The GRAFIK Eye QS System allows for control of both lights and shades using a single control unit. Features include pushbutton scene recall, info screen that displays energy savings and status, IR receiver, astronomic timeclock, occupant sensor connection, and backlit buttons that are easy to find and operate.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Unit Capacity (watts)</th>
<th>Zone Capacity (watts)</th>
<th>Unit Dissipation (BTUs/hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSG - 3P240</td>
<td>3000</td>
<td>1200</td>
<td>61.5</td>
</tr>
<tr>
<td>QSG - 4P240</td>
<td>3000</td>
<td>1200</td>
<td>61.5</td>
</tr>
<tr>
<td>QSG - 6P240</td>
<td>3000</td>
<td>1200</td>
<td>61.5</td>
</tr>
</tbody>
</table>

(see page 8 for additional ratings)

All units: 240 V ~ 50/60 Hz
Features and Functions of the GRAFIK Eye® QS System

Hinged faceplate

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

Shade column
Preset and raise/lower buttons with integral LEDs (maximum of 3 columns)

Timeclock status button
Displays current timeclock info

OK button
Used for programming fade time

Info screen
Displays status; programming functions

Master buttons
Temporarily raise and lower lighting levels on unit

Lighting column
Scene buttons with integral scene indicator LEDs

Space for future shade columns

Infrared receiver
For handheld remote use

USB type mini B input

LUTRON

GRAFIK Eye® QS System Installation and Operation Guide 2
Wiring the GRAFIK Eye® QS System

Important Wiring Information

- 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 maximum circuit breaker/MCB for your installation.
- Install in accordance with all local and national electrical codes.
- PELV (Class 2: USA) terminals may be unplugged for ease of IR, occupant sensor, and control wiring.

Caution! Before connecting the loads to the control unit, test the loads for short-circuits.

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

Caution! Do not connect line voltage/mains cable to PELV (Class 2: USA) terminals.

- Earth/ground terminal connection must be made as shown in wiring diagrams.
- 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.
- Test for short-circuits on loads before wiring QS unit.

To connect the line voltage/mains cables to the control unit:
1. Strip 5/16 in. (8 mm) of insulation off the line voltage/mains cables in the wallbox.
2. Connect the line voltage/mains, ground, and load wires to the appropriate terminals on the back of the control unit.

Danger! GRAFIK Eye QS control units must be installed by a qualified electrician in accordance with all applicable regulations and building codes. Improper wiring can result in personal injury or damage to control units or other equipment. Always turn off circuit breaker or remove main fuse from power line before doing any work. To avoid overheating and possible damage to equipment, do not install dimming devices to dim receptacles, motor-operated appliances, or fluorescent lighting not equipped with Lutron Hi-lume®, Eco-10™, or Tu-Wire® electronic dimming ballasts, or 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 System
PELV (Class 2: USA) Cable

**IR Wiring**

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

**Occupant Sensor Wiring**

#18 AWG (1.0 mm²)
- each terminal
- A: OCC SIG
- B: 24 V
- C: OCC COM

**Control Wiring**

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

**Line Voltage/Mains Cables and Load Wiring**

#12 AWG (2.5 mm²)
- each terminal

**Data (terminals 3 and 4):**
- Twisted, shielded pair #22 AWG (1.0 mm²)
- each terminal

Note: Use appropriate wire connecting devices as specified by local codes.
GS System Low-Voltage Control Wiring

- System communication uses PELV (Class 2: USA) low-voltage 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 2,000 ft. (610 m).
- Make all connections in the control unit’s wallbox.
- A QS system can have up to 100 zones and 100 devices (see table at right).
- 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 (1.0 mm²) for data link.
  - Cable is available from Lutron, P/N GRX-CBL-346S (check compatibility in your area).

### T-Tap Wiring Example

![T-Tap Wiring Example Diagram](image)

### Daisy-Chain Wiring Example

![Daisy-Chain Wiring Example Diagram](image)

### System Limits

<table>
<thead>
<tr>
<th>QS Device</th>
<th>Zone Count</th>
<th>Device Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-zone QS</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4-zone QS</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>6-zone QS</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>seeTouch QS</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sivoia QS</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
QS System Low-Voltage Terminal Connections
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. Each wallstation should receive power from only one control unit.

A1 powers wallstation 1 only; terminal 2 terminates at wallstation 1

A2 and A3 have their own power supply; no terminal 2 connection

A3 powers wallstations 2, 3, and 4

A4 powers wallstations 5, 6, and 7

No terminal 2 connection between wallstations 4 and 5; they are powered by different control units

Sivoia QS power panel

P1 powers shade S1 only

Sivoia QS shade

P1

S1
Installing the GRAFIK Eye® QS System

1. Mount a 3 1/2-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 4 1/2 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.

2. 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.

3. Apply the protective overlay to the control unit. See page 14 for instructions for naming zones.

Test the Wiring
1. Restore power.
2. Press the top button on the lighting keypad. The LED will light.
3. Press the zone raise or lower button. Make sure the control unit is dimming all connected loads.
Zone Setup

Assign Load Type

1. Enter programming mode (see page 12).
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.
4. Use the zone raise/lower buttons to choose the load type for that zone. See the list at right for supported load types. Press the OK button to accept.
5. The info screen will display a confirmation screen that your load type has been saved.
6. Exit programming mode (see page 12).

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 must be used with the control unit.
- Not all zones must be connected; however, connected zones must have a minimum load of 25 W.
- No zone may be loaded with more than 1200 W.
- Maximum total lighting load for a magnetic low-voltage (MLV) load is 3000 VA or 2400 watts after transformer. Maximum load per MLV zone is 1200 VA or 960 watts.

Setting Load Types

<table>
<thead>
<tr>
<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>Direct control via GRAFIK Eye QS</td>
</tr>
<tr>
<td></td>
<td>Control via power module</td>
</tr>
<tr>
<td>Incandescent</td>
<td>Incandescent</td>
</tr>
<tr>
<td>MLV (magnetic low-voltage)</td>
<td>MLV</td>
</tr>
<tr>
<td>ELV (electronic low-voltage)</td>
<td>--</td>
</tr>
<tr>
<td>Hi-Lume/Eco-10</td>
<td>--</td>
</tr>
<tr>
<td>Non-dim</td>
<td>Non-dim LOFO or Non-dim FOFO</td>
</tr>
<tr>
<td>Neon/Cold cathode</td>
<td>Neon, CC</td>
</tr>
<tr>
<td>Tu-Wire</td>
<td>Tu-Wire</td>
</tr>
</tbody>
</table>

LUTRON

GRAFIK Eye® QS System Installation and Operation Guide  8
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 12) 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 display a confirmation screen that your minimum level has been saved.
4. Exit programming mode (see page 12).

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. Change the high or low end trim for a zone only if the default setting needs to be adjusted.

1. Enter programming mode (see page 12).
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 display a confirmation screen that your setting has been saved.
6. Exit programming mode (see page 12).
Preprogrammed Button Functionality

The GRAFIK Eye QS System controls lights without special programming. The factory defaults for the lighting column buttons are shown below for both dimmable and non-dim zones. See pages 15 and 16 for methods for changing scene settings.

Lighting Column Button Preprogramming
(Factory Default: Dimmable Loads)
Scene 1: All lights to 100%
Scene 2: All lights to 75%
Scene 3: All lights to 50%
Scene 4: All lights to 25%
All lights Off

Lighting Column Button Preprogramming
(Factory Default: Non-Dim Loads)
Scene 1: All lights On
Scene 2: All lights On
Scene 3: All lights On
Scene 4: All lights On
All lights Off
General Functionality

The info screen goes blank after 20 seconds if there is no button press or fading.

The master raise/lower buttons also 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.

The OK button activates the info screen, which then shows the current scene and its fade time. See page 11 for instructions for adjusting fade time.

The timeclock button activates the info screen and displays the current time, the next event scheduled to occur, and what that next event is.

Info screen: see example screens below

Master buttons temporarily raise or lower all lights (except unaffected, shades, and non-dim zones) on this GRAFIK Eye QS unit

OK button activates the info screen, which shows the current scene’s fade time. Pressing again allows zone adjustment; pressing a third time allows fade adjustment. Pressing OK (when in Save by OK mode) once more saves the adjusted values.

Timeclock button displays the current time, the next event, and when it is scheduled to occur
General Functionality: Programming Mode

Entering and Exiting Programming Mode

**To enter programming mode:**
Press and hold simultaneously the top and bottom buttons on the lighting column for 3 seconds. The LEDs in the lighting 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 simultaneously the top and bottom buttons on the lighting column 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.

**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.
Zone Button Operation

Each column of buttons represents one zone of lights or shades. 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

Non-dim zones:
• Press raise to take light zones to full on
• Press lower to take light zones to off

LEDs indicate level
Note: See page 17 for an explanation of the LED display for each type of load in a zone.
Zone Button Operation

Name a Zone

1. Enter programming mode (see page 12).
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. Press the OK button to accept.
5. Use the master buttons to highlight “Modify” and press the OK button to accept.
6. Use the master buttons to scroll through the characters (lowercase and uppercase letters, plus numbers 0-9). 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 display a confirmation screen that your name has been saved.
8. Exit programming mode (see page 12).
Quick Scene Programming

Save by OK Mode
The default save mode (see page 23) is Save by OK. This mode allows you to quickly set scenes on the lighting column 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.
3. Press the OK button. Use the master buttons to set the desired fade time for this scene.
4. Press and hold the OK button for 3 seconds. The LED on the scene button will flash for 1 second, confirming your setting, and the info screen will display a confirmation screen.
Scene Setup

Program a Scene

1. Enter programming mode (see page 12).
2. Use the master buttons to highlight “Scene setup” and press the OK button to accept.
3. Use the master buttons to select 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. 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. (Fade time value can be 0 to 59 seconds, or 1 to 60 minutes.) Press the OK button to accept.
6. The info screen will display a confirmation screen that your scene has been saved.
7. Exit programming mode (see page 12).
## LED Displays for Lighting Levels

<table>
<thead>
<tr>
<th>Dimmable Lights</th>
<th>Non-Dim Lights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>1-17%</td>
<td></td>
</tr>
<tr>
<td>18-34%</td>
<td></td>
</tr>
<tr>
<td>35-51%</td>
<td></td>
</tr>
<tr>
<td>52-68%</td>
<td></td>
</tr>
<tr>
<td>69-85%</td>
<td></td>
</tr>
<tr>
<td>86-99%</td>
<td></td>
</tr>
<tr>
<td>On/100%</td>
<td></td>
</tr>
</tbody>
</table>

**Unaffected**

(lights are not affected by scene button or master raise/lower)

---

**Legend:**
- 🟢 LED lit
- 🟡 LED off
Timeclock Operation

Set Time and Date

1. Enter programming mode (see page 12).
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 select between 12 Hr and 24 Hr format for time display and press the OK button to accept.
5. Use the master buttons to select 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 display a confirmation screen that your time and date have been saved.
8. Exit programming mode (see page 12).
Timeclock Operation

Set Location

1. Enter programming mode (see page 12).
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 choose 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 display a confirmation screen that your time and date have been saved.
7. Exit programming mode (see page 12).

Set Daylight Saving Time

1. Enter programming mode (see page 12) and select “Timeclock”. Use the master buttons to highlight “Set DLS” and press the OK button to accept.
2. Use the master buttons to highlight “YES” if your location observes daylight saving time, or “NO” if it does not. Press the OK button to accept.
3. If yes, use the master buttons to choose either “USA 2007” (the second Sunday in March to the first Sunday in November), or “Other.” For “Other,” follow the screens to set start and end dates and amount of time.
4. Press the OK button to accept. The info screen will display a confirmation screen that your time and date have been saved.
5. Exit programming mode (see page 12).
Timeclock Operation

Add an Event

1. Enter programming mode (see page 12).
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 select the day of the week for this event; press the OK button to accept.
5. Use the master buttons to select the type of event (fixed time, or relative to sunrise or sunset); press the OK button to accept.
6. For a fixed-time event, use the master buttons to select the hour for your event to begin; press the OK button to accept. Repeat for the minutes.
   For a relative time, 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 select the scene you wish to display for this event. Press the OK button to accept.
8. The info screen will display a confirmation screen that your time and date have been saved.
9. Exit programming mode (see page 12).
Timeclock Operation

Delete an Event

1. Enter programming mode (see page 12).
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 select the day of the week (or holiday) when the event occurs; press the OK button to accept.
5. Use the master buttons to select 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 delete the event. Press the OK button to accept and delete; otherwise, press the timeclock button to go back.
7. The info screen will display a confirmation screen that your event has been deleted.
8. Exit programming mode (see page 12).

View an Event

1. Enter programming mode (see page 12), select “Timeclock,” and select “View events”.
2. Use the master buttons to select the day of the week (or holiday) when the event occurs; press the OK button to accept.
3. Use the master buttons to select 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 12).
Timeclock Operation

Add a Holiday

1. Enter programming mode (see page 12).
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 select “Add holiday”; press the OK button to accept.
5. Use the master buttons to set the month of the holiday; press the OK button to accept. Repeat for the date.
6. The info screen will display a confirmation screen that your holiday has been added.
7. Exit programming mode (see page 12).

Delete a Holiday

1. Enter programming mode (see page 12), select “Timeclock,” select “Holidays,” and select “Delete holiday” (see left).
2. Use the master buttons to select the holiday you wish to delete; press the OK button to accept.
3. The info screen will display a confirmation screen that your event has been deleted.
4. Exit programming mode (see page 12).
Set Save Mode

1. Enter programming mode (see page 12).
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. The info screen will display a confirmation screen that your save mode has been saved.
5. Exit programming mode (see page 12).

Save Modes

Save by OK (default mode) . . Quick scene programming mode (see page 15).
Save always . . . . . . . . . . . . Automatically save any changes made to lighting levels or fade time
Save never . . . . . . . . . . . . . . Do not save any temporary changes to lighting levels or fade time
Four scenes . . . . . . . . . . . . Zone raise/lower buttons are disabled (typically used for rented spaces)
Button disable . . . . . . Only the timeclock button, IR receiver, and wallstations can be used to make temporary changes (typically used in a public space)

Note: Off scene can be changed only through scene setup in program mode. Save modes will change only the fade time in Off scene settings.
Set Up Occupant Sensor

1. Enter programming mode (see page 12).
2. Use the master buttons to highlight “Occ sensor” and press the OK button to accept.
3. Use the master buttons to highlight the scene you want the lights to go to when the room is occupied. If your local lighting code requires it, you may also select “Manual on,” which means the occupant sensor will not automatically turn the lights on when someone enters a room. Instead, a button must be pressed manually.
4. Press OK to accept your choice.
5. Use the master buttons to highlight the scene you want the lights to go to when the room is unoccupied. You may also select “Manual off,” which means the occupant sensor will not trigger an action when the room is unoccupied.
5. Press OK to accept your choice. The info screen will display a confirmation screen that your occupant sensor settings have been saved.
6. Exit programming mode (see page 12).

Occupied and Unoccupied Modes

Occupied, contact closing . . . The occupied scene occurs when an occupant sensor or contact closure connected to the occupant sensor input closes.

Unoccupied, contact opening The unoccupied scene occurs when an occupant sensor or contact closure connected to the occupant sensor input opens.
Activate System Accessories

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

<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>Breaker/MCB is off</td>
<td>Switch breaker/MCB on</td>
</tr>
<tr>
<td>Unit does not turn lights on</td>
<td>Long fade time</td>
<td>Set fade time to 0 seconds</td>
</tr>
<tr>
<td>LED’s on front of unit are not ON</td>
<td>Low zone settings</td>
<td>Reprogram scenes to a higher intensity</td>
</tr>
<tr>
<td>MCB/breaker is tripping</td>
<td>Miswire</td>
<td>Check wiring</td>
</tr>
<tr>
<td></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 (2000 W max)</td>
</tr>
<tr>
<td>Unit does not control load</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZONE control does not work</td>
<td>Miswire</td>
<td>Check wiring</td>
</tr>
<tr>
<td></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 &quot;full on&quot; 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 triac</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 low</td>
<td>Tighten loose connections at PELV terminals on all units and other devices in the system</td>
</tr>
<tr>
<td>Keypad LED's are not tracking</td>
<td>voltage link</td>
<td>Check the keypad function and programming on the units</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>
</tbody>
</table>
## Troubleshooting (continued)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Causes</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<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></td>
<td>Keypad in system has locked the unit</td>
<td>Check programming and state of keypads</td>
</tr>
<tr>
<td>Screen is off</td>
<td>Normal operation</td>
<td>Screen turns off after 20 seconds</td>
</tr>
<tr>
<td>Occupant sensor input does not work</td>
<td>Miswire</td>
<td>Check wiring on contact closure input</td>
</tr>
<tr>
<td></td>
<td>Incorrect programming</td>
<td>Re-program the occupied and unoccupied states of the input</td>
</tr>
<tr>
<td></td>
<td>Input closure/opening is not occurring.</td>
<td>Check that the input device I opening and closing properly</td>
</tr>
<tr>
<td></td>
<td>Timeout on occupant sensor is set too long</td>
<td>Set the occupant sensor timeout to a shorter time</td>
</tr>
<tr>
<td>Timeclock events do not occur. Sunrise or sunset events do not occur at the correct time.</td>
<td>Timeclock is disabled.</td>
<td>Enable the timeclock</td>
</tr>
<tr>
<td></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>
Warranty

Lutron Electronics Co., Inc.
One Year Limited Warranty

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

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

EXCLUSIONS AND RESTRICTIONS

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

1. Damage, malfunction or inoperability diagnosed by Lutron or a Lutron approved third party as caused by normal wear and tear, abuse, misuse, incorrect installation, neglect, accident, interference or environmental factors, such as (a) use of incorrect line voltages, fuses or circuit breakers; (b) failure to install, maintain and operate the unit pursuant to the operating instructions provided by Lutron and the applicable provisions of the National Electrical Code and of the Safety Standards of Underwriter’s Laboratories; (c) use of incompatible devices or accessories; (d) improper or insufficient ventilation; (e) unauthorized repairs or adjustments; (f) vandalism; or (g) an act of God, such as fire, lightning, flooding, tornado, earthquake, hurricane or other problems beyond Lutron’s control.

2. On-site labor costs to diagnose issues with, and to remove, repair, replace, adjust, reinstall and/or reprogram the unit or any of its components.

3. Equipment and parts external to the unit, including those sold or supplied by Lutron (which may be covered by a separate warranty).

4. The cost of repairing or replacing other property that is damaged when the unit does not work properly, even if the damage was caused by the unit.

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

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

IN NO EVENT WILL LUTRON OR ANY OTHER PARTY BE LIABLE FOR EXEMPLARY, CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFITS, CONFIDENTIAL OR OTHER INFORMATION, OR PRIVACY, BUSINESS INTERRUPTION; PERSONAL INJURY; FAILURE TO MEET ANY DUTY, INCLUDING OF GOOD FAITH OR OF REASONABLE CARE; NEGLIGENCE; OR ANY OTHER PECUNIARY OR OTHER LOSS WHATSOEVER, NOR FOR ANY REPAIR WORK UNDERTAKEN WITHOUT LUTRON’S WRITTEN CONSENT ARISING OUT OF OR IN ANY WAY RELATED TO THE INSTALLATION, DEINSTALLATION, USE OR INABILITY TO USE THE UNIT OR OTHERWISE UNDER ANY CONNECTION WITH THE PERFORMANCE OR DEFICIENCY OF ANY WARRANT OR AFFIRMATION INCORPORATING THIS WARRANTY, EVEN IN THE EVENT OF THE FAULT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, BREACH OF CONTRACT OR BREACH OF WARRANTY OF LUTRON OR ANY SUPPLIER, AND EVEN IF LUTRON OR ANY OTHER PARTY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

NOTWITHSTANDING ANY DAMAGES THAT CUSTOMER MIGHT INCUR FOR ANY REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES; LOSS OF PROFITS; LOSS OF SAVINGS; LOSS OF BUSINESS; OR INABILITY TO USE THE UNIT OR OTHERWISE UNDER ANY AGREEMENT INCORPORATING THIS WARRANTY, EXCEPT THAT THE TERM OF THIS WARRANTY WILL BE LIMITED TO THE AMOUNT PAID TO LUTRON BY CUSTOMER FOR THE UNIT THE FOREGOING LIMITATIONS, EXCLUSIONS AND DISCLAIMERS WILL APPLY TO THE MAXIMUM EXTENT ALLOWED BY APPLICABLE LAW, EVEN IF ANY REMEDY FAILS ITS ESSENTIAL PURPOSE.

TO MAKE A WARRANTY CLAIM

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

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

These products may be covered under one or more of the following U.S. patents: 4,797,599; 4,893,082; 4,924,151; 5,191,265; 5,430,356; 5,463,286; 5,949,200; 5,990,635; 6,091,205; 6,188,181; 6,380,692; and corresponding foreign patents. Other U.S. and foreign patents may be pending.

Lutron, the sunburst logo, Sola, and GRAFIK Eye are registered trademarks of Lutron Electronics Co., Inc.

© 2007 Lutron Electronics Co., Inc.

Contact Information

Internet: www.lutron.com
E-mail: product@lutron.com

USA
Lutron Electronics Co., Inc.
6 Sovereign Close
London, E1W 3JF United Kingdom
TEL +44.(0)20.7702.0657
FAX +44.(0)20.7480.8899
FREEPHONE (UK) 0800.282.107
Technical support +44.(0)20.7680.4481

France
Lutron LTC, S.A.R.L.
90 rue de Villiers
92300 Levallois-Perret France
TEL +33.(0).1.41.05.42.80
FAX +33.(0).1.41.05.01.80
FREEPHONE 0800.90.12.18

Germany
Lutron Electronics GmbH
Landsberger Allee 201, 13055 Berlin, Germany
TEL +49.(0)30.9710.4590
FAX +49.(0)30.9710.4591
FREEPHONE 0800.5887.6635

Spain, Barcelona
Lutron CC, S. R. L.
Gran Via del Carlos III, 84, planta 3ª
08028, Barcelona, Spain
TEL +34.93.496.57.42
FAX +34.93.496.57.01
FREEPHONE 0900.948.944

Spain, Madrid
Lutron CC, S. R. L.
Calle Orense, 85
28020 Madrid, Spain
TEL +34.91.567.84.79
FAX +34.91.567.84.78
FREEPHONE 0900.948.944

ASIAN HEADQUARTERS
Singapore
Lutron GL Ltd.
15 Hoe Chiang Road, #07-03
Tower Fifteen, Singapore 089316
TEL +65.6220.4666
FAX +65.6220.4333

China, Beijing
Lutron GL Ltd.
Beijing Representative Office
5th Floor, China Life Tower
No. 16 Chaowai Street, Chaoyang District, Beijing 100020 China
TEL +86.10.5877.1818
FAX +86.10.5877.1816

China, Shanghai
Lutron GL Ltd., Shanghai
Representative Office
Suite 07, 39th Floor, Plaza 66
1286 Nan Jing West Road
Shanghai, 200040 China
TEL +86.21.6288.1473
FAX +86.21.6288.1751

China, Hong Kong
Lutron GL Ltd.
Unit 2808, 28/F
248 Queen’s Road East
Wanchai, Hong Kong
TEL +852.2104.7733
FAX +852.2104.7633

Japan
Lutron Asuka Co. Ltd.
No. 16 Kowa Building, 4F, 1-9-20
Akasaka, Minato-ku
Tokyo 107-0052 Japan
TEL +81.3.5575.8411
FAX +81.3.5575.8420
FREEPHONE 0120.083.417

China Technical Hotlines
Northern China: 10.800.712.1536
Southern China: 10.800.120.1536
Hong Kong: 800.901.849
Indonesia: 001.803.011.3994
Japan: +81.3.5575.8411
Macau: 0800.401
Singapore: 800.120.4491
Taiwan: 0801.137.737
Thailand: 00.81.120.665853
Other countries: +65.6220.4666

Lutron Electronics Co., Inc.
Made and printed in U.S.A. 04/07
P/N: 032-194 Rev. A