lower buttons for a zone to select a desired preset level, and then press the zone raise and lower buttons simultaneously for 1 second (until the zone LEDs flash at the programmed preset level). Repeat for all zones you wish to control with the Pico® wireless control.

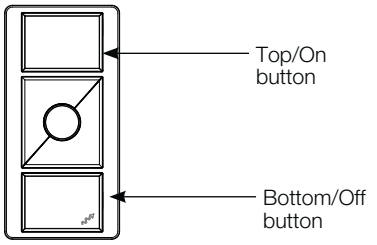
5b. To program other Pico® wireless control buttons (not including Raise/Lower), press the desired button and repeat step 5a.

OR

6. To assign the Pico® wireless control as a scene controller, use the Master buttons to select “Scene” and press the “OK” button to accept. Use the Master buttons to select the desired starting scene for the PICO and press the “OK” button to accept. Press and hold the top scene button on the GRAFIK Eye® QS control unit for 3 seconds (until the scene LEDs flash).
7. On the Pico® wireless control, press and hold the top and bottom buttons for 3 seconds until the LEDs on the GRAFIK Eye® control unit stop flashing and the QSM beeps 1 time.



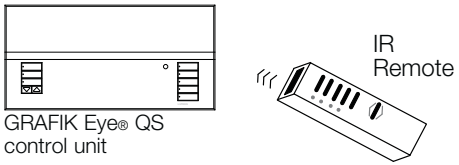
QS Sensor Module (QSM)



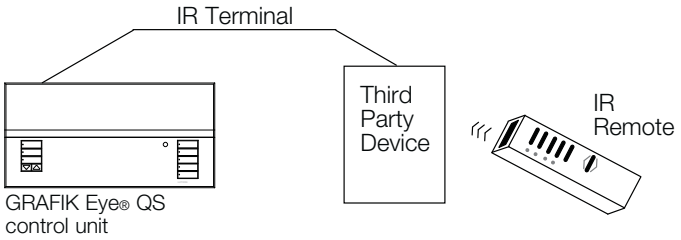
Pico® Wireless Control

IR Setup

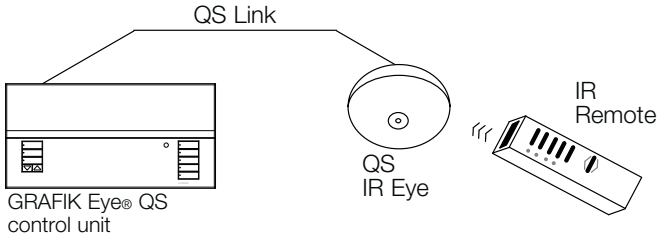
An infrared (IR) remote can directly control the GRAFIK Eye® QS control unit through the infrared receiver on the front of the GRAFIK Eye® QS control unit.

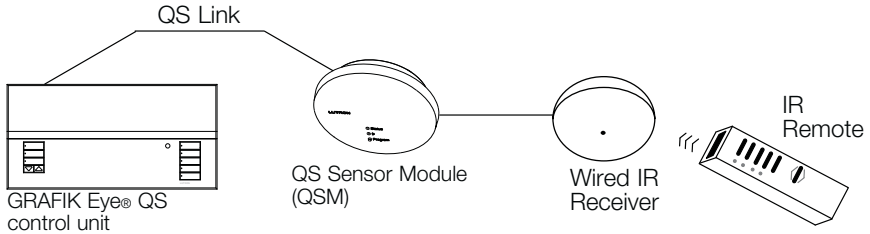


An externally powered IR repeater can also be connected to the IR terminals on the GRAFIK Eye® QS control unit to obtain IR remote control. This is useful for integrating third party devices with the GRAFIK Eye® QS control unit (e.g. home theater applications.) For a complete list of the GRAFIK Eye® QS control unit's IR programming commands, please see www.lutron.com/qs.



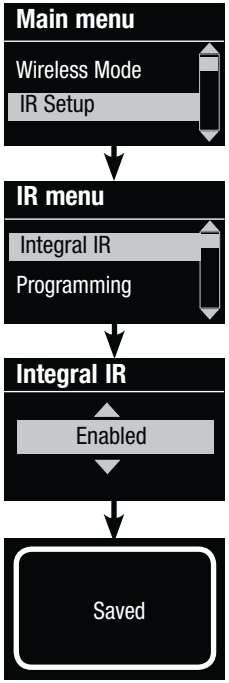
An IR remote can also indirectly control the GRAFIK Eye® QS control unit through the QS IR Eye or a Lutron® IR receiver wired to a QS Sensor Module (QSM) to control the light level of a specific zone or to act as a scene controller. The QS IR Eye and IR receivers wired to the QSM must first be associated with the GRAFIK Eye® QS control unit before they will be recognized by a GRAFIK Eye® QS system.





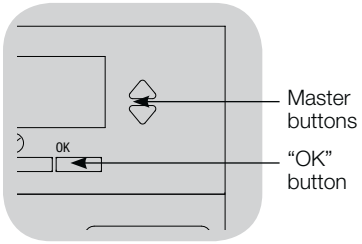
IR Setup (continued)

Enabling/disabling the IR receiver on the GRAFIK Eye® QS control unit:



Note: These steps will also enable or disable the IR terminals on the GRAFIK Eye® QS control unit.

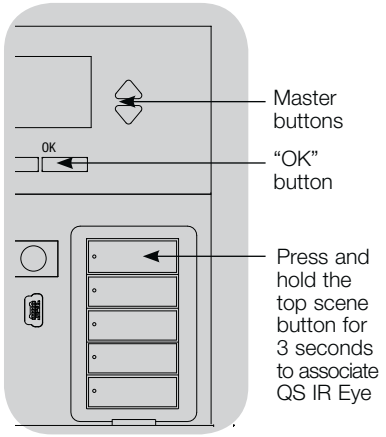
1. Enter programming mode.
2. Use the Master buttons to highlight “IR Setup” and press the “OK” button to accept
3. Use the Master buttons to highlight “Integral IR” and press the “OK” button to accept.
4. Use the Master buttons to highlight either “Enabled” or “Disabled” and press the “OK” button to accept. The info screen will confirm that your settings have been saved.
5. Exit programming mode.



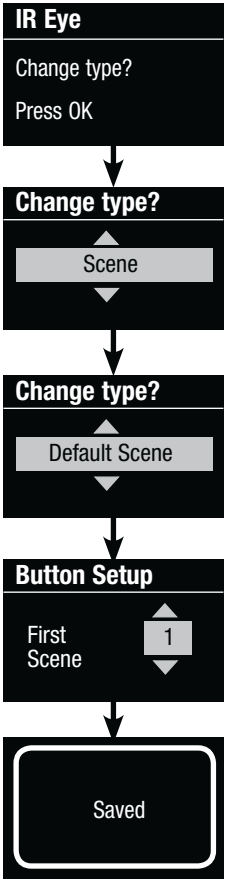
IR Setup (continued)

The QS IR Eye offers advanced programmable scene control depending on the IR remote being used. Use the chart below to select the appropriate control mode on the GRAFIK Eye® QS control unit:

IR Remote	Control Mode
GRX-IT	4 Buttons & Off or 5 Buttons
GRX-8IT	8 Buttons & Off
MIR-ITFS	Favorite or Zone control
C-FLRC	Favorite or Zone control
Third Party IR Remote	Default

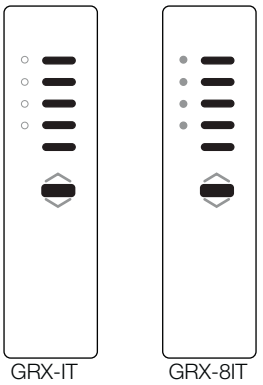


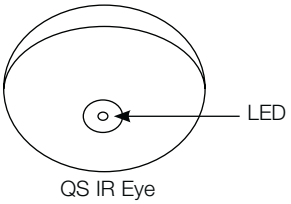
Associating the QS IR Eye with a GRAFIK Eye® QS control unit:



Note: For use with Lutron® remote models GRX-IT and GRX-8IT, or with third-party IR remotes.

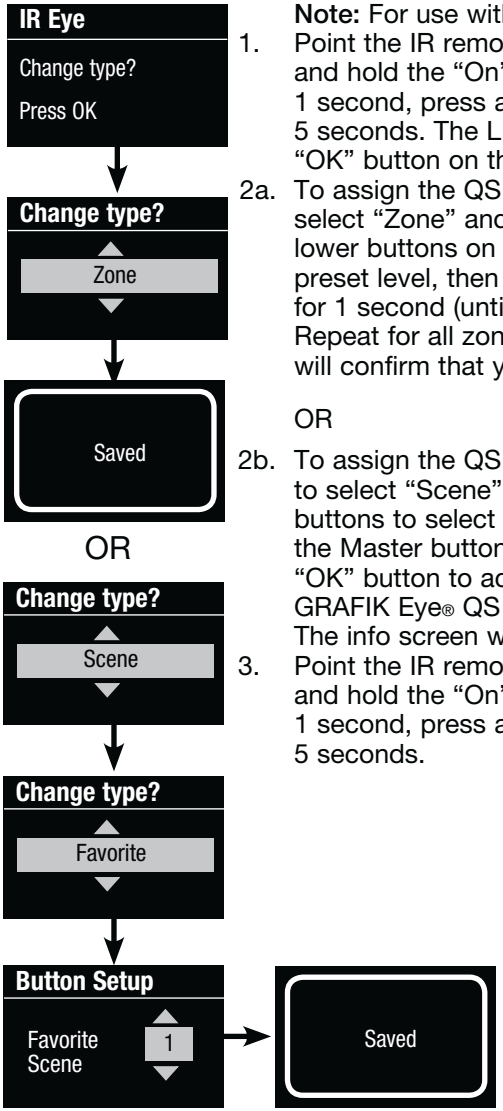
1. Point the IR remote at the QS IR Eye. To enter programming mode, press and hold the top and bottom buttons on the remote for 3 seconds until the LED on the QS IR Eye begins to flash slowly.
2. Press and hold the top scene button on the GRAFIK Eye® QS control unit for 3 seconds. The scene LEDs will flash to confirm that the QS IR Eye has been associated. Press the "OK" button to continue.
3. Use the Master buttons to select "Scene" and press the "OK" button to accept.
4. Use the Master buttons to select one of the scene control types (listed below) to correspond to the IR remote that will be used with the QS IR Eye. Press the "OK" button to accept.
   If "Default" was not selected, the info screen will prompt you to select which scene will correspond to the top button of the IR remote. Use the Master buttons to select the desired scene, and press the "OK" button to accept. The info screen will confirm that your settings have been saved.
   Note: The "Default" scene control type will activate whichever scene command is transmitted to the GRAFIK Eye® QS control unit.
5. Point the IR remote at the QS IR Eye. To exit programming mode, press and hold the top and bottom buttons on the remote for 3 seconds.





IR Setup (continued)

Associating the QS IR Eye with a GRAFIK Eye® QS control unit (continued):



Note: For use with Lutron® remote models MIR-ITFS and C-FLRC.

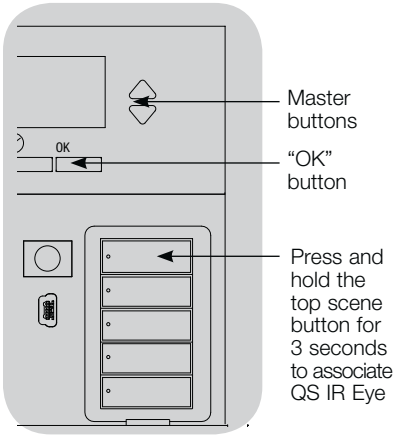
1. Point the IR remote at the QS IR Eye. To enter programming mode, press and hold the "On" (top) button on the remote for 5 seconds, then, within 1 second, press and hold the "Off" (bottom) button on the remote for 5 seconds. The LED on the QS IR Eye will begin to flash slowly. Press the "OK" button on the GRAFIK Eye® QS control unit to continue.

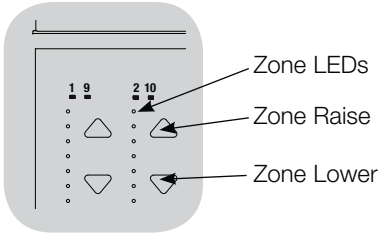
2a. To assign the QS IR Eye as a zone controller, use the Master buttons to select "Zone" and press the "OK" button to accept. Use the zone raise/lower buttons on the GRAFIK Eye® QS control unit to select a desired preset level, then press the zone raise and lower buttons simultaneously for 1 second (until the zone LEDs flash at the programmed preset level). Repeat for all zones you wish to assign to the QS IR Eye. The info screen will confirm that your settings have been saved.

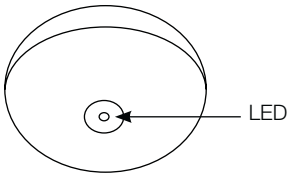
OR

2b. To assign the QS IR Eye as a scene controller, use the Master buttons to select "Scene" and press the "OK" button to accept. Use the Master buttons to select "Favorite", and press the "OK" button to accept. Use the Master buttons to select your desired favorite scene, and press the "OK" button to accept. Press and hold the top scene button on the GRAFIK Eye® QS control unit for 3 seconds (until the scene LEDs flash). The info screen will confirm that your settings have been saved.

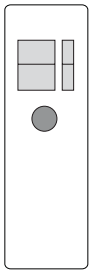
3. Point the IR remote at the QS IR Eye. To exit programming mode, press and hold the "On" (top) button on the remote for 5 seconds, then, within 1 second, press and hold the "Off" (bottom) button on the remote for 5 seconds.







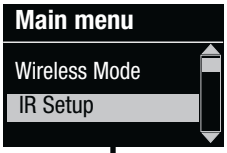
QS IR Eye

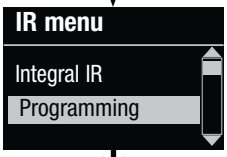


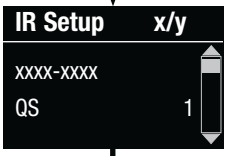
MIR-ITFS
C-FLRC

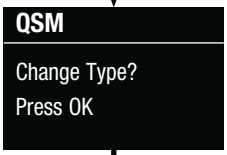
IR Setup (continued)

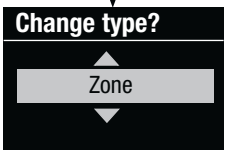
Associating IR receivers through a QS Sensor Module (QSM):

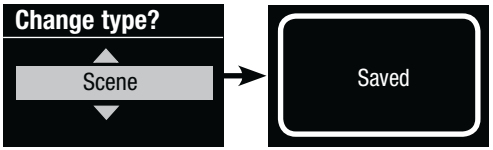












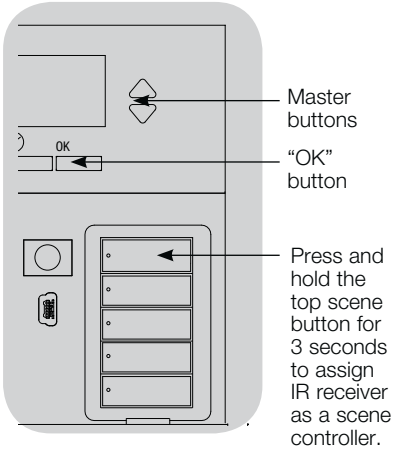
1. Upon power up, the QSM will automatically detect and configure wired IR receivers after a valid signal is received. Use an IR remote to send a signal to all connected receivers in the system.
2. Enter programming mode on the GRAFIK Eye® QS control unit.
3. Use the Master buttons to highlight “IR Setup” and press the “OK” button to accept
4. Use the Master buttons to highlight “Programming” and press the “OK” button to accept. The info screen will display “Searching” while the unit detects available infrared receivers.
5. Use the Master buttons to scroll through the list of available infrared receivers (the displayed IR receiver will flash). When the desired IR receiver is displayed, press the “OK” button to select it. Press the “OK” button again to continue.

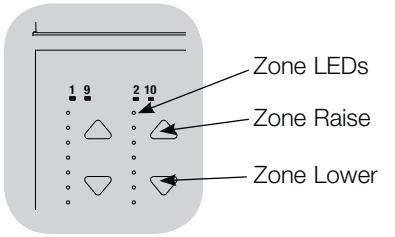
6a. To assign the IR receiver as a zone controller, use the Master buttons to select “Zone” and press the “OK” button to accept. Use the zone raise/lower buttons for a zone to select a desired preset level, then press the zone raise and lower buttons simultaneously for 1 second (until the zone LEDs flash at the programmed preset level). Repeat for all zones you wish to control with the IR receiver.

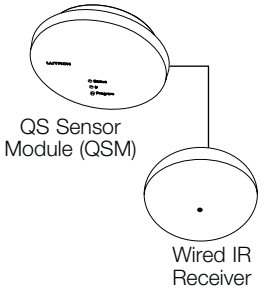
OR

6b. To assign the IR receiver as a scene controller, use the Master buttons to select “Scene” and press the “OK” button to accept. Press and hold the top scene button on the GRAFIK Eye® QS control unit for 3 seconds (until the scene LEDs flash).

7. Press the Timeclock (back) button twice to return to the list of available IR receivers and repeat as needed.
8. Exit programming mode on the GRAFIK Eye® QS control unit.







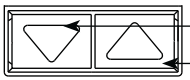
Associating Sivoia® QS Shades/Drapes and GRAFIK Eye® QS Control Units

When a GRAFIK Eye® QS system consists of Sivoia® QS shades (or drapes) and a GRAFIK Eye® QS with one or more shade button groups, you can associate the shade button groups on the control unit with the shades so the shade buttons can directly control the shades.

For Sivoia® QS Shades wired directly to the GRAFIK Eye® QS control unit:

To associate or disassociate shades with a shade button group:

1. On the GRAFIK Eye® QS control unit shade button group you wish to assign shades to, enter shade programming mode: Press and hold the top (open) and bottom (close) buttons simultaneously for 3 seconds. The top and bottom LEDs will flash. Shades that are unassigned will move to up (open), and shades that are assigned will move to close (down).
2. Tap the top (open) button to start assigning.
3. Tap the top (open) button repeatedly to cycle forward through the addresses; tap the bottom (close) button to cycle backward.
4. Press the shade group **lower** button to associate the shade.
   Press the shade group **raise** button to **disassociate** the shade.



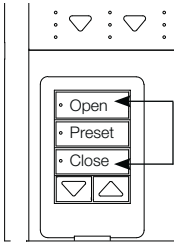
Lower button: Press to associate
Raise button: Press to disassociate

5. Exit shade programming mode: Press and hold the top (open) and bottom (close) buttons simultaneously for 3 seconds. The top and bottom LEDs will stop flashing.

For Wireless Sivoia® QS Shades:

To associate shades with a shade button group:

1. Make sure the wireless mode of the GRAFIK Eye® QS control unit is “Enabled”.
2. On the GRAFIK Eye® QS control unit shade button group you wish to assign shades to, enter shade programming mode: Press and hold the top (open) and bottom (close) buttons simultaneously for 3 seconds. The top and bottom LEDs will flash.
3. The LEDs on the electronic drive unit (EDU) and the wireless antenna of unassociated shades/drapes will blink slowly. On the shade/drape that you wish to associate with the shade button group, tap any button; the LED on the EDU will blink rapidly to indicate the shade is now associated with the shade button group on the GRAFIK Eye® QS control unit.
4. Repeat step 2 to associate additional shades/drapes to that shade button group.
5. Exit shade programming mode: Press and hold the top (open) and bottom (close) buttons simultaneously for 3 seconds. The top and bottom LEDs will stop flashing.
6. Repeat steps 1 through 5 for additional shade button groups, as applicable.

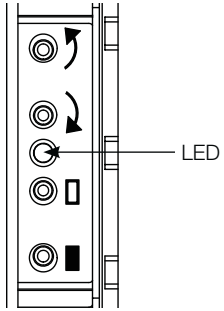


Press and hold the top (open) and bottom (close) buttons on the GRAFIK Eye® QS control unit shade button group to enter or exit shade programming mode.

To disassociate shades with a shade button group:

Repeat, in the same order, the steps above for associating shades/drapes. When in shade programming mode, tap any button on the electronic drive unit (EDU) of the shades/drapes that you wish to disassociate from the shade button group; the green LEDs on the EDU and antenna will blink slowly to indicate the shade is disassociated from the shade button group on the GRAFIK Eye® QS control unit.

Note: The wireless signal has a range of 30 ft (9 m) through standard construction or 60 ft (18 m) line of sight.



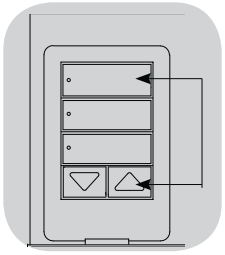
Sivoia® QS Wireless shade/drape EDU

Adjusting Shade Settings (for Wired and Wireless Sivoia® QS Shades/Drapes)

Setting Limits
(for wired shades/drapes only)

Note: Entering "Limit Setup" mode may cause shades to move approximately 8 in (200 mm) up or down. **Be sure that each shade is positioned so that the fabric can safely move 8 in (200 mm) up or down before entering "Limit Setup" mode.**

1. On any shade button group, press and hold simultaneously the top and raise buttons. The LEDs next to the top and bottom buttons will cycle.

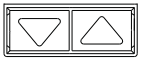


At any time while in "Limit Setup" mode, you can move all shades together to their current open limit by double-tapping the top button, or to their current close limit by double-tapping the bottom button.

Note: Shade/drape electronic drive units (EDUs) must first be associated to a shade button group before its limits can be adjusted.

2. Select the EDU you want to adjust using the top button on the shade button group. Each time you press and release the top button, a different EDU that is assigned to that shade button group will open and close in an 8 in (200 mm) range to indicate it is selected.

   Tap the top button until the EDU for the shade you wish to adjust moves. (You can also use the bottom button, which moves through the assigned EDUs in the opposite order.)
3. Adjust the currently selected EDU to the desired level for the open limit (the maximum the shade is allowed to open) using the raise and lower buttons.



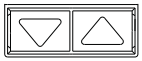
4. Press and hold the top button on the shade button group for 5 seconds to store the current position as the open limit. The LED next to the top button will flash quickly for 2 seconds.
5. Adjust the currently selected EDU to the desired level for the close limit (the maximum the shade is allowed to close) using the raise and lower buttons.
6. Press and hold the bottom button on the shade button group for 5 seconds to store the current position as the close limit. The LED next to the bottom button will flash quickly for 2 seconds.
7. Repeat steps 2 through 6 to set the open and close limits for each shade assigned to the shade button group.
8. Press and hold simultaneously the top and raise buttons on the shade button group to exit "Limit Setup" mode.

   Note: Remote limits cannot be set for Sivoia® QS wireless shades through the GRAFIK Eye® QS control unit. Limits must be set manually at the wireless shade EDU. (See the Sivoia® QS wireless shade instructions.)

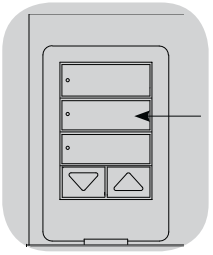
Adjusting Shade Settings (for Wired and Wireless Sivoia® QS Shades/Drapes) (continued)

Preset Adjustment: Simple Method

1. Use the raise and lower buttons on the shade button group to set all electronic drive units (EDUs) of the shades to the desired preset levels.



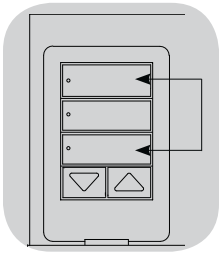
2. Press and hold the middle button on the shade button group for 5 seconds to save the EDU preset positions. The LED next to the button will flash and then light continuously, indicating the preset has been stored.



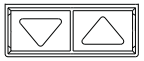
Note: Once EDU presets have been assigned to buttons on a shade button group, those presets are accessible for an EDU only using the shade button group it is assigned to, and a shade button group can access preset levels only for those EDUs assigned to it.

Preset Adjustment: Advanced Method

- The advanced method for adjusting presets is needed only if you wish to have the shades assigned to the shade button group set at different positions in the preset. If, however, you wish all the shades in the group to be lined up with one another in the preset, you should use the Simple Method at left.
- Entering "Assignment" mode will cause the shades to move between their open and close limits. **Verify that the open and close limits have been set correctly.**



1. On the shade button group whose preset you wish to adjust, press and hold simultaneously the top and bottom buttons. The LEDs next to the buttons will flash. EDUs for the assigned shades will move to their closed limits, and EDUs for unassigned shades will move to their open limits.
2. Press and release the middle button on that shade button group. The adjacent LED will blink rapidly. EDUs for assigned shades will automatically move to their current preset settings.
3. Use the raise and lower buttons to move all EDUs for assigned shades together to the desired preset setting.

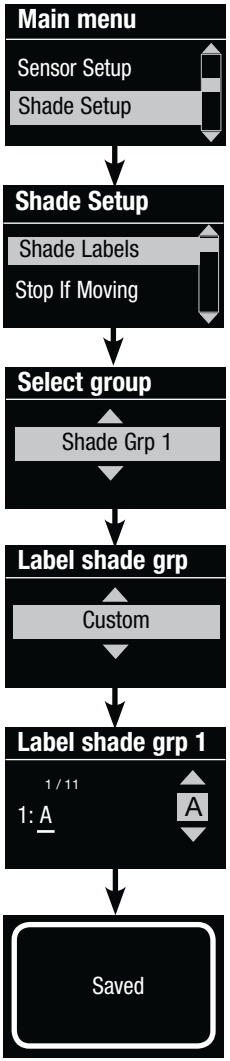


4. To move an EDU individually to its desired preset setting, select the EDU using the top button on the shade button group. Each time you press and release the top button, a different EDU that is assigned to that shade button group will open and close in an 8 in (200 mm) range. Press repeatedly until the EDU for the shade you wish to adjust moves. Adjust that EDU to the desired height using the raise and lower buttons.

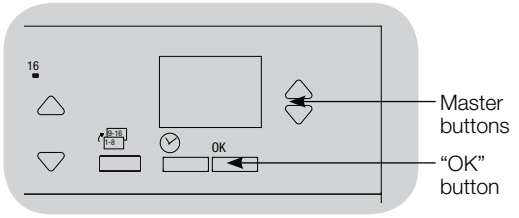
   Repeat this step for all assigned EDUs.
5. Once you are satisfied that all the assigned EDUs are set to the positions you want to assign as the preset, press and hold the middle button on the shade button group for 5 seconds. The preset will be saved.
6. Press and hold simultaneously the top and bottom buttons on the shade button group for 5 seconds to exit to normal mode. The LEDs next to the buttons will stop flashing.

Adjusting Shade Settings (for Wired Window Treatments) (continued)

Naming a Group of Shades



1. Enter programming mode.
2. Use the Master buttons to highlight “Shade Setup” and press the “OK” button to accept.*
3. Use the Master buttons to highlight “Shade Labels” and press the “OK” button to accept.
4. Use the Master buttons to highlight your desired shade group. Press the “OK” button to accept.
5. Use the Master buttons to highlight “Custom” and press the “OK” button to accept.
6. Use the Master buttons to scroll through the characters (lowercase and uppercase letters, plus numbers 0 through 9). The character you are currently changing will be underlined on the screen. Press OK to select the character you want, then repeat for all available characters. Choose a space (no character) and press OK for any remaining characters. Press the “OK” button to accept.
7. The info screen will confirm that your name has been saved.
8. Exit programming mode.



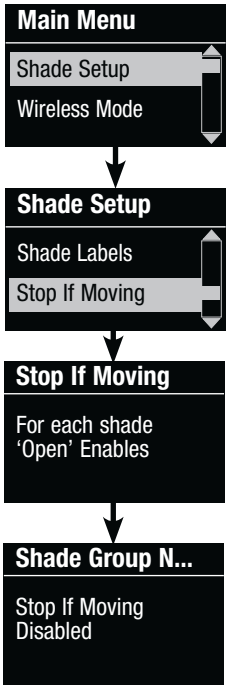
* Applicable only to units that ship with firmware version 9.003 and higher. For previous versions, skip step 2 and proceed to step 3.

Adjusting Shade Settings (for Wired Window Treatments) (continued)

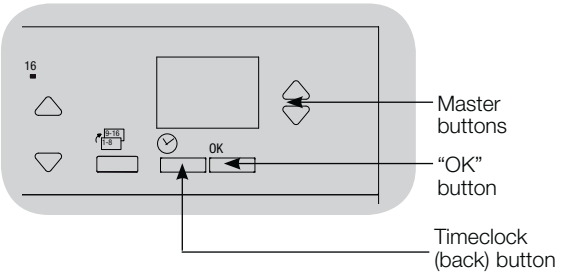
Enable/Disable "Stop If Moving" Functionality (software revision 9.003 or higher)

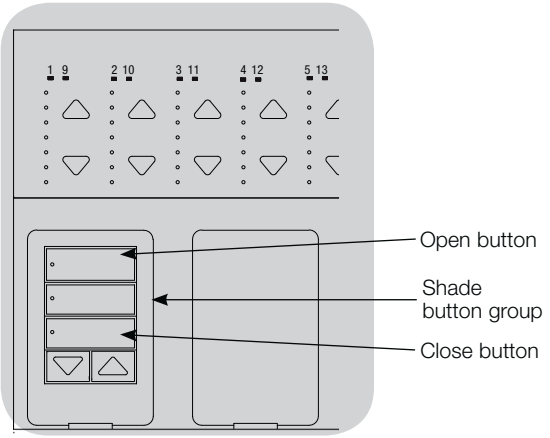
If the GRAFIK Eye® QS control unit can be configured to enable/disable the "Stop If Moving" functionality: pressing shade column button stops the shade if it is already moving, otherwise the shade is sent to the programmed level.

Follow the steps below to disable the "Stop If Moving" functionality (it is enabled by default):



1. Enter programming mode.
2. Use the Master buttons to highlight "Shade Setup" and press the "OK" button to accept.
3. In the Shade Setup menu, use the master buttons to highlight "Stop If Moving" and press OK to accept.
4. For the desired shade column (on bottom left of QSG unit), press the "Open" button to enable "Stop If Moving" for that column or press the "Close" button to disable the "Stop If Moving" feature. The display screen will change momentarily to indicate if "Stop If Moving" is enabled or disabled for the selected shade column.
5. LEDs on the "Open" and "Close" buttons will indicate the current selection for the shade column.
6. Once the process is complete, hit the back button to go back to the main menu.

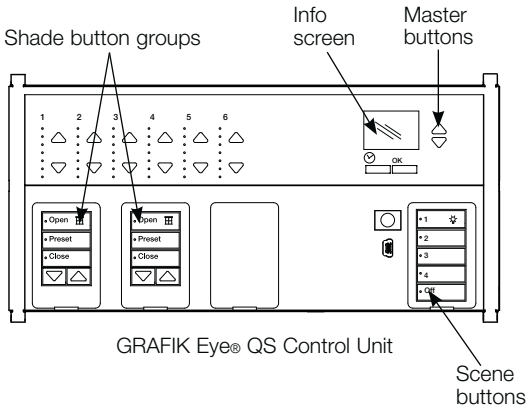




Associating Sivoia® QS Triathlon® Shades with GRAFIK Eye® QS Control Unit

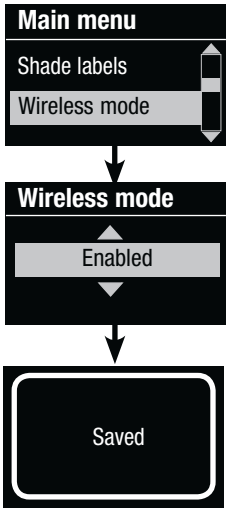
Confirm Wireless Mode Enabled

1. Enter Programming mode: Press and hold the top and bottom Scene buttons simultaneously for 3 seconds. The LEDs in the Scene buttons will scroll from top to bottom, confirming the control unit is in Programming mode, and the Info screen will display the Main menu.



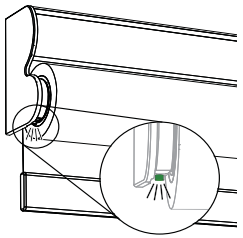
GRAFIK Eye® QS Control Unit

2. Use the Master buttons to highlight “Wireless Mode” in the Main menu, and press the OK button to accept.
3. Use the Master buttons to highlight “Enabled” and press the OK button to accept.
4. The Info screen will display a confirming “Saved” message.
5. Exit Programming mode: Press and hold the top and bottom Scene buttons simultaneously for 3 seconds. The Info screen will go to Scene 1.

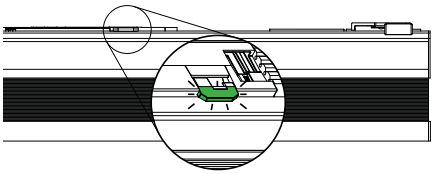


Associate Shades

1. Tap the Shade button on the shade to assign. The Shade button LED will turn on solid green, and the shade will wait in this mode for 30 seconds.



Roller Shade Button

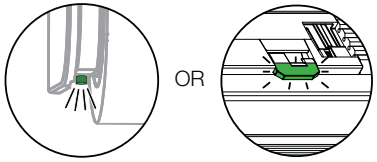


Honeycomb Shade Button

2. Choose a Shade button group on the GRAFIK Eye® QS control unit. Press and hold the Close button in that group for 6 seconds. All LEDs in the Shade button group and the Shade button LED will flash then turn off.

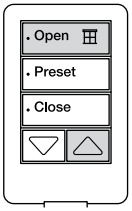
Setting Upper and Lower Limits of a Sivoia® QS Triathlon® Shade with GRAFIK Eye® QS Control Unit

1. Verify that the shade is associated with the intended Shade button group of the GRAFIK Eye® QS control unit.
2. Tap the Shade button on the Sivoia® QS Triathlon® shade. The Shade button LED will turn on solid green, and the shade will wait in this mode for 30 seconds.

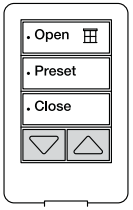


Tap shade button

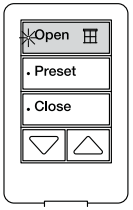
3. In the GRAFIK Eye® QS Shade button group associated with the shade, simultaneously press and hold the Open and Raise buttons for 5 seconds.



4. Use the Raise/Lower buttons to position the shade at the desired level for the upper limit (the maximum the shade is allowed to open).

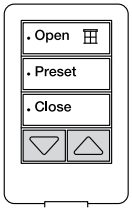


5. Press and hold the Open button for 5 seconds to store the current position as the upper limit. The Open button LED will flash quickly for 2 seconds

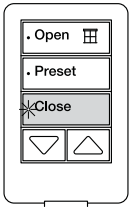


6. Set the lower limit: Repeat steps 2 and 3 to enter Limit Set mode.

7. Use the Raise/Lower buttons to position the shade at the desired level for the lower limit (the maximum the shade is allowed to close).



8. Press and hold the Close button for 5 seconds to store the current position as the lower limit. The Close button LED will flash quickly for 2 seconds.



9. Repeat steps 1 through 8 to set the upper and lower limits for each Sivoia® QS Triathlon® shade.

Associating Multiple GRAFIK Eye® QS Control Units

When there is more than one GRAFIK Eye® QS control unit in a system, it is often convenient to associate them so that certain functions carry over to other associated GRAFIK Eye® QS control units.

- **Wired units:** When first wired on the QS link, all unprogrammed GRAFIK Eye® QS wired control units will replicate scene activations and Master button presses by other control units on the link. Associating or disassociating control units determines which units on the QS link will "talk" or "listen" to each other. Control units associated on a wired QS link will also replicate timeclock and contact closure settings.
- **Wireless units:** GRAFIK Eye® QS Wireless control units will not automatically replicate scene activations or Master button presses, and must be programmed to do so. (Associating two wireless control units will not pass timeclock and contact closure settings to each other.) When associating multiple wireless control units, make sure the wireless mode of both units is set to "Enabled."

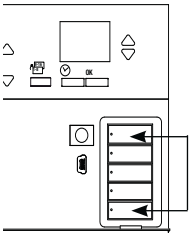
  Note: The wireless signal has a range of 30 ft (9 m) through standard construction or 60 ft (18 m) line of sight.

To <u>associate</u> two GRAFIK Eye® QS control units:

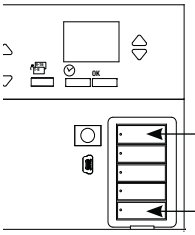
1. Begin with the GRAFIK Eye® QS control unit that will "talk" (button presses will be replicated on the other control unit; in the drawing below this is GRAFIK Eye® QS control unit A). Press and hold the top and bottom scene buttons until the LEDs flash (about 3 seconds).
2. Continue with the GRAFIK Eye® QS control unit that will "listen" (replicate button presses on the other control unit; in the drawing below this is GRAFIK Eye® QS control unit B). Press and hold the top scene button until the LEDs flash (about 3 seconds).
3. Return to the GRAFIK Eye® QS control unit that will "talk" (A). Press and hold the top and bottom scene buttons until the LEDs stop flashing (about 3 seconds).
4. Repeating the process in reverse allows GRAFIK Eye® QS control unit A to also "listen" to GRAFIK Eye® QS control unit B, so that both units will follow each other.

To <u>disassociate</u> two GRAFIK Eye® QS control units:

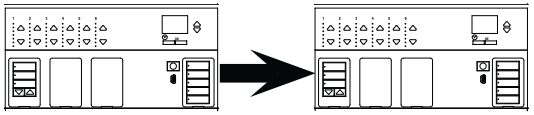
Simply repeat the association steps, in the same order; press and hold the bottom scene button on B to disassociate.



On the unit that will "talk", press and hold the top and bottom scene buttons for 3 seconds to begin or end association or disassociation with the unit that will "listen".



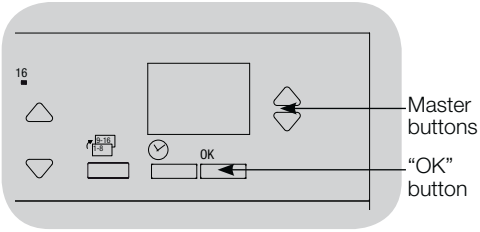
On the unit that will "listen", press and hold the top scene button for 3 seconds to associate, or press and hold the bottom scene button for 3 seconds to disassociate with the unit that will "talk".



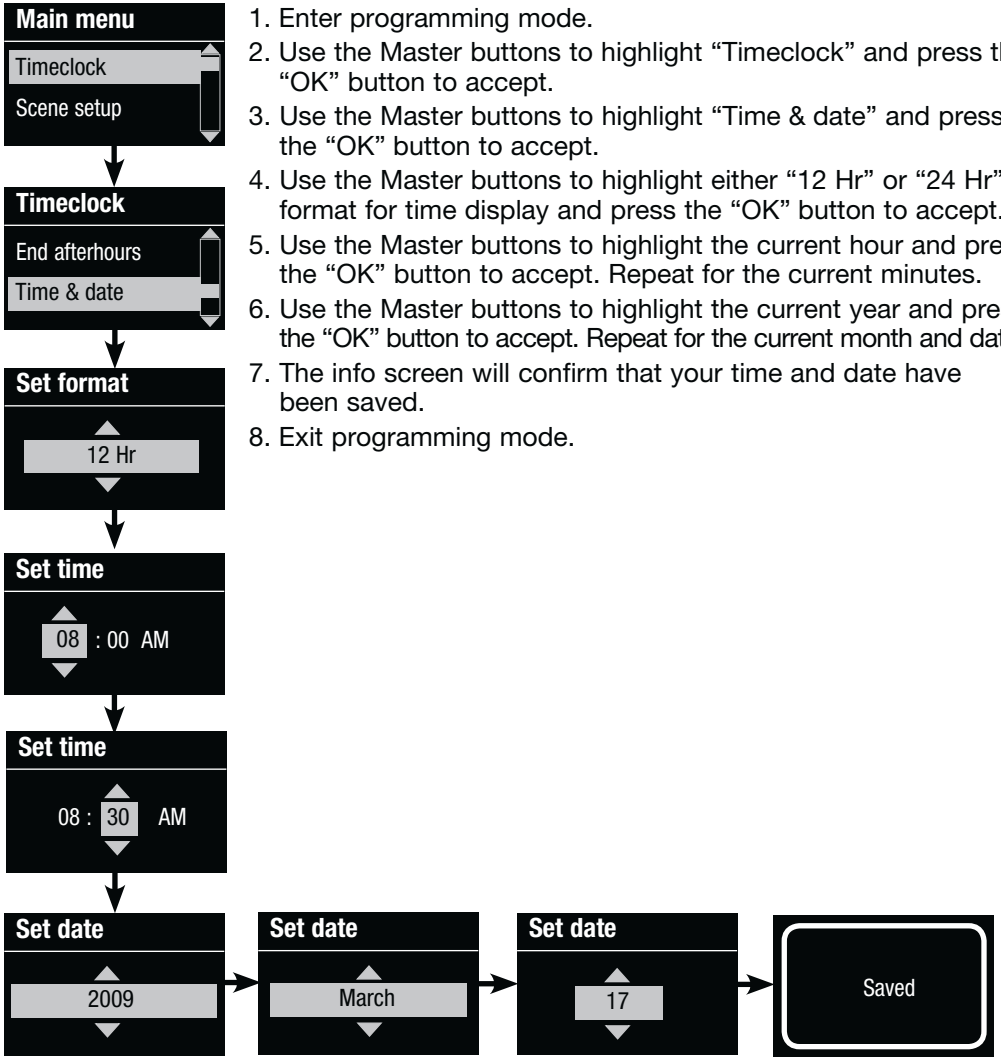
GRAFIK Eye® QS control unit A "Talks" to GRAFIK Eye® QS control unit B; scene activation and Master button presses activated on control unit A are replicated on control unit B.

GRAFIK Eye® QS control unit B "Listens" to GRAFIK Eye® QS control unit A; control unit B replicates scene activations and Master button presses on control unit A.

Timeclock Operation

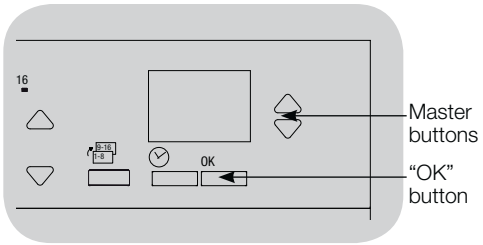


Setting Time and Date

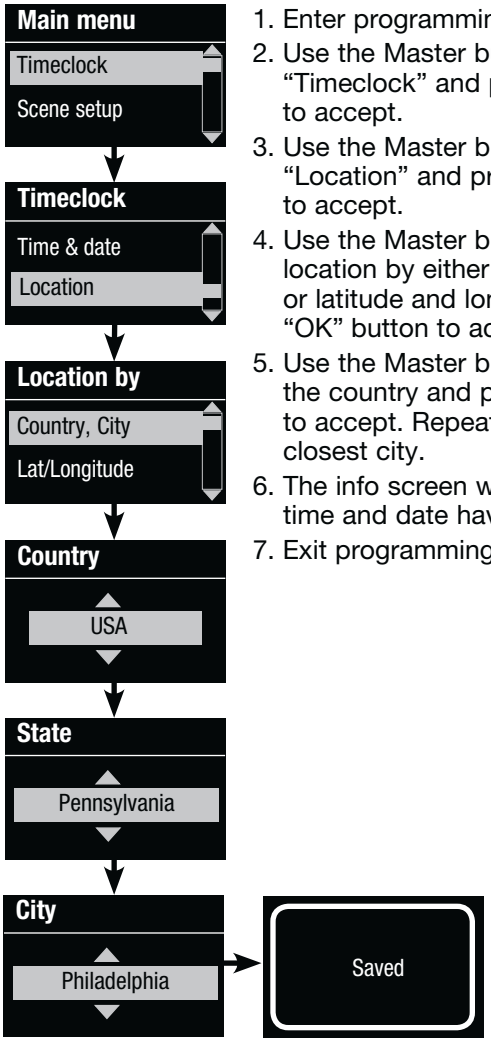


1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Time & date" and press the "OK" button to accept.
4. Use the Master buttons to highlight either "12 Hr" or "24 Hr" format for time display and press the "OK" button to accept.
5. Use the Master buttons to highlight the current hour and press the "OK" button to accept. Repeat for the current minutes.
6. Use the Master buttons to highlight the current year and press the "OK" button to accept. Repeat for the current month and date.
7. The info screen will confirm that your time and date have been saved.
8. Exit programming mode.

Timeclock Operation (continued)

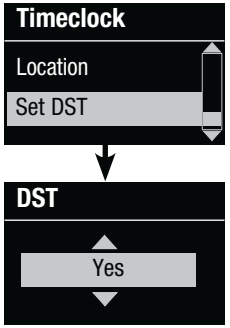


Setting Location



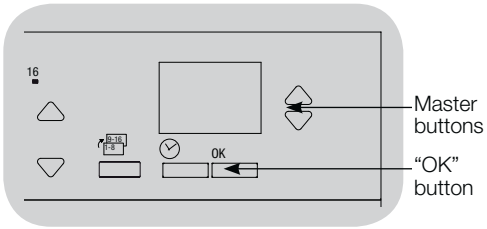
1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Location" and press the "OK" button to accept.
4. Use the Master buttons to set your location by either country and city or latitude and longitude. Press the "OK" button to accept.
5. Use the Master buttons to highlight the country and press the "OK" button to accept. Repeat for the state and closest city.
6. The info screen will confirm that your time and date have been saved.
7. Exit programming mode.

Setting Daylight Saving Time

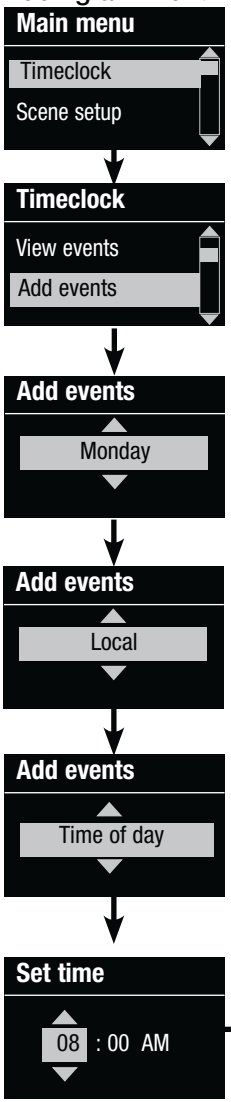


1. Enter programming mode and select "Timeclock". Use the Master buttons to highlight "Set DST" and press the "OK" button to accept.
2. Use the Master buttons to highlight "Yes" if your location observes daylight saving time, or "No" if it does not. Press the "OK" button to accept.
3. If yes, use the Master buttons to choose either "USA 2007" (the second Sunday in March to the first Sunday in November), or "Other." For "Other," follow the screens to set start and end dates and amount of time.
4. Press the "OK" button to accept. The info screen will confirm that your time and date have been saved.
5. Exit programming mode.

Timeclock Operation (continued)



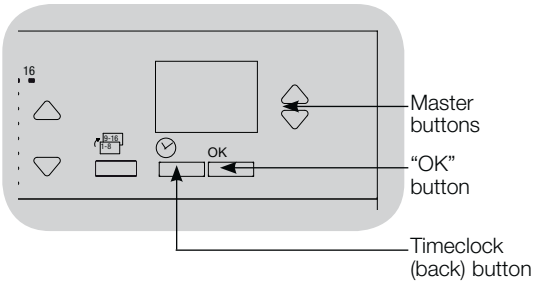
Adding an Event



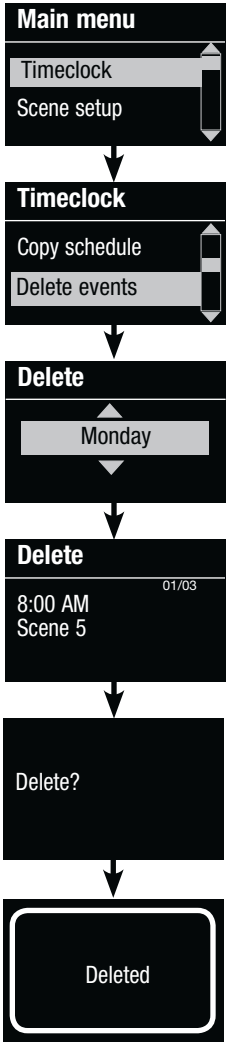
1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Add events" and press the "OK" button to accept.
4. Use the Master buttons to highlight the recurrence for this event: day of the week, holiday, weekdays or weekends. Press the "OK" button to accept.
5. Use the Master buttons to highlight the location of the timeclock event (local or remote). Press the "OK" button to accept.
   - Local events affect scenes controlled by the GRAFIK Eye® QS Control Unit
   - Remote events affect scenes controlled by another device on the QS link (e.g. Energi Savr Node™ QS)

   Note: Remote timeclock events provide a virtual timeclock to devices on the QS link without a built-in timeclock. This allows the GRAFIK Eye® QS control unit to activate scenes on other devices without affecting the space it controls.
6. Use the Master buttons to highlight the type of the event (fixed time of day or a relative time to sunrise or sunset). Press the "OK" button to accept.
7. For a fixed-time event, use the Master buttons to highlight the hour for your event to begin; press the "OK" button to accept. Repeat for the minutes.
   For a relative time event, use the Master buttons and the "OK" button to set the hour, then the minutes relative to sunrise or sunset (maximum of 1 hour, 59 minutes before or after sunrise or sunset).
8. Use the Master buttons to highlight the desired action for the timeclock event:
   - Scenes 1-16, Off
   - Shade Groups 1-3 open, preset, or close
   - Start/End Afterhours
   - Enable/Disable Occupancy
   - Enable/Disable Occupied Events
   - Enable/Disable Daylighting
9. The info screen will confirm that your event has been saved.
10. Repeat steps 4 through 9 for additional events.
11. Exit programming mode.

Timeclock Operation (continued)

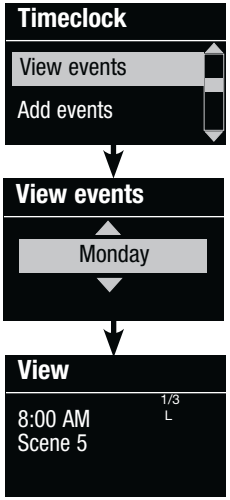


Deleting an Event



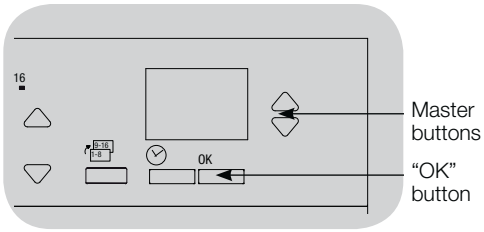
1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Delete events" and press the "OK" button to accept.
4. Use the Master buttons to highlight the day of the week (or holiday) when the event occurs; press the "OK" button to accept.
5. Use the Master buttons to highlight the event to delete; press the "OK" button to accept.
6. A screen will appear, verifying you wish to delete the event. Press the "OK" button to accept and delete; otherwise, press the Timeclock button to go back.
7. The info screen will confirm that your event has been deleted.
8. Exit programming mode.

Viewing an Event

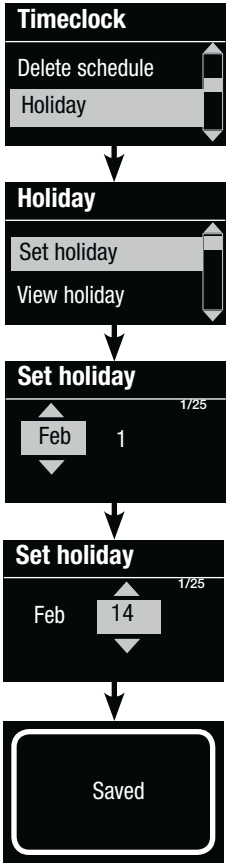


1. Enter programming mode, select "Timeclock," and select "View events".
2. Use the Master buttons to highlight the day of the week (or holiday) when the event occurs; press the "OK" button to accept.
3. Use the Master buttons to highlight the event to view; press the "OK" button to accept.
4. Press the "OK" button to return to the Timeclock menu.
5. Exit programming mode.

Timeclock Operation (continued)



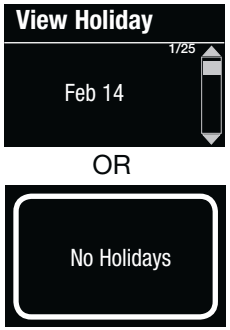
Setting a Holiday



1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Holiday" and press the "OK" button to accept.
4. Use the Master buttons to highlight "Set holiday" and press the "OK" button to accept.
5. Use the Master buttons to highlight the month of the holiday and press the "OK" button to accept. Repeat for the date.
6. The info screen will confirm that your holiday has been set.
7. Exit programming mode.

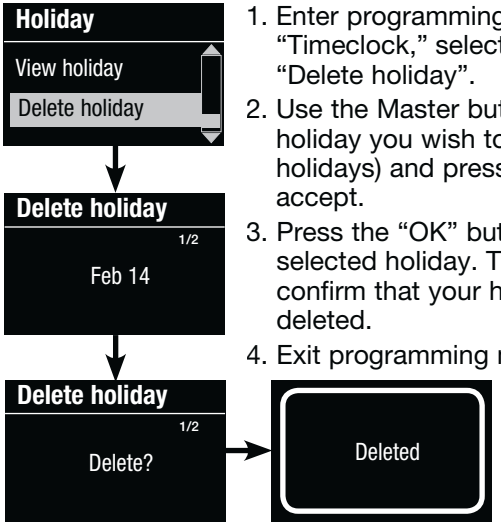
Note: The GRAFIK Eye® QS with EcoSystem® control unit supports up to 25 unique holidays. Follow the steps in "Adding an Event" to add Holiday timeclock events.

Viewing a Holiday



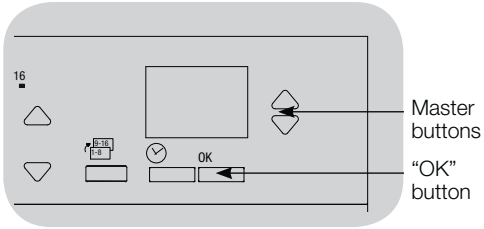
1. Enter programming mode, select "Timeclock," select "Holiday," and select "View holiday".
2. Use the Master buttons to scroll through the dates of the programmed holidays.
3. If no holidays are programmed, the info screen will display a screen informing you.
4. Exit programming mode.

Deleting a Holiday

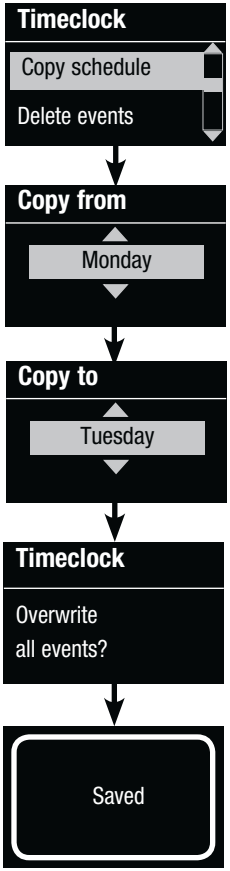


1. Enter programming mode, select "Timeclock," select "Holiday," and select "Delete holiday".
2. Use the Master buttons to highlight the holiday you wish to delete (or delete all holidays) and press the "OK" button to accept.
3. Press the "OK" button to delete the selected holiday. The info screen will confirm that your holiday has been deleted.
4. Exit programming mode.

Timeclock Operation (continued)

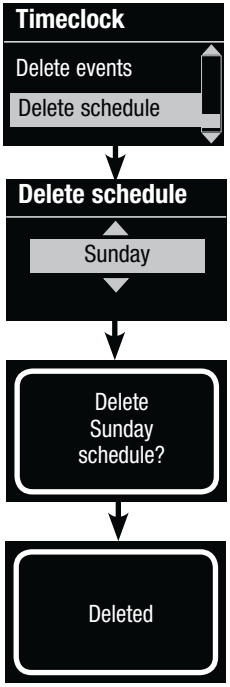


Copying a Schedule



1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock" and press the "OK" button to accept.
3. Use the Master buttons to highlight "Copy Schedule" and press the "OK" button to accept.
4. Use the Master buttons to highlight the day you want to copy the schedule from and press the "OK" button to accept.
5. Use the Master buttons to highlight the day you want to copy the schedule to and press the "OK" button to accept.
6. The info screen will ask you to confirm overwriting all events occurring on the selected day to copy to; press the "OK" button to accept.
7. Exit programming mode.

Deleting a Schedule



1. Enter programming mode, select "Timeclock," and select "Delete schedule".
2. Use the Master buttons to highlight the day of the schedule you wish to delete and press the "OK" button to accept.
3. The info screen will confirm that your event has been deleted.
4. The info screen will ask you to confirm deleting the schedule on the selected day; press the "OK" button to accept.
5. Exit programming mode.

Afterhours

The Afterhours feature of the GRAFIK Eye® QS control unit can be used to automatically set lights to an energy-saving level (typically "Scene Off"). This feature allows occupants to manually turn on lights, but will automatically turn them off after a specified amount of time.

When Afterhours starts, the lights will flash to alert occupants that the lights will soon fade to the Afterhours Scene. Occupants then can press a keypad button to extend the time until the Afterhours feature flashes the lights again.

The Afterhours feature of the GRAFIK Eye® QS control unit has three (3) modes of operation:

- **Enabled:** The GRAFIK Eye® QS control unit will allow the Afterhours feature to be activated.
- **Follow:** The GRAFIK Eye® QS control unit will execute the Afterhours settings of another associated device on the QS link.
- **Disabled (default):** The GRAFIK Eye® QS control unit will not start the Afterhours feature (even if it receives commands from a Timeclock event, contact closure input, or another device on the QS link).

Note: The Afterhours feature must be programmed to start or end through Timeclock events, the integral contact closure input, or another associated device on the QS link. The GRAFIK Eye® QS control unit will activate this feature only if the "Afterhours" mode has been set to "Enabled" or "Follow".

Afterhours Settings

Flash count: The amount of times the lights will flash to alert the room that the Afterhours Scene will soon be activated.
Range: 0 to 15 flashes (default 3 flashes)

Delay to off: The amount of time after the end of the "Flash count" before the Afterhours Scene is activated.
Range: 1 to 180 minutes (default 5 minutes)

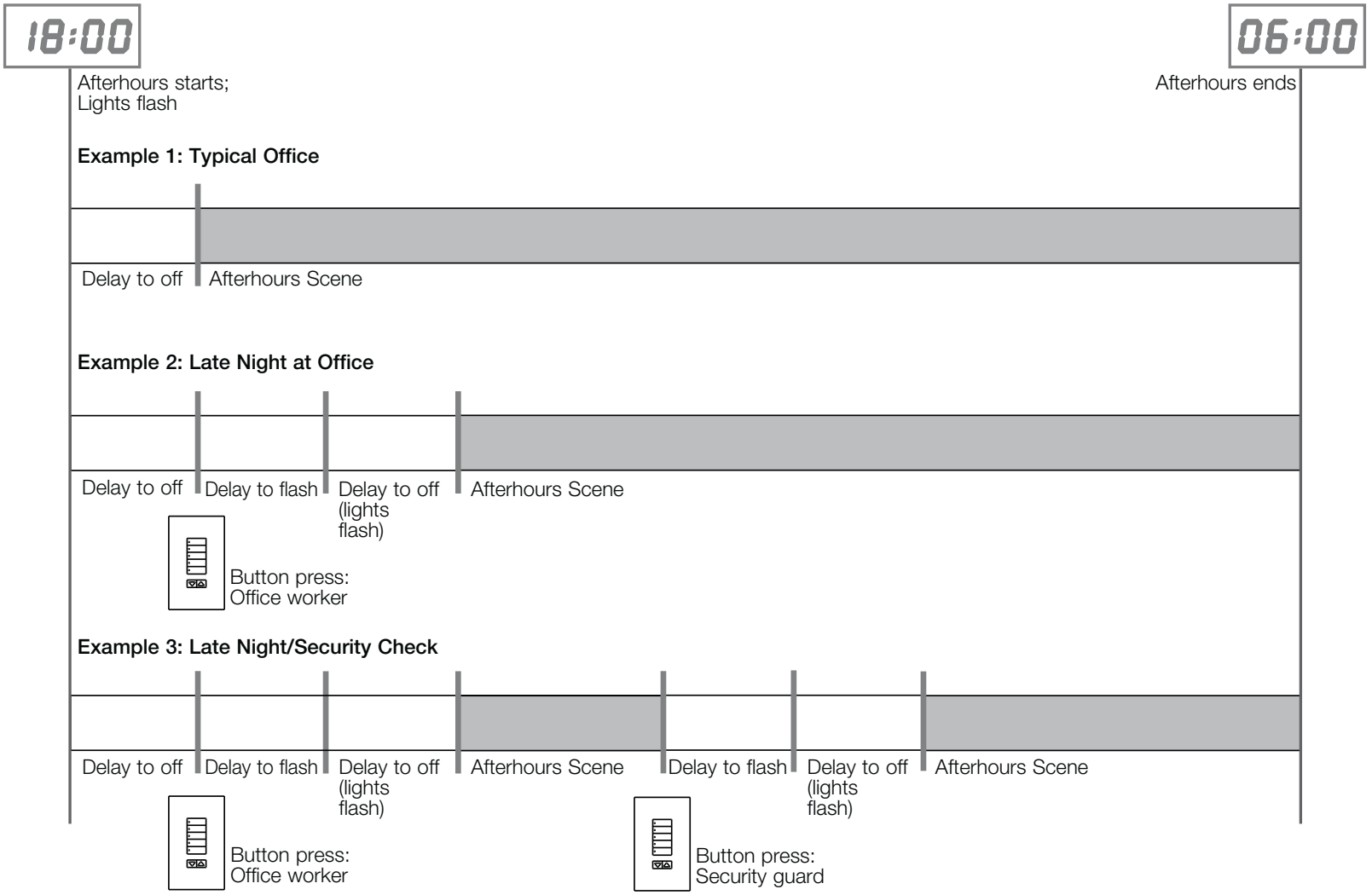
Delay to flash: The amount of time the system will wait after the Afterhours Scene is interrupted before flashing the lights again and restarting the Delay to off countdown.
Range: 1 to 180 minutes (default 45 minutes)

Afterhours scene: The scene that the GRAFIK Eye® QS control unit will activate when the Delay to off expires.
Range: Scenes 1 to 16, Off (default Scene off)

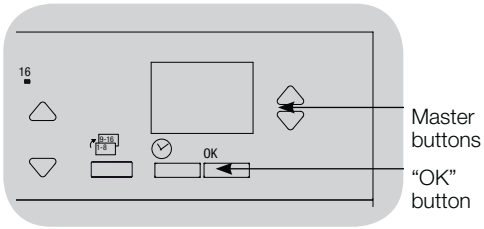
(See example on the next page.)

Afterhours (continued)

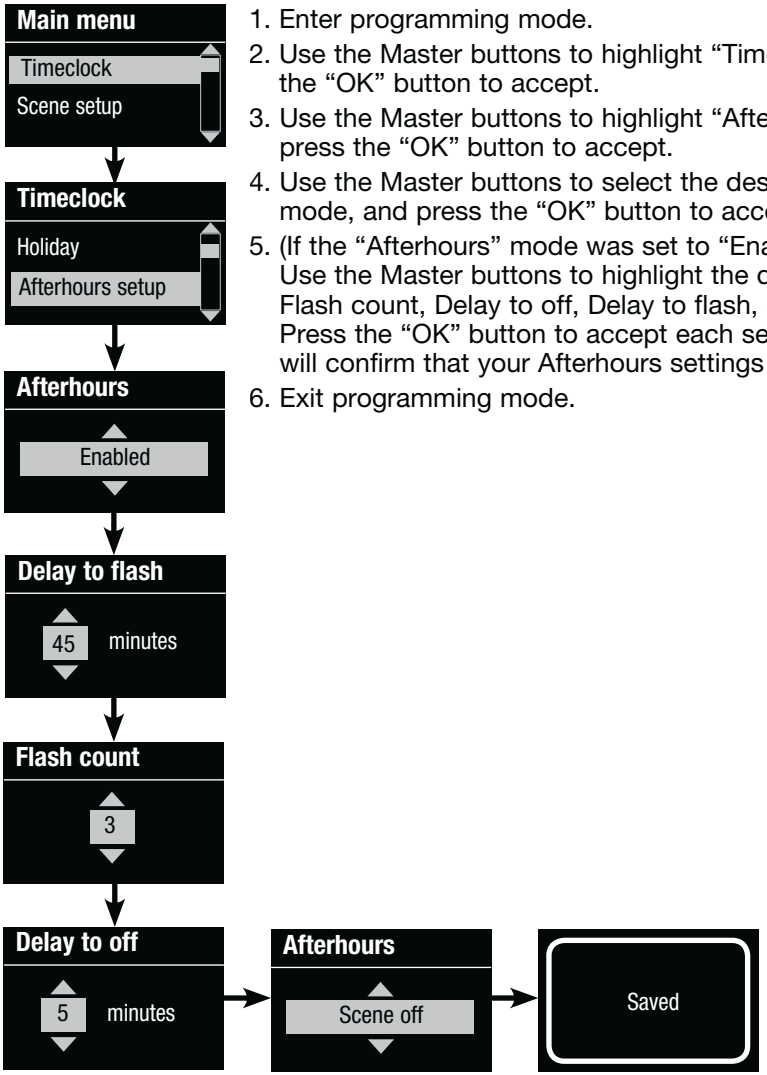
Afterhours Examples



Afterhours (continued)



Setting Up Afterhours



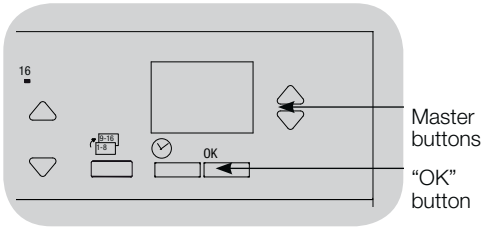
1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock", and press the "OK" button to accept.
3. Use the Master buttons to highlight "Afterhours setup", and press the "OK" button to accept.
4. Use the Master buttons to select the desired "Afterhours" mode, and press the "OK" button to accept.
5. (If the "Afterhours" mode was set to "Enabled")
   Use the Master buttons to highlight the desired values for Flash count, Delay to off, Delay to flash, and Afterhours scene. Press the "OK" button to accept each setting. The info screen will confirm that your Afterhours settings have been saved.
6. Exit programming mode.

Ending Afterhours

Once activated, the Afterhours feature can be overridden at any time and ended through the programming menu.

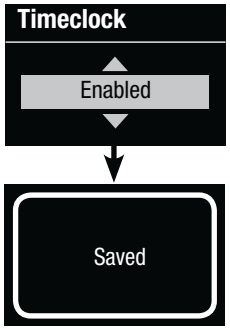
1. Enter programming mode.
2. Use the Master buttons to highlight "Timeclock", and press the "OK" button to accept.
3. Use the Master buttons to highlight "End Afterhours", and press the "OK" button to accept. The info screen will confirm that "Afterhours" mode is ended.
4. Exit programming mode.

Diagnostics and Special Settings



Enabling/Disabling the Timeclock

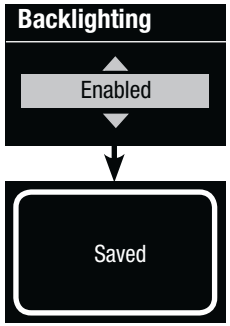
The timeclock can be enabled or disabled as desired.



1. Enter programming mode. Use the Master buttons to select "Timeclock." Press the "OK" button to accept.
2. Use the Master buttons to highlight either "Enabled" or "Disabled". Press the "OK" button to accept. The info screen will confirm that your setting has been saved.
3. Exit programming mode.

Enabling/Disabling the Backlighting

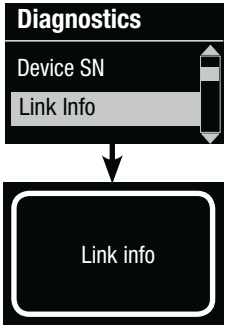
The backlighting on the info screen can be enabled or disabled as desired.



1. Enter programming mode and select "Backlighting". Press the "OK" button to accept.
2. Use the Master buttons to highlight either "Enabled" or "Disabled". Press the "OK" button to accept. The info screen will confirm that your setting has been saved.
3. Exit programming mode.

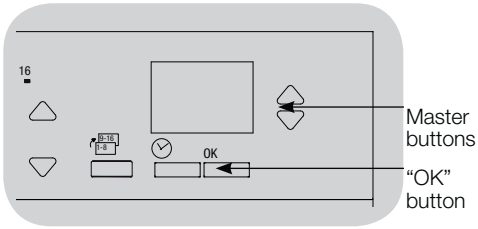
Diagnostics

If you are having trouble with your control unit and call Lutron® Technical Support, you may be asked for diagnostic information about your unit.



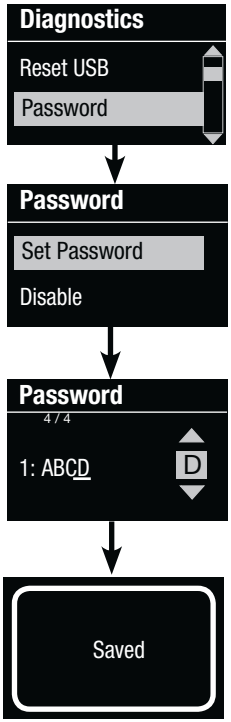
1. Enter programming mode and select "Diagnostics". Press the "OK" button to accept.
2. Use the Master buttons to highlight the option that will display the required information. The info screen can display the device serial number, link information, code version, or USB status. There is also an option to reset the USB connection (do this only if asked to by Lutron® Technical Support).
3. Exit programming mode.

Diagnostics and Special Settings (continued)



Setting the Security Password

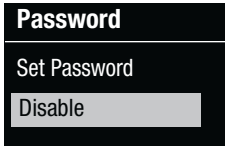
A four-digit password can be set as a security feature to protect the programming settings on the GRAFIK Eye® QS control unit.



1. Enter programming mode
2. Select "Diagnostics" and press the "OK" button to accept.
3. Select "Password" and press the "OK" button to accept.
4. Select "Set Password" and press the "OK" button to accept.
5. You will be prompted to input a four-digit password. Use the Master buttons to scroll through the characters (uppercase letters and numbers 0 through 9 only). The character you are currently changing in the password will appear underlined on the info screen. Press OK to select the desired character, and repeat for the remaining characters. The info screen will confirm that your setting has been saved.
6. Exit programming mode.

When you re-enter programming mode after setting your password, you will be prompted to enter your password. Use the method in Step 5 above to select and enter each character.

Note: The characters will appear on the info screen as asterisks.



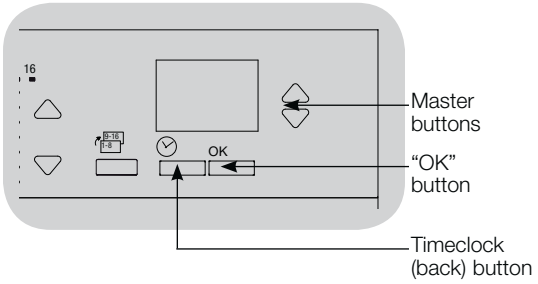
To disable your password, follow Steps 1 through 4 of "Setting the Security Password", and select "Disable" on the Password menu.

Language Selection

The GRAFIK Eye® QS control unit is capable of operating in the following languages:

- English
- French
- Spanish
- German
- Italian
- Portuguese

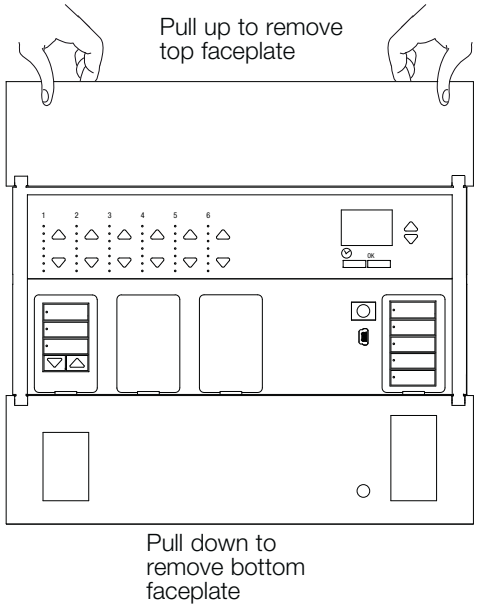
To change the language to one of these choices, press the Timeclock button four times, until the “Language” screen is displayed. (Note: Do not put the unit in programming mode.) Use the Master buttons to highlight your preferred language, and press the “OK” button to select and save.



Faceplate Removal

The faceplates may need to be removed to change the color or to write in zone labels. To remove either faceplate, open it fully (flush to the wall), and pull up (for the top faceplate) or down (for the bottom faceplate) to pull the hinges out of their slots.

Replace by sliding the hinges back into their slots.



Troubleshooting

Symptom	Possible Causes	Solution
Unit does not power up Unit does not control loads Circuit breaker is tripping	Circuit Breaker is off	Switch circuit breaker on
	Miswire	Verify wiring to unit and loads
	System short circuited	Find and correct shorts
	System overload	Verify zone/unit loading is within ratings (see Zone Setup section)
Zone control does not work Zone control yields incorrect results	Miswire	Make sure loads are connected to the right zones
	Loose or disconnected wire	Connect zone wires to loads
	Burned out lamps	Replace bad lamps
	Incorrect load type selected	Assign the zone to the appropriate load type (see Zone Setup section)
	Dimming limits set incorrectly	Adjust High End/Low End values (see Zone Setup section)
One or more zones are always “full on” and zone intensity is not adjustable Zone control affects more than one zone	Miswire	Make sure loads are connected to the right zones
	Shorted line output	Check wiring; if wiring is correct, call Lutron® Technical Support
Faceplate is warm	Normal operation	Solid-state controls dissipate about 2% of the connected load as heat. No action is required
Unit does not allow scene change or zone adjustments	Unit is in wrong save mode	Change to correct save mode
	QS device in system has locked the unit	Check programming and state of QS devices
Cannot program fade time from “Scene Off”	Fade time from “Scene Off” is not programmable; can only program fade time to “Scene Off”	Fade time from “Scene Off” is always 3 seconds
Integral (direct-wired) contact closure input does not work	Miswire	Check wiring on contact closure input
	Input CCI signal is not received	Verify the input device is operating properly
	Unit is in wrong CCI mode and/or type	Change to correct CCI mode and/or type for your application
QS devices on link are not working	Miswire or loose connection on QS link	Verify QS link wiring to all devices
	QS device is not associated	Place the QS device into programming mode, and hold the “Scene 1” button on the GRAFIK Eye® QS control unit to associate the two devices
	QS device programming is incorrect	Verify the functionality and programming on the QS devices
Timeclock events do not occur Sunrise or sunset events do not occur at the correct time	Timeclock is disabled	Enable the timeclock
	Time/date is not set correctly	Set the time/date
	Location is not set correctly	Set the latitude and longitude of the unit’s location
	Holiday schedule is in effect	Normal schedule will resume when the holiday ends

Troubleshooting (continued)

Symptom	Possible Causes	Solution
Device does not respond to infrared controls	IR Receiver is disabled	Enable the IR receiver
	Miswire or loose connection on rear IR terminal	Verify rear IR terminal wiring
Security lockout from programming mode	Security password set incorrectly	Call Lutron® Technical Support to reset password

Troubleshooting: Wireless Functions (for wireless enabled units only)

Symptom	Possible Causes	Solution
Cannot associate a wireless device to a unit	Unit does not support wireless functionality	Verify the unit says “GRAFIK Eye® QS Wireless” on the front label.
	Unit in incorrect wireless mode	Change wireless mode to “Enabled”
	Maximum number of devices have been associated with unit	Remove devices or associate with a different unit
	Wireless device is out of range	Verify wireless device is in range: 30 ft (9 m) through standard construction, 60 ft (18 m) line of sight
Associated wireless devices do not control unit	Wireless device has been unassigned from unit	Reassign wireless device to unit
	Devices are not receiving power	Check wireless device’s battery/power wiring
	Unit in incorrect wireless mode	Change to correct wireless mode (“Ignore Programming” or “Enabled”)
	Multiple devices are associated to the unit with contrasting settings	Verify the settings of wireless devices are consistent
	Wireless device is out of range	Verify wireless device is in range: 30 ft (9 m) through standard construction, 60 ft (18 m) line of sight
	Radio Powr Savr™ daylight sensors not in calibration mode	Follow instructions to calibrate daylight sensors
Wireless devices operate incorrectly	System is not configured correctly	Make sure wireless device settings are programmed as desired
	Intended settings were not saved	Reprogram wireless device settings
Wireless devices selectively operate	Wireless devices not located correctly	Follow instructions for each device to verify it is located for ideal performance
Info screen often prompts for wireless device association	Unit wireless mode set to “Enabled” and nearby wireless systems are being programmed	Change wireless mode to “Ignore Programming”

Troubleshooting: Shade Functions

Symptom	Possible Causes	Solution
Shade EDU (electronic drive unit) will not move	EDU is not powered	Connect power to EDU
	Shade fabric is caught on something	Check and unbind shade fabric
	EDU is not assigned to a shade button group	Assign the EDU to a shade button group
Shade button group will not control any shade	All limits are set to the same height	Verify limit settings
	Communications link is not wired to the EDU	Check and wire the EDU link
	EDU has been unassigned from shade button group	Reassign the EDU to the shade button group
Shade EDU does not fully open or fully close	Limits have been set incorrectly	Set limits correctly
	Shade fabric is caught on something	Check and unbind shade fabric
Shade moves in the opposite direction when raise/lower buttons are pushed	Open and close limits have been reversed	Set limits correctly
Shade button group does not operate all the shades it is assigned to	EDU has been unassigned from shade button group	Reassign the EDU to the shade button group
	All limits are set to the same height	Verify limit settings
	EDU is not wired correctly	Check and rewire EDU
	Shade button group is not wired correctly	Check and rewire shade button group
Shades in a room move on their own	EDUs are assigned to a shade button group in another room	Reassign the EDU to the correct shade button group
Unable to set limits on Sivoia® QS wireless shades through the GRAFIK Eye® QS control unit.	Normal operation	Limits must be set manually on the Sivoia® QS wireless EDU (see Sivoia® QS wireless shade installation guide)

Troubleshooting: EcoSystem® Functions

Symptom	Possible Causes	Solution
"Build System" command does not find EcoSystem® loads	E1 and/or E2 are miswired or not connected	Check wiring; if wiring is correct, call Lutron® Technical Support
Cannot add an EcoSystem® device to a zone after a "Build System" or "Address all" command has been run	Zone is not set to Digital	Set the zone to Digital
EcoSystem® device at full brightness cannot be controlled	E1 and E2 are not connected	Check E1 and E2 connections on the back of the GRAFIK Eye® QS with EcoSystem® control unit
	EcoSystem® link is overloaded	Reduce number of EcoSystem® devices on link to 64 or fewer. Check voltage: Minimum voltage of 12 V⎓
EcoSystem® devices do not flash when running the "Build System" command	EcoSystem® devices are not addressed EcoSystem® devices are miswired	Address EcoSystem® devices Check E1 and E2 wiring, and power wiring to EcoSystem® devices
EcoSystem® device is not affected by a zone level change	EcoSystem® device is not addressed	Run the "Address all" command and assign the EcoSystem® device to a zone
	EcoSystem® device is not assigned to a zone	Assign EcoSystem® device to a zone
System does not recognize sensors connected to a EcoSystem® device Sensor wired directly to an EcoSystem® device is not found during sensor setup	Sensor is miswired	Check sensor wiring (refer to the sensor manufacturer's instructions)
	Sensor was added after "Build System" command was run or EcoSystem® device may not have detected sensor	Create motion (occupancy) or induce light (daylight) within the sensor's range and run the appropriate "Sensor Setup" command
EcoSystem® device light levels can be lowered, but not raised to full On	EcoSystem® device is being affected by the daylight sensors	Recalibrate the associated daylight sensors

Warranty

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.

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NOTWITHSTANDING ANY DAMAGES THAT CUSTOMER MIGHT INCUR FOR ANY REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ALL DIRECT DAMAGES AND ALL DAMAGES LISTED ABOVE), THE ENTIRE LIABILITY OF LUTRON AND OF ALL OTHER PARTIES UNDER THIS WARRANTY ON ANY CLAIM FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, SALE, INSTALLATION, DELIVERY, USE, REPAIR, OR REPLACEMENT OF THE UNIT, OR ANY AGREEMENT INCORPORATING THIS WARRANTY, AND CUSTOMER'S SOLE REMEDY FOR THE FOREGOING, WILL BE LIMITED TO THE AMOUNT PAID TO LUTRON BY CUSTOMER FOR THE UNIT. THE FOREGOING LIMITATIONS, EXCLUSIONS AND DISCLAIMERS WILL APPLY TO THE MAXIMUM EXTENT ALLOWED BY APPLICABLE LAW, EVEN IF ANY REMEDY FAILS ITS ESSENTIAL PURPOSE.

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.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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Advance Mark X is a registered trademark of the Advance Transformer Company.

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