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

<table>
<thead>
<tr>
<th></th>
<th>120 V~ 50/60 Hz</th>
<th>220 - 240 V~ 50/60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Capacity (watts)</td>
<td>2000 W</td>
<td>3000 W</td>
</tr>
<tr>
<td>MLV</td>
<td>2000 VA / 1600 W</td>
<td>3000 VA / 2400 W</td>
</tr>
<tr>
<td>Zone Capacity (watts)</td>
<td>25 – 800 W</td>
<td>40 – 1200 W</td>
</tr>
<tr>
<td>MLV</td>
<td>25 – 800 VA / 25 – 600 W</td>
<td>40 – 1200 VA / 40 – 960 W</td>
</tr>
</tbody>
</table>

See page 7 for EcoSystem bus ratings; see page 9 for PELV (Class 2: USA) ratings.
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GRAFIK Eye® QS with EcoSystem® Installation and Operation Guide  2
Features and Functions of the GRAFIK Eye® QS with EcoSystem®

Hinged faceplate

Page button
Displays status or programming functions

Info screen
Displays status or programming functions

Master buttons
Temporarily raise and lower lighting levels on unit

Scene buttons
With integral scene indicator LEDs

Timeclock button
Displays current timeclock info

OK button
Used for programming, fade time

Infrared receiver
For handheld remote use

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®:
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.

EcoSystem Bus Wiring
(See page 7 for complete wiring specification)
Two 16 AWG (1.5 mm²) each terminal

EcoSystem devices: ballasts, drivers, or interfaces

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

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

Distribution Panel

Line Voltage/Mains Cables and Load Wiring
12 AWG (4.0 mm²) each terminal

Incandescent load

Load controlled by power module

Power module

120 - 127 V ~
or
220 - 240 V ~
Distribution Panel
Wiring the GRAFIK Eye® QS with EcoSystem®:
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.
• PELV (Class 2: USA) 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 PELV (Class 2: USA) 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 wiring diagrams (see page 4).
• Do not mix different load types on the same zone.
• Follow all local and national electrical codes when installing PELV (Class 2: USA) 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.
Wiring the GRAFIK Eye® QS with EcoSystem®:
Line Voltage Wiring Details (continued)

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

- Strip 5/16 inch (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-lbs (0.6 N-m) for line voltage/mains connections and 5.0 in-lbs (0.6 N-m) for the earth/ground connection.

Note: See page 19 for a list of compatible load types and instructions for programming the GRAFIK Eye QS with EcoSystem 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®: EcoSystem® Bus Wiring Details

EcoSystem bus wiring may be considered NEC® Class 1 or PELV (Class: USA).
• NEC® Class 1: EcoSystem bus wiring may be run in the same conduit as mains voltage wiring to fixtures.
• PELV (Class: USA): 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 E (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 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: Separate EcoSystem wiring from the mains wiring. If wiring the EcoSystem bus as PELV (Class: USA), maintain proper separation from mains and NEC® Class 1 wiring.

Step 4: Turn on circuit breaker to energize.

<table>
<thead>
<tr>
<th>EcoSystem Bus</th>
<th>18 V ——</th>
<th>250 mA</th>
</tr>
</thead>
</table>

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:

<table>
<thead>
<tr>
<th>Wire Gauge</th>
<th>Maximum EcoSystem Bus Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 AWG (4.0 mm²)</td>
<td>2200 ft (671 m)</td>
</tr>
<tr>
<td>14 AWG (2.5 mm²)</td>
<td>1400 ft (427 m)</td>
</tr>
<tr>
<td>16 AWG (1.5 mm²)</td>
<td>900 ft (275 m)</td>
</tr>
<tr>
<td>18 AWG (1.0 mm²)</td>
<td>570 ft (175 m)</td>
</tr>
</tbody>
</table>

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) 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®:
Overview of PELV (Class 2: USA) Wiring

IR Wiring
18 AWG (1.0 mm²)
each terminal
From external IR connection
(by others)

Contact Closure Input Wiring
For settings, see page 6.

Control Wiring
Common and power (terminals 1 and 2):
Two 18 AWG (1.0 mm²) each terminal

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

Example:
Occupancy sensor (maximum 1)

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.

Note: Use appropriate wire connecting devices as specified by local codes.
Wiring the GRAFIK Eye® QS with EcoSystem®:

**QS Link Control Wiring Details**

- System communication uses PELV (Class 2: USA) wiring.
- Follow all local and national electrical codes when installing PELV (Class 2: USA) 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 feet (610 m).
- Make all connections in the control unit’s wallbox.
- Wiring can be T-tapped or daisy-chained.
- Wire sizes:
  - Two 18 AWG (1.0 mm²) conductors for control power.
  - One twisted, shielded pair of 22 AWG (0.5 mm²) for data link.
  - Cable is available from Lutron: GRX-CBL-346S-500 (non-plenum) and GRX-PCBL-346S-500 (plenum). Check compatibility in your area.
- PELV (Class 2: USA) 24 V === 150 mA.

**System Limits**

The QS wired communication link is limited to 100 devices or 100 zones. Please note the zone count and power draw unit information in the following table.

<table>
<thead>
<tr>
<th>QS Device</th>
<th>Zone Count</th>
<th>Power Draw Units (supplied)</th>
<th>Power Draw Units (consumed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-zone GRAFIK Eye QS</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>4-zone GRAFIK Eye QS</td>
<td>4</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>6-zone GRAFIK Eye QS</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>8-zone GRAFIK Eye QS</td>
<td>8</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>16-zone GRAFIK Eye QS</td>
<td>16</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>seeTouch® QS</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>International seeTouch® QS</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sivoia® QS</td>
<td>1</td>
<td>0</td>
<td>(Refer to Spec. Submittal)</td>
</tr>
<tr>
<td>Contact closure interface</td>
<td>5</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Network interface</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DMX interface</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>QS smart power panel</td>
<td>0</td>
<td>(Refer to Spec. Submittal)</td>
<td>0</td>
</tr>
<tr>
<td>QS link power supply</td>
<td>0</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

**T-Tap Wiring Example**

**Daisy-Chain Wiring Example**
Wiring the GRAFIK Eye® QS with EcoSystem®:
QS Link Control Wiring and Terminal Connection Example

Control units shown in rear view

- Connect the terminal 1, 3, and 4 connections to all control units, wallstations, and control interfaces.
- Each control unit has its own power supply. Terminate the terminal 2 connection (24 V= power) so that each control unit supplies power to a maximum of three wallstations. Do not connect terminal 2 between a GRAFIK Eye QS control unit and any other GRAFIK Eye QS control unit and/or another power supply.
- Each wallstation should receive power from only one control unit.

QS1 powers wallstation 1 only; terminal 2 terminates at wallstation 1
QS2 and QS3 have their own power supply; no terminal 2 connection
QS3 powers wallstations 2, 3, and 4; no terminal 2 connection between wallstations 4 and 5
QS4 powers wallstations 5, 6, and 7 only; no terminal 2 connection between wallstations 4 and 5

EcoSystem devices: ballasts, drivers, and interfaces
To additional EcoSystem devices

Sivoia QS smart power supply panel

Power panel powers this shade only

Sivoia QS shade

EcoSystem link

E1
E2

To additional EcoSystem devices
Wiring the GRAFIK Eye® QS with EcoSystem®:
Powering More Than 3 Wallstations

- The GRAFIK Eye QS with EcoSystem can power up to 3 seeTouch® wallstations. An external 24 VDC power supply is required to power more than three 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.

- 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.

- The communication signals on the QS link (terminals 3 and 4) connect from the wallstations to the GRAFIK Eye QS on twisted, shielded cable just as when an additional power supply is not being used. Control unit shown in rear view.

Diagram:

- Lutron cable GRX-CBL-346S-500 (non-plenum) or GRX-PCBL-346S-500 (plenum)
- seeTouch QS wallstations
- QSPS-P1-1-50 (powers up to 8 seeTouch QS wallstations)
- To power source
Completing Installation of the GRAFIK Eye® QS with EcoSystem®

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 PELV (Class 2: USA) wiring with line voltage/mains wiring.

2. Verify installation:  
   • Restore power.  
   • Press the top scene button. The LED will light.  
   • Press the zone raise or lower button. Make sure the control unit is dimming all connected loads.

3. Apply the protective overlay to the control unit. See page 21 for instructions for naming zones.

**Note:** When tightening mounting screws, make sure that the hinged cover and faceplate will open fully, as shown.
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® 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), set the load type before proceeding. See pages 18-19 for instructions on setting load type. See page 39 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)

Non-dim zones:
• Press raise to turn zone on
• Press lower to turn zone off

Note: To set zone types, see pages 18-19.

Zone LED Displays for % of Lighting Levels

<table>
<thead>
<tr>
<th>Light Level (%)</th>
<th>Off</th>
<th>1-17</th>
<th>18-33</th>
<th>34-49</th>
<th>50-66</th>
<th>67-82</th>
<th>83-99</th>
<th>On/100</th>
<th>UA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimmable Load Types</td>
<td><img src="image1.png" alt="LEDs Off" /></td>
<td><img src="image2.png" alt="LEDs Off" /></td>
<td><img src="image3.png" alt="LEDs Off" /></td>
<td><img src="image4.png" alt="LEDs Off" /></td>
<td><img src="image5.png" alt="LEDs Off" /></td>
<td><img src="image6.png" alt="LEDs Off" /></td>
<td><img src="image7.png" alt="LEDs Off" /></td>
<td><img src="image8.png" alt="LEDs Off" /></td>
<td><img src="image9.png" alt="LEDs Off" /></td>
</tr>
<tr>
<td>Non-Dim Load Types</td>
<td><img src="image10.png" alt="LEDs Off" /></td>
<td><img src="image11.png" alt="LEDs Off" /></td>
<td><img src="image12.png" alt="LEDs Off" /></td>
<td><img src="image13.png" alt="LEDs Off" /></td>
<td><img src="image14.png" alt="LEDs Off" /></td>
<td><img src="image15.png" alt="LEDs Off" /></td>
<td><img src="image16.png" alt="LEDs Off" /></td>
<td><img src="image17.png" alt="LEDs Off" /></td>
<td><img src="image18.png" alt="LEDs Off" /></td>
</tr>
</tbody>
</table>

Legend:
- UA = Unaffected (lights are not affected by scene button or Master buttons)
- LED lit
- LED off
Programming Mode

Entering and Exiting Programming Mode

<table>
<thead>
<tr>
<th>Main menu</th>
<th>Scene setup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeclock</td>
<td></td>
</tr>
</tbody>
</table>

To 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 that you are in programming mode, and the info screen will display the main menu.

To exit 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”.

Press and hold the top and bottom buttons for 3 seconds to enter or exit programming mode.
Wireless Mode

Many models of the GRAFIK Eye® QS 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, as well as compatibility with other Lutron wireless systems such as RadioRA® 2. (See the RadioRA® 2 Installation Guide for RadioRA® 2 setup.)

Units supporting wireless communication have model numbers beginning with QSGRJ or QSGRK.

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

- **Disabled**: Use for wired-only systems.
- **Enabled**: The GRAFIK Eye QS Wireless control unit will respond to any programming commands from nearby Lutron QS wireless (and compatible) products.
- **Ignore Programming (default)**: The GRAFIK Eye QS Wireless control unit will only respond to normal operation commands from wireless devices programmed while in Enabled mode.

To change the wireless mode of the GRAFIK Eye QS wireless control unit:

1. Enter programming mode (see page 16).
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 (see page 16).

**Notes**

- The wireless signal has a range of 30 feet (10 m) through standard construction.
- When used within a RadioRA® 2 system, the wired QS link on the GRAFIK Eye QS is disabled, and certain features that do not pertain to RadioRA® 2 are not accessible.

**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

Assign Load Types

1. Enter programming mode (see page 16).
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 (see page 16).

Assign Non-Dim Load Type

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

- LOFO: Last On, First Off
- FOFO: First On, First Off
- FOLO: First On, Last Off

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 (see page 16).
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 (see page 16).
### 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.**

**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 a magnetic low-voltage (MLV) varies by input voltage:**
  - 120 - 127 V〜: 800 VA / 600 W
  - 220 - 240 V〜: 1200 VA / 960 W

---

<table>
<thead>
<tr>
<th>Zones 1 - 3</th>
<th>Fixture load type</th>
<th>Choose this load type from the menu on the GRAFIK Eye® QS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incandescent</td>
<td>Power module</td>
</tr>
<tr>
<td></td>
<td>MLV (magnetic low-voltage)</td>
<td>MLV Power module</td>
</tr>
<tr>
<td></td>
<td>ELV (electronic low-voltage)</td>
<td>— Power module</td>
</tr>
<tr>
<td></td>
<td>Hi-Lume®/Eco-10®</td>
<td>— Fluorescent module</td>
</tr>
<tr>
<td></td>
<td>Non-dim lighting loads</td>
<td>— Non-dim</td>
</tr>
<tr>
<td></td>
<td>Neon/Cold cathode</td>
<td>Neon, CC Neons, CC</td>
</tr>
<tr>
<td></td>
<td>Tu-Wire®</td>
<td>Tu-Wire® Tu-Wire®</td>
</tr>
<tr>
<td></td>
<td>EcoSystem®</td>
<td>EcoSystem® —</td>
</tr>
<tr>
<td></td>
<td>DMX</td>
<td>DMX —</td>
</tr>
<tr>
<td></td>
<td>RGB/CMYK DMX</td>
<td>RGB/CMYK DMX —</td>
</tr>
<tr>
<td></td>
<td>EcoSystem® switching (e.g., XPJ)</td>
<td>Non-dim digital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zones 4 - 16</th>
<th>Fixture load type</th>
<th>Choose this load type from the menu on the GRAFIK Eye® QS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EcoSystem®</td>
<td>— EcoSystem®</td>
</tr>
<tr>
<td></td>
<td>DMX</td>
<td>— DMX</td>
</tr>
<tr>
<td></td>
<td>RGB/CMYK DMX</td>
<td>— RGB/CMYK DMX</td>
</tr>
<tr>
<td></td>
<td>EcoSystem® switching (e.g., XPJ)</td>
<td>— Non-dim digital</td>
</tr>
</tbody>
</table>
Zone Setup

Set 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.
- High end and low end trims are not applicable to EcoSystem® zones.

1. Enter programming mode (see page 16).
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 (see page 16).

Set 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 (see page 16) 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 (see page 16).
**Zone Setup**

**Label a Zone (optional)**

1. Enter programming mode (see page 16).
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 (see page 16).

*Note:* On 16-zone units, each column of buttons will represent 2 zones of light, one on page 1 and the other on page 2. Pressing a raise/lower in column 1 while on page 1 (Zone 1) does not affect the level of column 1/page 2 (Zone 9).
**Application Suggestions and Differences between GRAFIK Eye® QS with EcoSystem® and Standard EcoSystem® Bus Supply**

Lutron’s *EcoSystem* is a powerful system comprised of sensors and lighting loads (ballasts, drivers, and interfaces). The functionality, feature set, and setup procedures for *EcoSystem* depend upon the main controlling device, or “bus supply”. The GRAFIK Eye QS with *EcoSystem* differs from the standard *EcoSystem* bus supply as indicated below.

<table>
<thead>
<tr>
<th>Suggested/Recommended Applications</th>
<th>GRAFIK Eye® QS with EcoSystem®</th>
<th>EcoSystem® Bus Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested/Recommended Applications</td>
<td>Single rooms, partitioned spaces e.g., conference room, classroom, ballroom, lobby</td>
<td>Open spaces, multiple enclosed rooms e.g., open office, window offices</td>
</tr>
<tr>
<td>Programming Method</td>
<td>Info Screen on the QS control unit</td>
<td>Via PDA or <em>EcoSystem</em> keypads</td>
</tr>
<tr>
<td>Timeclock</td>
<td>Yes (integral)</td>
<td>No</td>
</tr>
<tr>
<td>Compatible with seeTouch® QS Keypads</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Compatible with <em>EcoSystem</em> Wall Controls</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Compatible with <em>EcoSystem</em> IR Sensors</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Programming from <em>EcoSystem</em> PDA</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Programming from <em>EcoSystem</em> Wall Control</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Includes dry contact closures for integration to BMS or Security Systems</td>
<td>Yes (1)</td>
<td>Yes (2)</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>120 - 127 V~ or 220 - 240 V~ 50/60 Hz</td>
<td>120 / 240 / 277 V~ 50/60 Hz</td>
</tr>
<tr>
<td>Number of <em>EcoSystem</em> Busses</td>
<td>1</td>
<td>1 or 2</td>
</tr>
<tr>
<td>Number of Zones</td>
<td>6, 8, or 16</td>
<td>—</td>
</tr>
<tr>
<td>Number of Line Voltage Zones</td>
<td>3 (Zones 1-3 only)</td>
<td>—</td>
</tr>
<tr>
<td>Compatible with other QS Devices</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
EcoSystem® Setup Overview

After EcoSystem devices are wired and powered, they must be reset and addressed so the system can control them. The “Build System” command automates this process, as shown below. (For best results, force occupancy sensors attached to EcoSystem devices to the occupied state by creating motion within their range while building the system.)

**Note:** All existing EcoSystem programming will be deleted when the “Build System” command is run.

### Build System

1. Enter programming mode (see page 16).
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 (see page 16).

**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.) 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

Assign/Unassign an EcoSystem Device to a Zone (Zone setup)

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

1. Enter programming mode (see page 16).
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. Press the OK button to select “Ballast”.
5. 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.
6. Press the timeclock (back) button to return to the EcoSystem menu. EcoSystem devices will return to normal levels.
7. Exit programming mode (see page 16).

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 page 18 for instructions on changing load type.
EcoSystem® Setup

Address EcoSystem Devices
Note: This step is needed if EcoSystem devices are replaced or added to the system after the “Build System” command is run (see page 23).

1. Enter programming mode (see page 16).
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 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. Exit programming mode (see page 16).
Contact Closure Input (CCI) Mode Setup
(wired directly to the GRAFIK Eye® QS)

The integral contact closure input (CCI) on the back of the GRAFIK Eye® QS can be configured to match the installation requirements. The choices are listed and explained below. (See page 8 for wiring details.)

To change the operation of the contact closure input:

1. Enter programming mode (see page 16).
2. Use the Master buttons to highlight “CCI Mode” and press the OK button to accept.
3. Use the Master buttons to highlight the mode you wish the CCI to control. Press the OK button to accept.
4. The info screen will confirm that your setting has been saved.
5. Exit programming mode (see page 16).

CCI Mode Settings

- **Occupancy**: 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 to work with a LUT-ELI-3PH emergency lighting interface. When an emergency situation is detected, all lights will go to full on, and no operations will be allowed until the emergency signal is cleared.
- **Afterhours**: Allows the CCI to start and end the afterhours mode.
- **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.

---

### Main menu

<table>
<thead>
<tr>
<th>Main menu</th>
<th>CCI Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save Mode</td>
<td>Occupancy</td>
</tr>
</tbody>
</table>

### CCI Mode

- **Occupancy**: Saved
- **Lockout**: OK

---

### Timeclock (back) button

- **Master buttons**
- **OK button**
Associating Wireless Occupancy Sensors and GRAFIK Eye® QS Wireless Control Units
(for wireless enabled units only)

Lutron’s wireless Radio Powr Savr™ occupancy and vacancy sensors can be associated with the GRAFIK Eye QS Wireless to activate scenes when occupancy or vacancy is detected.

This section applies to installations where the GRAFIK Eye QS Wireless is being used in a single-room wireless installation. Refer to the RadioRA® 2 installation guide for setting up occupancy and vacancy sensors in a RadioRA® 2 system.

To associate wireless occupancy sensors and GRAFIK Eye QS control units:

1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled” (see page 17).
2. Press and hold the “Lights On” and “Lights Off” buttons on the front of the occupancy/vacancy sensor simultaneously until the lens starts flashing (about 3 seconds). The info screen on the GRAFIK Eye QS will display “Occ Sensor Programming.”
3. Press and hold the top scene button of the GRAFIK Eye QS Wireless control unit until the LEDs flash (about 3 seconds).
4. Return to the occupancy sensor. Press and hold the “Lights On” and “Lights Off” buttons simultaneously until the lens stops flashing (about 3 seconds).
5. Test communication between the devices using the “Lights On” and “Lights Off” buttons.

To disassociate wireless occupancy sensors and GRAFIK Eye control units:

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

Note: The wireless signal has a range of 30 feet (10 m) through standard construction.

On the wireless occupancy sensor, press and hold the “Lights On” and “Lights Off” buttons for 3 seconds to begin or end association or disassociation with the GRAFIK Eye QS control unit.

Note: Pressing the “Lights On” button initiates the “occupied” action on the GRAFIK Eye QS control unit. Pressing the “Lights Off” button initiates the “unoccupied” action.
Occupancy Sensor Setup

Mode Assignment
This step allows you to assign occupancy sensors (wired and wireless) on the QS link or connected to the GRAFIK Eye® QS control unit. Sensors can be assigned in either Scene Mode or Zone Mode.

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

Zone Mode is useful when the GRAFIK Eye QS is controlling lights in multiple rooms or areas. 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 user-selectable occupied and unoccupied levels.

1. Enter programming mode (see page 16).
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 “Scene Mode” to assign sensors to scenes, or “Zone Mode” to assign sensors to zones. Press the OK button to accept. A screen will confirm your selected mode has been saved and you will return to the Occ Sensor screen.

To configure Scene Mode, see page 29. To configure Zone Mode, see page 30.
Occupancy Sensor Setup

Scene Mode
This step allows you to assign occupied and unoccupied scenes to up to four occupancy sensors connected to the GRAFIK Eye® QS control unit.

Select Sensors
1. If not already done, complete the steps on page 28, and select “Scene Mode”.
2. Use the Master buttons to highlight “Setup” and press the OK button to accept. The 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. A screen will verify your choice has been completed. Repeat for additional sensors.

Set Sensor Action
4. Press the Back button to return to the Occ Sensor screen. Use the Master buttons to highlight “Actions” and press the OK button to accept. By default, the occupied scene is set to “No Action” and the unoccupied scene is set to “Scene Off”.
5. 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.
6. Exit programming mode (see page 16).

Note: If wireless sensors are not found, verify that they are associated correctly (see page 27).
Occupancy Sensor Setup

Zone Mode
This step allows you to assign occupied and unoccupied zone levels to up to four occupancy sensors per zone connected to the GRAFIK Eye® QS control unit. Sensors can be added to more than one zone.

Select Sensors
1. If not already done, complete the steps on page 28, and select “Zone Mode”.
2. Use the Master buttons to highlight “Setup” and press the OK button to accept.
3. Use the Master buttons to highlight “Add/Modify” and press the OK button to accept. Available sensors will be displayed.
4. 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.
5. Use the zone raise and lower buttons for each 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. Repeat for all desired sensors and press OK. A screen will verify your settings have been saved.

Set Sensor Action
6. Press the Back button to return to the Occ Sensor screen.
   Use the Master buttons to highlight “Actions” and press the OK button to accept.
7. Use the zone raise and lower buttons to adjust each zone to its desired occupied level and press the OK button to accept. Press and hold the zone lower button to designate a zone as unaffected by the sensor. Repeat for the zone levels you wish to use for unoccupied status. Press the OK button to accept.
8. Exit programming mode (see page 16).
   Note: If wireless sensors are not found, verify that they are associated correctly (see page 27).
Label an Occupancy Sensor (optional)

1. Enter programming mode (see page 16).
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. Press the OK button to accept.
7. The info screen will confirm that your name has been saved.
8. Exit programming mode (see page 16).
Occupancy Sensor Setup

Configure Occupancy Sensor Settings

1. Enter programming mode (see page 16).
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. See below for descriptions of the settings and their values. 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 (see page 16).

Occupancy Sensor Settings

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

Grace Period: If an occupancy sensor detects vacancy, motion detected within the grace period will maintain the lights at the previously occupied level.
Range: 15 – 30 seconds (default 15 seconds).

Vacancy Delay: An additional time delay after vacancy is detected and before unoccupied action occurs. Useful when occupancy sensor does not provide sufficient delay. Applies only to occupancy sensors, not vacancy sensors.
Range: 0 – 0 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 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: 1 – 30 minutes (default 30 minutes).

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 – 60 minutes (default 10 seconds).
Associating Wireless Daylight Sensors and GRAFIK Eye® QS Wireless Control Units
(for wireless enabled units only)

Lutron’s wireless Radio Powr Savr™ daylight sensors can be associated with the GRAFIK Eye QS Wireless to adjust light levels when certain daylight levels are detected. This section applies to installations where the GRAFIK Eye QS Wireless is being used in a single-room wireless installation. Daylight sensors do not work when the GRAFIK Eye QS is part of a RadioRA® 2 system.

To associate wireless daylight sensors and GRAFIK Eye QS Wireless control units:

1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled” (see page 17).
   **Note:** To properly save the wireless mode, exit and then re-enter programming mode before associating wireless daylight sensors.

2. Enter programming mode (see page 16).

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 front of the daylight sensor until the sensor starts flashing. The info screen on the GRAFIK Eye QS 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.

7. Repeat the above steps for all desired sensors.

6. Exit programming mode (see page 16).

To disassociate wireless daylight sensors and GRAFIK Eye QS control units:

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.

**Note:** The wireless signal has a range of 30 feet (10 m) through standard construction.
Daylight Sensor Setup

Mode Assignment
This step allows you to assign daylight sensors on the QS link or connected to the GRAFIK Eye® QS control unit. Sensors can be assigned in either Zone Mode or Group Mode.

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

1. Enter programming mode (see page 16).
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.

To configure Zone Mode, see page 35. To configure Group Mode, see page 36.

Note: Changing modes will remove all previous daylight assignments.
Daylight Sensor Setup

Zone Mode
This step allows you to assign sensors to each zone, with one daylight sensor per zone connected to the GRAFIK Eye® QS control unit. Sensors can be assigned to more than one zone.

### Select Sensors
1. If not already done, complete the steps on page 34, and select “Zone Mode”.
2. Use the Master buttons to highlight “Setup” and press the OK button to accept. Available sensors will be displayed.
3. You can assign one sensor 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 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. Repeat for all desired sensors and press OK. A screen will verify your settings have been saved.
5. Calibrate sensors: Press the Timeclock (back) button to return to the Daylight Sensor screen. Use the Master buttons to select the desired group and press the OK button to accept.
6. Use the Master buttons to select the desired zone and press the OK button to accept.
7. Put any wireless Radio PowrSavr™ daylight sensors associated with the desired zones into Calibrate Mode: Press and hold the “Cal” button for 6 seconds until the sensor flashes.
8. 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. Press the OK button to accept.
9. Exit programming mode (see page 16).

**Note:** If wireless sensors are not found, verify that they are associated correctly (see page 33).

<table>
<thead>
<tr>
<th>Daylight Sensor</th>
<th>Sensor Name</th>
<th>Adjust Light</th>
<th>Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup</td>
<td>Zone 1</td>
<td>More light</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less light</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sensor</th>
<th>x/y</th>
<th>SN: xxxx-xxxx:</th>
<th>Source: RF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Zones</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1-2  3  4  5  6  9  1  0  11  12  13  14  7  8  15  16
9-16  1-

16

Master buttons

OK button

Timeclock (back) button

Sensor Name

Cal button

Adjust Light

Saved
Daylight Sensor Setup

Group Mode
This step allows you to assign daylight sensors to a group of EcoSystem® loads connected to the GRAFIK Eye® QS control unit. You may also assign daylight sensors to line-voltage zones in this mode.

Set Up Groups
1. If not already done, complete the steps on page 34, and select “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 x if it is currently assigned to another group (x = the group number it is assigned to)
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

Group Mode (continued)

Select 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 and repeat for additional sensors.
5. Calibrate sensors: Press the Timeclock (back) button to return to the Daylight Sensor screen. Use the Master buttons to select the desired group and press the OK button to accept.
6. Use the Master buttons to select the desired group and press the OK button to accept.
7. Put any wireless Radio PowrSavr™ daylight sensors associated with the desired groups into Calibrate Mode: Press and hold the “Cal” button for 6 seconds until the sensor flashes.
8. 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. Press the OK button to accept.
9. Exit programming mode (see page 16).

Note: If wireless sensors are not found, verify that they are associated correctly (see page 33).
Daylight Sensor Setup

Label a Daylight Sensor (optional)

1. Enter programming mode (see page 16).
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. Press the OK button to accept.
7. The info screen will confirm that your name has been saved.
8. Exit programming mode (see page 16).
Scene Setup

Set Zone Levels, Fade Rates, and Shade Group Actions

1. Enter programming mode (see page 16).
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.
Press the shade button that will take the shades assigned to that button group to the level you want for this scene. Repeat for any additional shade button groups. Press the OK button to accept. For shade programming, see pages 47 through 50.

7. The info screen will confirm that your scene has been saved.
8. Exit programming mode (see page 16).
Scene Setup

Label a Scene (optional)

1. Enter programming mode (see page 16).
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 (see page 16).

Enable/Disable Daylighting per Scene

1. Enter programming mode (see page 16).
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 “Enabled” or “Disabled”. When a scene is disabled, it will not respond to any commands from daylight sensors assigned to the control unit. Press OK to save.
6. Exit programming mode (see page 16).
Set Save Mode

1. Enter programming mode (see page 16).
2. Use the Master buttons to highlight “Save mode” and press the OK button to accept.
3. Use the Master buttons to highlight the save mode you would like. 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 (see page 16).

Save Modes

<table>
<thead>
<tr>
<th>Save by OK (default mode)</th>
<th>Quick scene programming mode; zone adjustments are temporary until the OK button is pressed to confirm the selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save always</td>
<td>Automatically save changes made to lighting levels or fade time to Off (Master button changes are temporary)</td>
</tr>
<tr>
<td>Save never</td>
<td>Do not save any temporary changes to lighting levels or fade time</td>
</tr>
<tr>
<td>Four scenes (typically used for rented spaces)</td>
<td>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</td>
</tr>
<tr>
<td>Button disable (typically used in a public space)</td>
<td>Only the timeclock button, IR receiver, and wallstations can be used to make temporary changes</td>
</tr>
</tbody>
</table>

Note: Scene Off changes can only be saved through scene setup in programming mode (see page 39).
Quick Scene Programming

Save by OK Mode
By default, the GRAFIK Eye® QS 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.
3. To set the fade time to Off for this scene, press the OK button, then use the Master buttons to set the desired fade time to Off. Press the OK button to save.

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.
Timeclock Operation

Set Time and Date

1. Enter programming mode (see page 16).
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 (see page 16).
Timeclock Operation

Set Location

Main menu
- Timeclock
- Scene setup
- Timeclock
- Time & date
- Location

Location by
- Country, City
- Lat/Longitude

Country
- USA

State
- Pennsylvania

City
- Philadelphia

1. Enter programming mode (see page 16).
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 (see page 16).

Set Daylight Saving Time

1. Enter programming mode (see page 16) 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 007” (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 (see page 16).
Timeclock Operation

Add an Event

1. Enter programming mode (see page 16).
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 day of the week for
   this event; press the OK button to accept.
5. Use the Master buttons to highlight the type of event (fixed
   time of day, or relative to sunrise or sunset); press the
   OK button to accept.
6. 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).
7. Use the Master buttons to highlight the scene you wish to
   activate for this event.
   For a timeclock event involving only shades, scroll through
   the scenes to find the group of shades and the action (1, 2,
   or 3; open, preset, or close) you want to add to the timeclock
   event.
   Or, press the button on the shade button group that produces
   the action you want to add to this timeclock event.
   Press the OK button to accept.
8. The info screen will confirm that your event has been saved.
9. Exit programming mode (see page 16).
Timeclock Operation

Delete an Event

1. Enter programming mode (see page 16).
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 (see page 16).

View an Event

1. Enter programming mode (see page 16), 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 (see page 16).
Timeclock Operation

Set a Holiday

1. Enter programming mode (see page 16).
2. Use the Master buttons to highlight “Timeclock” and press the OK button to accept.
3. Use the Master buttons to highlight “Holidays” 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 (see page 16).

Note: The GRAFIK Eye® QS with EcoSystem® supports up to 5 unique holidays. Follow the steps on page 46 to add Holiday timeclock events.

View a Holiday

1. Enter programming mode (see page 16), select “Timeclock,” select “Holidays,” 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 (see page 16).

Delete a Holiday

1. Enter programming mode (see page 16), select “Timeclock,” select “Holidays,” and select “Delete holiday”.
2. Use the Master buttons to highlight the holiday you wish to delete and press the OK button to accept.
3. The info screen will confirm that your event has been deleted.
4. Exit programming mode (see page 16).
Timeclock Operation

Copy a Schedule

1. Enter programming mode (see page 16).
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 (see page 16).

Delete a Schedule

1. Enter programming mode (see page 16), 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 (see page 16).
Timeclock Operation

Afterhours Mode

Afterhours Mode is an advanced power-saving feature. It allows occupants to manually turn on lights, but automatically turns the lights off after a specified amount of time (Delay time). Before turning off, the lights can be set to flash to warn occupants, giving them the opportunity to extend the time until Afterhours Mode is activated by pressing a button on the GRAFIK Eye QS or on any associated wallstation. Afterhours Mode can be started and stopped by Timeclock events (see page 45).

Afterhours Settings include:

Flash count: How many times the lights will dim and brighten (for dimmable loads) or turn on and off (for non-dim loads) to warn the occupants the lights will be going to the Afterhours Scene (default 3 flashes).

Delay time: How long the system will wait from the end of the Flash Count until the lights go to the Afterhours Scene (default 15 minutes).

Warn time: How long the system will wait after a button is pressed on the GRAFIK Eye QS or on any associated wallstation (or the space is occupied) to warn the occupants that the lights will be going to the Afterhours Scene and restart the Delay Time countdown (default 5 minutes).

Afterhours Scene: Set by the user, the scene the lights will go to when Afterhours Mode is enabled (default scene is Scene 5).

Afterhours also has three modes to choose from:

Enabled: The enabled mode walks the user through each of the above settings’ screens (see the next page). The initial values shown on the screens are the defaults; press OK to accept, or use the Master buttons to modify the values. A GRAFIK Eye in enabled mode will also cause any other associated GRAFIK Eye on the link (if it is not in afterhours disabled mode) to go into afterhours mode. (See page 57 for an explanation of association.)

Disabled: A GRAFIK Eye in disabled mode will not send any of the loads it controls into Afterhours Mode, even if set as a timeclock event or asked to by another GRAFIK Eye on the link.

Follow: A GRAFIK Eye in follow mode has no afterhours settings of its own, but it will carry out the settings of another associated GRAFIK Eye on the link that goes into afterhours mode.

---

A:  Timeclock initiates start of afterhours mode.
    Lights flash and Delay Time begins
B:  Delay Time ends and Afterhours scene is activated
C:  User presses a button to override Afterhours and keep lights on
D:  Lights flash and Delay Time begins
E:  User presses a button to override Afterhours and keep lights on
F:  Lights flash and Delay Time begins
G:  Delay Time ends and Afterhours scene is activated
H:  Timeclock ends Afterhours mode

(continued on the next page)
Timeclock Operation

Set Up Afterhours Mode

1. Enter programming mode (see page 16).
2. Use the Master buttons to highlight “Timeclock”, press the OK button to accept, then use the Master buttons to highlight “Afterhours setup”, and press the OK button to accept.
3. Use the Master buttons to highlight either “Enabled”, “Follow”, or “Disabled”. (See the previous page for explanations of the three modes.) Press the OK button to accept.
4. If “enabled” was selected, use the Master buttons to highlight the values for each setting; press the OK button to accept each and continue to the next.
5. The info screen will confirm that your afterhours settings have been saved.
6. Exit programming mode (see page 16).

End Afterhours Mode

To interrupt the afterhours mode and return to the programmed timeclock event,

1. Enter programming mode (see page 16), select “Timeclock,” and select “End afterhours”. Press the OK button to accept.
2. The info screen will confirm that afterhours mode is ended.
3. Exit programming mode (see page 16).
Associating Pico™ Wireless Controls and GRAFIK Eye® QS Wireless Control Units

When a GRAFIK Eye QS wireless system includes a Pico wireless control, you can use the Pico wireless control as either a scene controller or a zone controller. This page describes using the Pico wireless control as a scene controller; the next page describes using it as a zone controller.

To use the Pico wireless control as a scene controller with a GRAFIK Eye QS Wireless control unit:

1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled” (see page 17).
2. On the Pico, press and hold the top (on) and bottom (off) buttons for 3 seconds. The LED on the Pico will flash slowly, and the scene button LEDs on the GRAFIK Eye QS will all flash.
3. On the GRAFIK Eye QS, the info screen will ask for confirmation that you wish to change the type; press the OK button. Use the Master buttons on the GRAFIK Eye QS to select “Scene”. Press OK to save.

4. To associate the GRAFIK Eye QS with the Pico, press and hold the top scene button on the GRAFIK Eye QS for 3 seconds (until the LEDs all flash).
To disassociate the GRAFIK Eye QS with the Pico, press and hold the bottom scene button on the GRAFIK Eye QS for 3 seconds (until the LEDs stop flashing).
5. On the Pico, press and hold the top (on) and bottom (off) buttons for 3 seconds. The LED on the Pico and the LEDs on associated GRAFIK Eye QS Wireless control units will stop flashing.

Functionality of the Pico control when programmed as a scene controller:

- **Top button**: Scene 1
- **Center round button**: Scene 16
- **Bottom button**: Off

Note: The wireless signal has a range of 30 feet (10 m) through standard construction.
 Associating Pico™ Wireless Controls and GRAFIK Eye® QS Wireless Control Units

To use the Pico wireless controller as a zone controller with a GRAFIK Eye QS Wireless control unit:

1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled” (see page 17).
2. On the Pico, press and hold the top (on) and bottom (off) buttons for 3 seconds. The LED on the Pico will flash slowly, and the scene buttons LEDs on the GRAFIK Eye QS will all flash.
3. On the GRAFIK Eye QS, the info screen will ask for confirmation that you wish to change the type; press the OK button. Use the Master buttons on the GRAFIK Eye QS to select “Zone”. Press OK to save.

4. To assign a zone on the GRAFIK Eye QS to the Pico, use the zone raise/lower buttons for that zone to set the desired preset level, then press and hold the zone raise and lower buttons simultaneously for 1 second (until the LEDs flash at the programmed preset level).
   To unassign a zone on the GRAFIK Eye QS to the Pico, while the zone LEDs are flashing, press and hold the zone raise and lower buttons simultaneously for 1 second (until the LEDs stop flashing and the middle LEDs light).
   Repeat this step to assign levels for all desired zones to the Pico control. Zones assigned to the Pico will have all LEDs flashing in unison, and zones not assigned will have the 3 middle LEDs lit.
5. On the Pico, press and hold the top (on) and bottom (off) buttons for 3 seconds. The LED on the Pico and the LEDs on associated GRAFIK Eye QS Wireless control units will stop flashing.

Functionality of the Pico control when programmed as a zone controller:

Top button: All assigned zones go to 100%

Center round button: All assigned zones go to the programmed preset level
(Press and hold to save current levels on assigned zone as preset)

Bottom button: All assigned zones go to Off

Note: The wireless signal has a range of 30 feet (10 m) through standard construction.
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 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.
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” (see page 17).
2. On the GRAFIK Eye QS 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.
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.

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.

Note: The wireless signal has a range of 30 feet (10 m) through standard construction.
Adjusting Shade Settings (for Wired and Wireless Sivoia® QS Shades/Drapes)

Setting Limits

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

Once shade/blind electronic drive units (EDUs) have been assigned to shade button groups, limits can be set for an EDU only using the shade button group it is assigned to, and a shade button group can set limits only for those EDUs assigned to it.

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

Preset Adjustment: Simple Method

1. Use the raise and lower buttons on the shade button group to set all EDUs (electronic drive units 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

Note: 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.

Note: Entering Assignment mode will cause the shades to move between their open and close limits. Be sure 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 (electronic drive units) 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-inch (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 and Wireless Sivoia® QS Shades/Drapes)
Name a Group of Shades

1. Enter programming mode (see page 16).
2. Use the Master buttons to highlight “Shade Labels” and press the OK button to accept.
3. Use the Master buttons to highlight your desired shade group. Press the OK button to accept.
4. Use the Master buttons to highlight “Custom” and press the OK button to accept.
5. 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.
6. The info screen will confirm that your name has been saved.
7. Exit programming mode (see page 16).
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 feet (10 m) through standard construction.

To **associate** 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 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 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 A to also “listen” to GRAFIK Eye QS B, so that both units will follow each other.

To **disassociate** 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.

**Note:** A control unit can be associated with as many other control units as exist on the link. Any unit can replicate any other unit’s button presses, and any unit’s button presses can be replicated on an unlimited number of control units.

Note: The wireless signal has a range of 30 feet (10 m) through standard construction.

- **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.

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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 A to also “listen” to GRAFIK Eye QS B, so that both units will follow each other.

To **disassociate** 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.

**Note:** A control unit can be associated with as many other control units as exist on the link. Any unit can replicate any other unit’s button presses, and any unit’s button presses can be replicated on an unlimited number of control units.

Note: The wireless signal has a range of 30 feet (10 m) through standard construction.
Diagnostics and Special Settings

Enable/Disable Timeclock
The timeclock can be enabled or disabled as desired.

1. Enter programming mode (see page 16), select “Timeclock,” and select “Enable/Disable”. Press the OK button to accept.
2. Use the Master buttons to highlight either “Enabled” or “Disabled”. Press the OK button to accept.
3. The info screen will confirm that your setting has been saved.
4. Exit programming mode (see page 16).

Enable/Disable IR Receiver
The IR receiver can be enabled or disabled as desired.

1. Enter programming mode (see page 16) and select “IR receiver”. Press the OK button to accept.
2. Use the Master buttons to highlight either “Enabled” or “Disabled”. Press the OK button to accept.
3. The info screen will confirm that your setting has been saved.
4. Exit programming mode (see page 16).

Enable/Disable Backlighting
The backlighting on the info screen can be enabled or disabled as desired.

1. Enter programming mode (see page 16) 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.
3. The info screen will confirm that your setting has been saved.
4. Exit programming mode (see page 16).

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 (see page 16) 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 (see page 16).
Activate System Accessories

Once your GRAFIK Eye® QS with EcoSystem® control unit is programmed, you will need to activate any accessories or interfaces that are a part of the system. Refer to the instructions included with those devices to set them up for proper communication with the control unit.

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.

Language Selection

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

- English
- French
- Spanish
- German
- Italian

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.
<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit does not control loads</td>
<td>Circuit breaker is off</td>
<td>Switch circuit breaker on</td>
</tr>
<tr>
<td>Unit does not turn lights on</td>
<td>Low zone settings</td>
<td>Reprogram scenes to a higher intensity</td>
</tr>
<tr>
<td>LEDs on front of unit are not ON</td>
<td>Miswire</td>
<td>Check wiring</td>
</tr>
<tr>
<td>Circuit breaker is tripping</td>
<td>System short circuit</td>
<td>Find and correct shorts</td>
</tr>
<tr>
<td></td>
<td>System overload</td>
<td>Make sure unit is not overloaded (see Zone Setup section))</td>
</tr>
<tr>
<td>Unit does not control load</td>
<td>Miswire</td>
<td>Check wiring</td>
</tr>
<tr>
<td>Zone control does not work</td>
<td>Disconnected wire</td>
<td>Connect zone wires to loads</td>
</tr>
<tr>
<td></td>
<td>Burned-out lamps</td>
<td>Replace bad lamps</td>
</tr>
<tr>
<td>1 or more zones are “full on” when any scene is on and zone intensity</td>
<td>Miswire</td>
<td>Make sure loads are connected to the right zones</td>
</tr>
<tr>
<td>is not adjustable</td>
<td>Shorted line output</td>
<td>Replace control unit</td>
</tr>
<tr>
<td>A Zone control affects more than one zone</td>
<td>Miswire</td>
<td>Check for shorts between zone outputs</td>
</tr>
<tr>
<td>Keypad buttons are not working</td>
<td>Miswire or loose connection on QS link</td>
<td>Tighten loose connections at PELV terminals on all units and other</td>
</tr>
<tr>
<td>Keypad LEDs are not tracking</td>
<td>Wallstation programming is incorrect</td>
<td>devices in the system</td>
</tr>
<tr>
<td>Faceplate is warm</td>
<td>Normal operation</td>
<td>Solid-state controls dissipate about 2% of the connected load as heat.</td>
</tr>
<tr>
<td>Unit does not allow scene change or zone adjustments</td>
<td>Unit in wrong save mode</td>
<td>Change to correct save mode</td>
</tr>
<tr>
<td>Cannot program fade time from Off</td>
<td>Keypad in system has locked the unit</td>
<td>Check programming and state of keypads</td>
</tr>
<tr>
<td></td>
<td>Fade time from Off not programmable;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>can only program fade time to Off</td>
<td></td>
</tr>
<tr>
<td>Integral (direct-wired) contact closure input does not work</td>
<td>Miswire</td>
<td>Check wiring on contact closure input</td>
</tr>
<tr>
<td></td>
<td>Input closure/opening is not occurring</td>
<td>Check that the input device is opening and closing properly</td>
</tr>
<tr>
<td></td>
<td>Unit is in wrong CCI mode</td>
<td>Change to correct CCI mode</td>
</tr>
<tr>
<td>Timeclock events do not occur</td>
<td>Timeclock is disabled</td>
<td>Enable the timeclock</td>
</tr>
<tr>
<td>Sunrise or sunset events do not occur at the correct time</td>
<td>Time is not set correctly</td>
<td>Set the time</td>
</tr>
<tr>
<td></td>
<td>Date is not set correctly</td>
<td>Set the date</td>
</tr>
<tr>
<td></td>
<td>Location is not set correctly</td>
<td>Set the latitude and longitude correctly</td>
</tr>
<tr>
<td></td>
<td>Holiday schedule is in effect</td>
<td>Remove the holiday schedule from your programming</td>
</tr>
</tbody>
</table>

GRAFIK Eye® QS with EcoSystem® Installation and Operation Guide   60
## Troubleshooting (continued): Wireless Functions (for wireless enabled units only)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Causes</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| Cannot associate a wireless device to a unit | Unit does not support wireless functionality  
Unit in incorrect wireless mode  
Maximum number of devices have been associated with unit | Verify unit has a model number beginning with QSGRJ or QSGRK  
Change wireless mode to “Enabled” (see page 17)  
Remove devices or associate with a different unit |
| Associated wireless devices do not control unit | Wireless device has been unassigned from unit  
Unit in incorrect wireless mode  
Multiple devices were associated to a unit and their settings do not match  
Devices are not receiving power  
Out of range | Reassign wireless device to unit  
Change to correct wireless mode (see page 17)  
Verify wireless device settings are consistent  
Check wireless device’s wiring/battery  
Verify wireless device is within range (30 feet/10 m) |
| Wireless devices operate incorrectly | System is not configured correctly  
Intended settings were not saved | Make sure wireless device settings are programmed as indicated  
Reprogram wireless device settings |
| Wireless devices selectively operate | Multiple devices were associated to a unit and their settings do not match  
Devices are not receiving power  
Out of range | Verify wireless device settings are consistent  
Check wireless device’s wiring/battery  
Verify wireless device is within range (30 feet) |
| Screen often prompts for wireless device association | Unit left in “Enabled” (wireless mode) when not adding devices | Change wireless mode to “Ignore Programming” (see page 17) |

For additional assistance with specific wireless devices or a RadioRA® 2 system, refer to the installation guide that came with the equipment.
<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Causes</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| EDU (electronic drive unit of the shade) will not move | EDU is not powered
Shade fabric is caught on something
EDU is not assigned to a shade button group | Check EDU power
Check and unbind shade fabric
Assign the EDU to a shade button group |
| EDU (electronic drive unit of the shade) does not fully open or fully close | Presets have been set incorrectly
Limits have been set incorrectly
Shade fabric is caught on something | Try using raise/lower buttons on shade button group
Set limits correctly
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 LEDs are off and keypad will not control any shade | No power is going to shade button group | Check and wire power to shade button group |
| Shade button group LEDs are on but keypad will not control any shade | All presets are set to the same height
Communications link is not wired to the EDU
EDU has been unassigned from shade button group | Try using raise/lower buttons on shade button group
Check and wire the EDU link
Reassign the EDU to the shade button group |
| Shade button group does not operate all the shades it is assigned to | EDU has been unassigned from shade button group
All presets are set to the same height
EDU is not wired correctly
Shade button group is not wired correctly | Reassign the EDU to the shade button group
Try using raise/lower buttons on shade button group
Check and rewire EDU
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 |
### Troubleshooting (continued): EcoSystem® Functions

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot add an <em>EcoSystem</em> device to a zone after a “Build System” or “Address all” command has been run</td>
<td>Zone is not set to EcoSystem</td>
<td>Set the zone to EcoSystem</td>
</tr>
</tbody>
</table>
| *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*  
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 level change                   | *EcoSystem* device is not assigned to a zone         | Run the “Address all” command and assign the *EcoSystem* device to a zone |
| System does not recognize sensors connected to a *EcoSystem* device   | Sensor is miswired                                  | Check sensor wiring (refer to the sensor manufacturer’s instructions)  
Run the “Sensor Setup” command                                         |
| Sensor wired directly to an *EcoSystem* device is not found during sensor setup | Sensor is miswired                                  | Check sensor wiring (refer to the sensor installation instructions)  
Create motion (occupancy) or induce light (daylight) within the sensor’s range and run the appropriate “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                                |
| “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       |
Warranty

Lutron Electronics Co., Inc.
One Year Limited Warranty

For a period of one year from the date of purchase, and subject to the exceptions 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 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 MERCHANTABILITY OR 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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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.

These products may be covered under one or more of the following U.S. patents: 5,191,265; 5,430,358; 5,463,286; 5,838,226; 5,848,054; 5,905,442; 5,949,200; 5,982,103; 6,001,205; 6,188,181; 6,390,622; 6,687,487; 6,803,728; 7,391,297; D546,294; D547,733; D547,734; D550,163; D550,164; D550,165; D550,166; D551,179; D552,042; and corresponding foreign patents. Other U.S. and foreign patents may be pending.

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