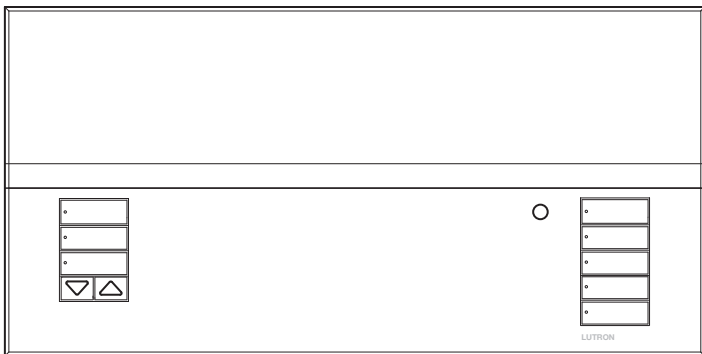




# GRAFIK Eye QS with DALI® Control Unit

**Please Read**



The GRAFIK Eye QS with DALI® control unit allows for control of both lights and window treatments, 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 DALI® bus link can control up to 64 DALI® devices.

**Model Numbers:** QSGRK-6D, QSGRK-8D, QSGRK-16D  
QSGR-6D, QSGR-8D, QSGR-16D  
QSGRM-6D, QSGRM-8D, QSGRM-16D

**Ratings:** 230 V~ 50/60 Hz 100 mA

**Output:** IEC PELV supply: 24 V== 150 mA

DALI® Link: 18 V== 250 mA

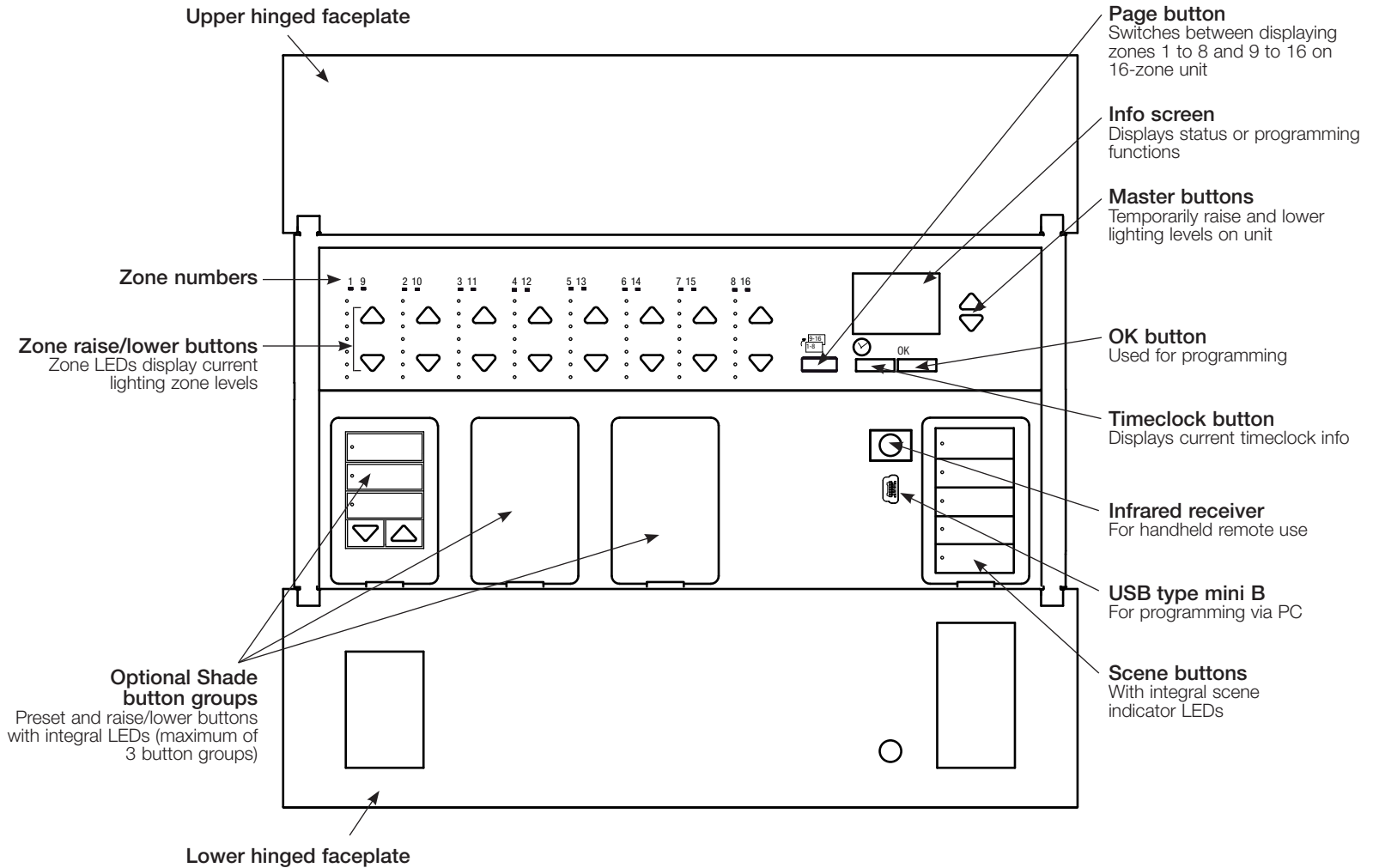
## Quick Installation and Operation Guide

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For additional features and advanced functions, see the complete installation and operation guide at [www.lutron.com/qs](http://www.lutron.com/qs)

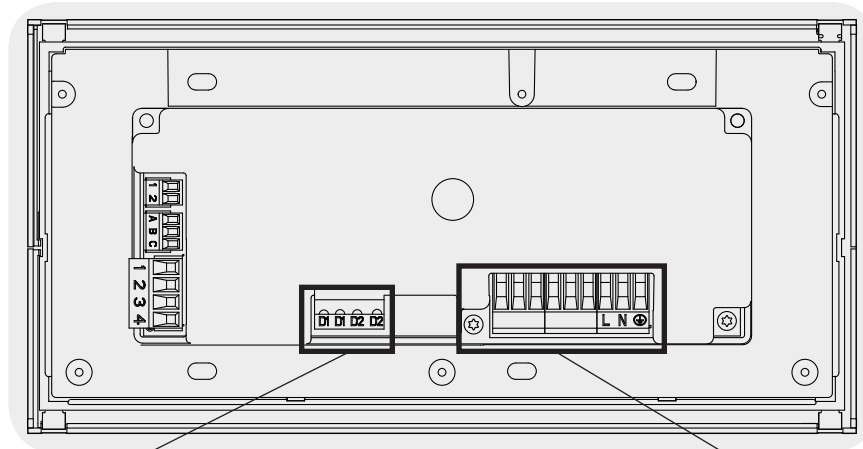
# Features and Functions of the GRAFIK Eye QS with DALI® Control Unit



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

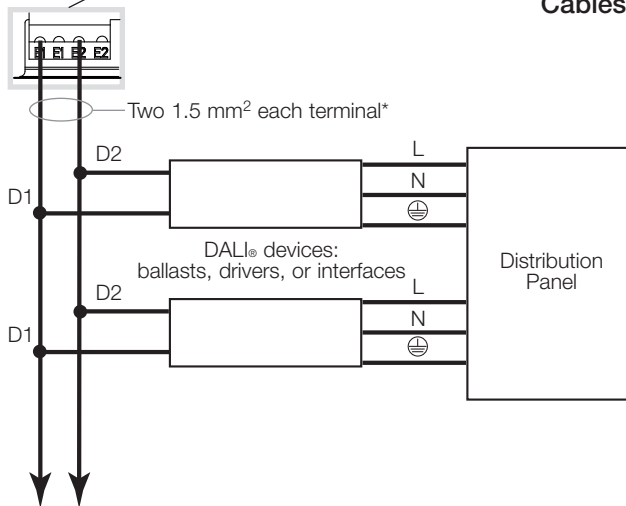
# Wiring the GRAFIK Eye QS with DALI® Control Unit: Overview of Line Voltage/Mains and DALI® Wiring

Two D1 and two D2 connections are provided for ease of wiring, and to provide two connecting points; there is only one DALI® link on the unit.

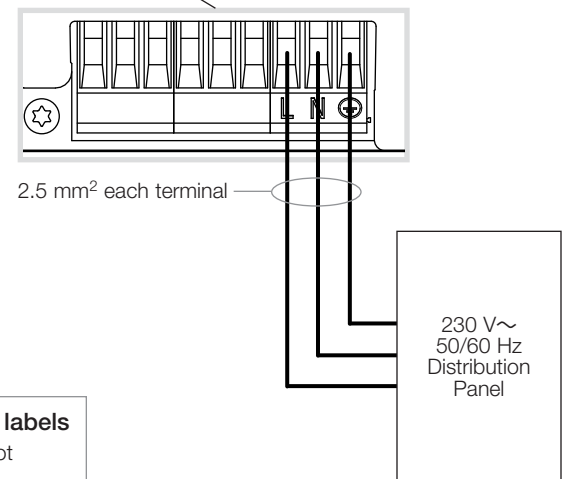


## DALI® Bus Wiring

(See DALI® Bus Wiring Details section for complete specification)



## Line Voltage/Mains Cables and Load Wiring



### Terminal labels

**L:** Line/Hot  
**N:** Neutral  
**⊕:** Ground

\* See page 7 for additional wiring options.

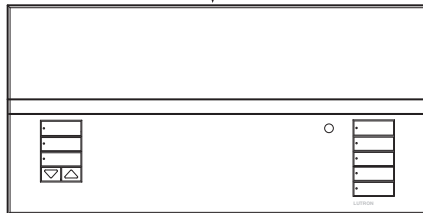
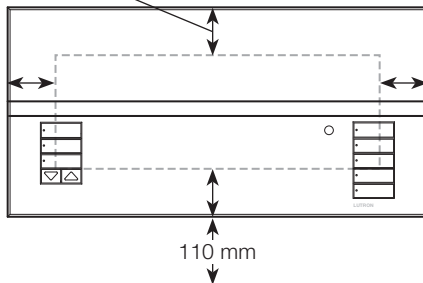
# Wiring the GRAFIK Eye QS with DALI® Control Unit: Line Voltage Wiring Details

- Use properly certified cable for all line voltage/mains cables.
- Proper short-circuit and overload protection must be provided at the distribution panel.
- Install in accordance with all local and national electrical codes.
- IEC PELV terminals may be temporarily unplugged for ease of IR, occupancy sensor, and control wiring.

## Step 1: Install wallbox

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

Allow 25 mm clearance on all sides



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

## Step 2: Check control unit 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 DALI® control unit, test the loads for short-circuits.

- Earth/ground terminal connection must be made as shown in line voltage wiring diagrams.
- Follow all local and national electrical codes when installing IEC PELV wiring with line voltage/mains wiring.

## Step 3: Connect line voltage and loads to control unit

- Strip 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: Line/Hot

N: Neutral

⊕: Ground

The recommended installation torque is 0.6 N·m.

### Notice: Risk of damage to unit.

- Do not connect line voltage/mains cable to IEC PELV terminals.
- Do not install control units to dim receptacles, motor-operated appliances, or fluorescent lighting not equipped with DALI® electronic dimming ballasts, or other DALI® devices approved for your location.
- Control units are designed for residential and commercial use, for indoor use only.
- Control units must be installed by a qualified electrician in accordance with all applicable regulations and building codes.

# Wiring the GRAFIK Eye QS with DALI® Control Unit: DALI® Bus Wiring Details

- DALI® terminal is double-insulated from QS and mains voltage terminals.
- DALI® bus wiring may be run in the same conduit as mains wiring.
- Consult applicable national and local codes for compliance.
- Lutron recommends using two different colors for D1 and D2 (DALI® bus) wires. This will prevent wiring mistakes in junction boxes where several different DALI® bus wires combine.

## Step 1

- Use the wire size chart below to determine which wire size to use based on the length of the DALI® bus.

### Wiring Size and Bus Length

DALI® bus wires D1 and D2 are not polarity-sensitive. DALI® bus length is limited by the wire gauge used for D1 and D2 as follows:

Wire Gauge	Maximum DALI® Bus Length
1.5 mm <sup>2</sup>	275 m
1.0 mm <sup>2</sup>	175 m
0.75 mm <sup>2</sup>	150 m
0.5 mm <sup>2</sup>	100 m

- Use the following instructions for wiring the DALI® bus.
  - Each DALI® bus can have only 1 GRAFIK Eye QS with DALI® control unit connected to it. No additional DALI® bus supplies can be on the link.
  - Up to 64 DALI® devices can be connected to the DALI® bus.
- DALI® bus wiring cables (1.5 mm<sup>2</sup>) are available from Lutron: P/N C-CBL-216-GR-1 and C-PCBL-216-CL-1.

## Step 2



**WARNING! Shock hazard.** May result in serious injury or death. Do NOT wire live. Interrupt power via circuit breaker before wiring and servicing the GRAFIK Eye QS with DALI® control unit.

- Wire the DALI® bus from terminal D1 and terminal D2 to all DALI® devices.

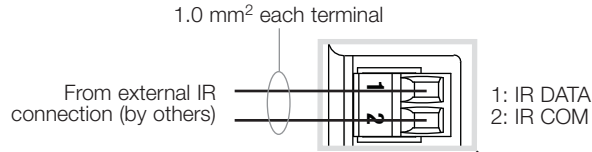
## Step 3

- Turn on circuit breaker to energize.

DALI® Bus	
18 V $\overline{=}$	250 mA

# Wiring the GRAFIK Eye QS with DALI® Control Unit: Overview of IEC PELV Wiring

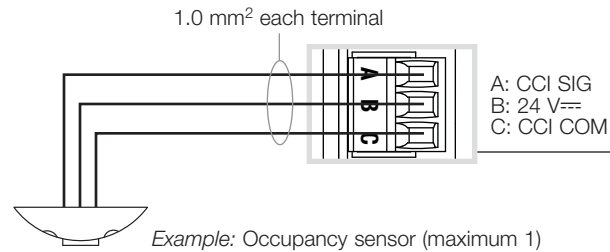
## IR Wiring



## Contact Closure Input Wiring

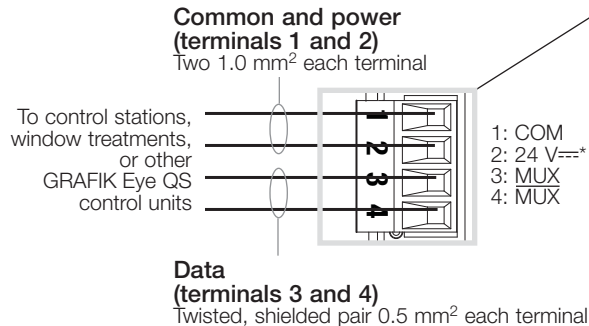
24 V<sub>DC</sub> 50 mA

For settings, see the full installation and operation guide at [www.lutron.com/qs](http://www.lutron.com/qs)

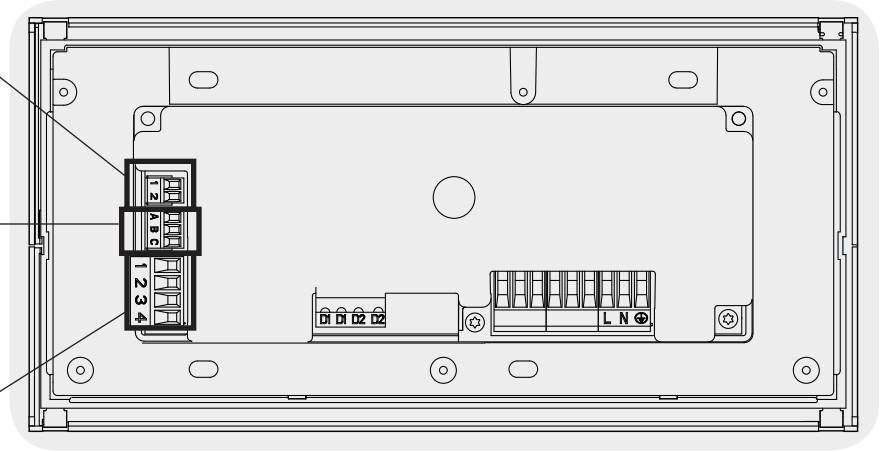


## QS Link Control Wiring

24 V<sub>DC</sub> 100 mA



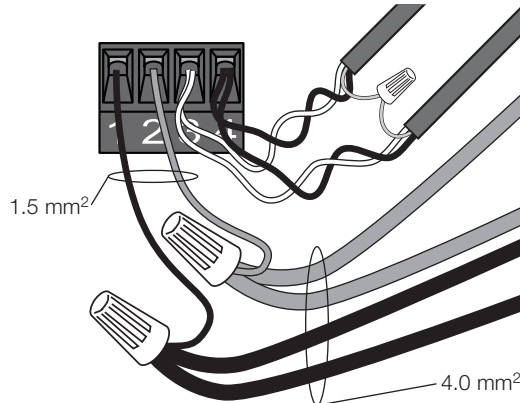
\* Do not connect terminal 2 between any GRAFIK Eye QS control unit and any other power supply, including another GRAFIK Eye QS control unit.  
See "Power Group Wiring" for a detailed wiring example.



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

# Wiring the GRAFIK Eye QS with DALI® Control Unit: QS Link Control Wiring Details

- System communication uses IEC PELV wiring.
- Follow all local and national electrical codes when installing IEC PELV wiring with line voltage/mains wiring.
- Each QS link terminal can accept only two 18 AWG (1.0 mm<sup>2</sup>) wires (two 12 AWG [4.0 mm<sup>2</sup>] conductors will not fit). Connect using appropriate wire connectors as shown to the right.
- Total length of control link must not exceed 610 m.
- Make all connections in the control unit's wallbox.
- Wiring can be T-tapped or daisy-chained.
- IEC PELV 24 V $\overline{\text{---}}$  150 mA.

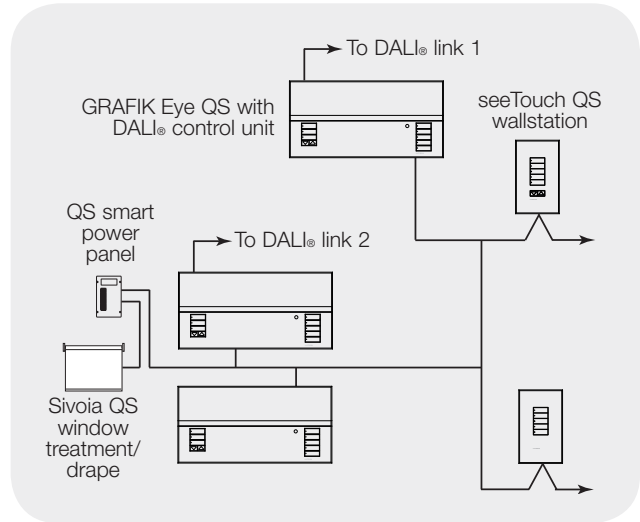


## System Limits

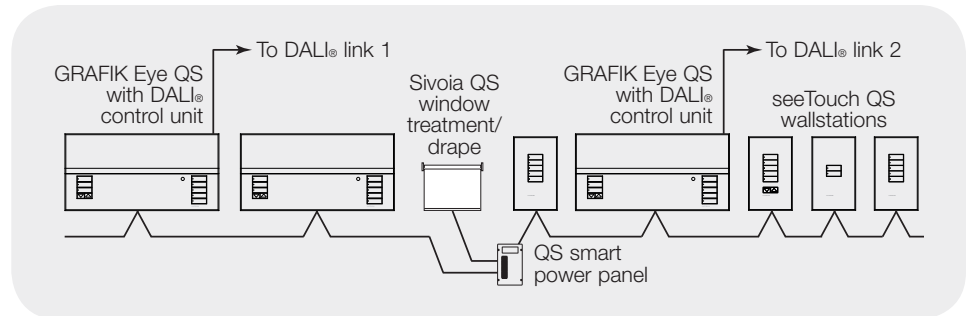
The QS wired communication link is limited to 100 devices or 100 zones.

The GRAFIK Eye QS control unit supplies 3 Power Draw Units (PDUs) on the QS link. Refer to the QS Link Power Draw Units specification submittal (Lutron P/N 369405) for more information about Power Draw Units.

## T-Tap Wiring Example



## Daisy-Chain Wiring Example



## Wire Sizes (check compatibility in your area)

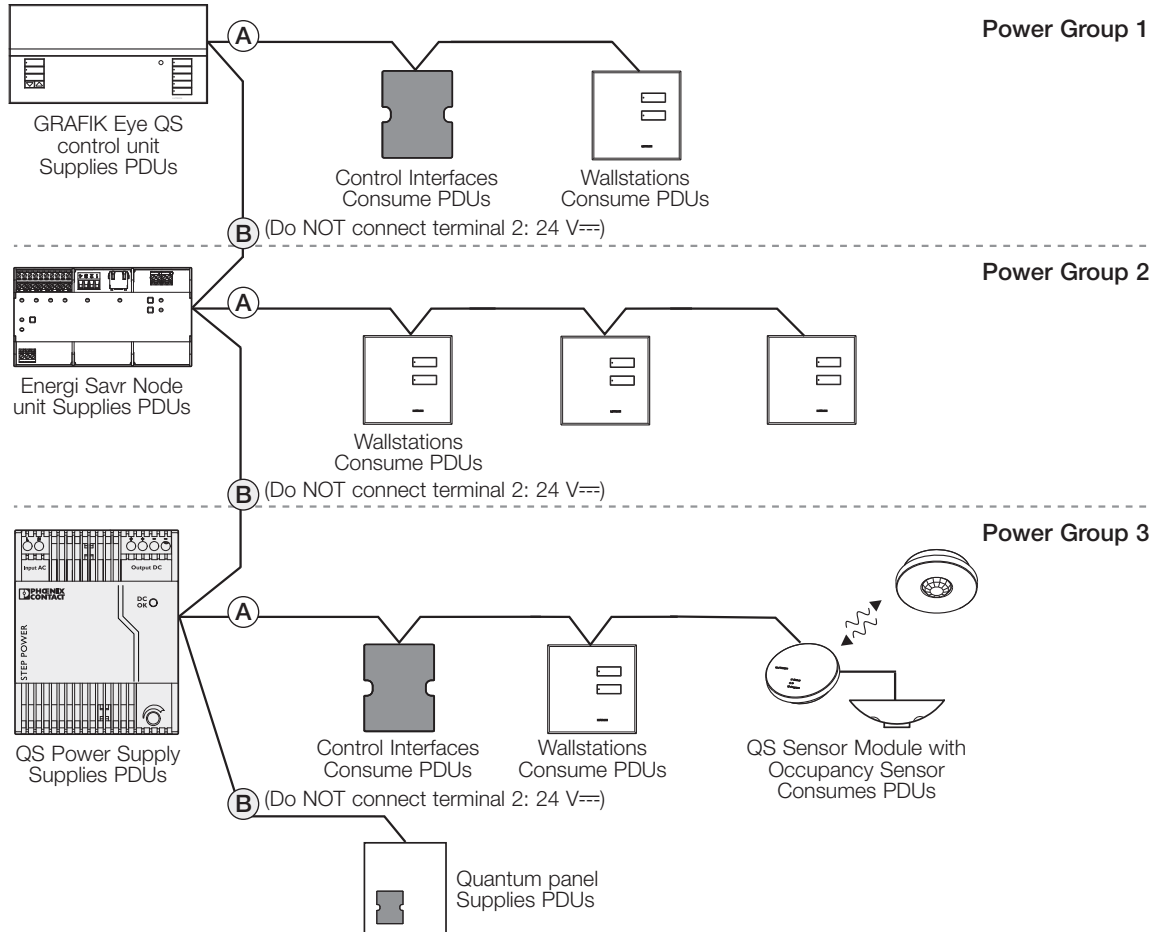
QS Link Wiring Length	Wire Gauge	Lutron Cable Part Number
Less than 153 m	Power (terminals 1 and 2): 1 pair 1.0 mm <sup>2</sup>	GRX-CBL-346S; GRX-PCBL-346S
	Data (terminals 3 and 4): 1 twisted, shielded pair 0.5 mm <sup>2</sup>	
153 to 610 m	Power (terminals 1 and 2): 1 pair 4.0 mm <sup>2</sup>	GRX-CBL-46L; GRX-PCBL-46L
	Data (terminals 3 and 4): 1 twisted, shielded pair 0.5 mm <sup>2</sup>	

# Wiring the GRAFIK Eye QS with DALI® Control Unit: Power Group Wiring Example

On the QS link, some devices supply power and some devices consume power. Each device has a specific number of Power Draw Units (PDUs) that it either supplies or consumes. A Power Group consists of one device that supplies power and one or more devices that consume power; each Power Group may have only one power-supplying device. Refer to the QS Link Power Draw Units specification submittal (Lutron P/N 369405) for more information about PDUs.

Within Power Groups on the QS link, connect all 4 terminals (1, 2, 3, and 4), shown by the letter A in the diagram. Between devices on the QS link that supply power, connect only terminals 1, 3, and 4 (NOT terminal 2), shown by the letter B on the diagram.

Wiring can be T-tapped or daisy-chained.



- (A)** Connect all 4 terminals *within* a power group:  
 1: Common  
 2: 24 V==  
 3 and 4: Data
- (B)** Connect only 3 terminals *between* power groups:  
 1: Common  
 2: 24 V== **Do NOT connect**  
 3 and 4: Data

# Completing Installation of the GRAFIK Eye QS with DALI® Control Unit

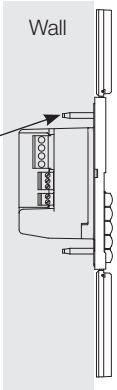
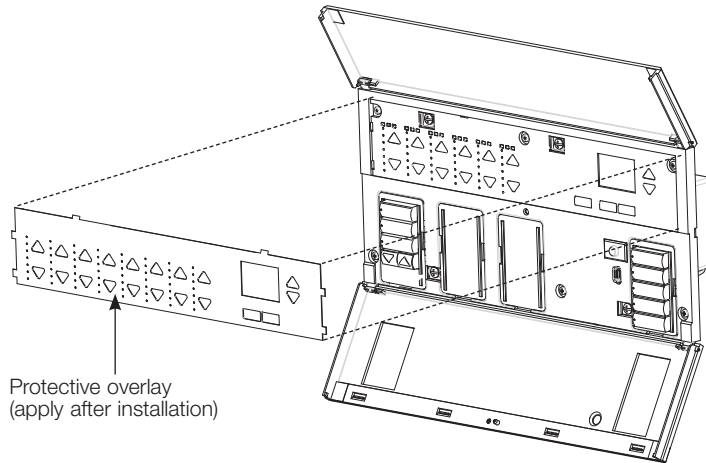
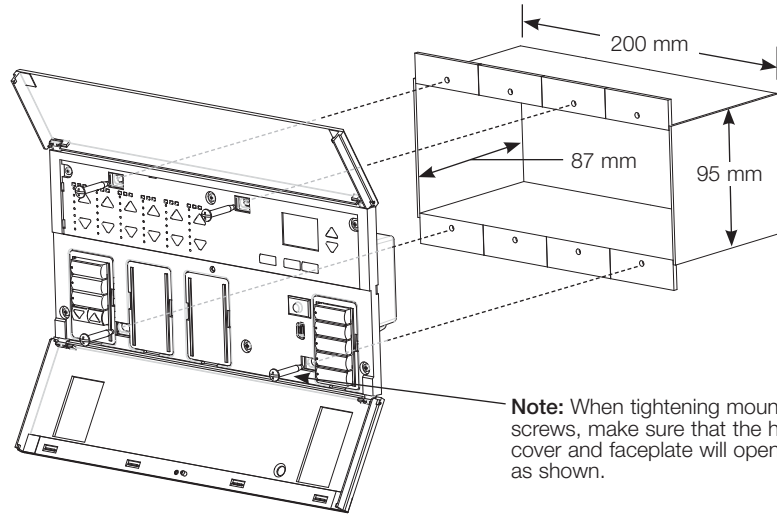
1. Mount the control unit in the wallbox as shown using the four screws provided.

**Note:** Follow all local and national electrical codes when installing IEC PELV/NEC® Class 2 wiring with line voltage/mains wiring.

2. Verify installation:

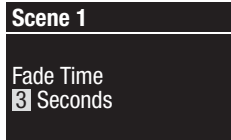
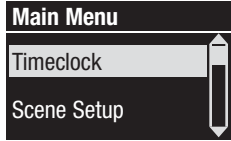
- Restore power.
- Press the top scene button. The LED will light.
- Press the zone raise and lower buttons. Make sure the control unit is dimming all connected loads.

3. Apply the protective overlay to the control unit.



# Programming Mode

## Entering and Exiting Programming Mode



### Entering programming mode

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

### Exiting programming mode

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

## Navigating Menus in Programming Mode

### Master Buttons

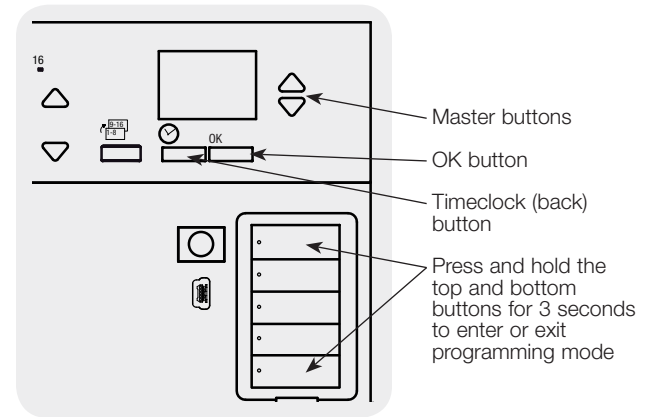
The Master buttons allow you to move through the menu choices. The current choice is highlighted on the info screen.

### OK Button

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

### Timeclock Button

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



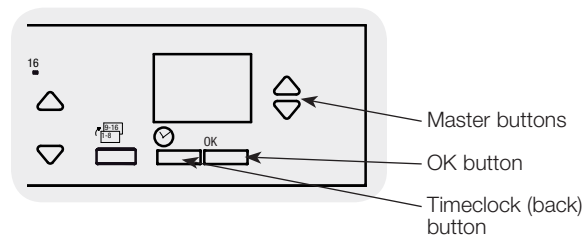
## Wireless Mode

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

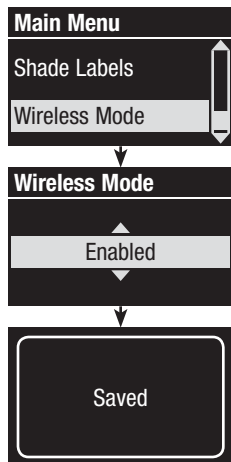
Units supporting wireless communication are labeled “GRAFIK Eye QS Wireless” on the front label of the unit.

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

- 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 operates normally but ignores any wireless devices in programming mode.



### Changing the wireless mode of the GRAFIK Eye QS Wireless control unit



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

**Note:** The wireless signal has a range of 9 m through standard construction or 18 m line-of-sight.

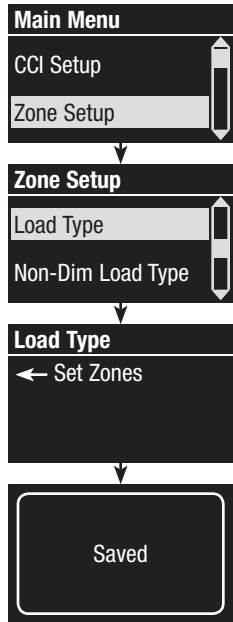
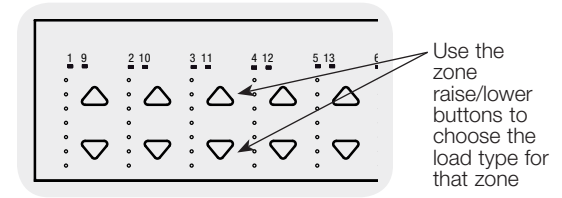
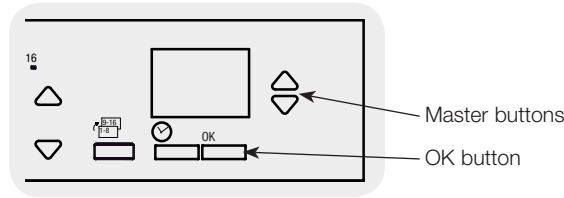
# Zone Setup

## Assigning Load Types

Load types supported by the GRAFIK Eye QS with DALI®:

- Digital load
- DMX
- RGB/CMY DMX
- Non-dim digital

**Note:** 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.



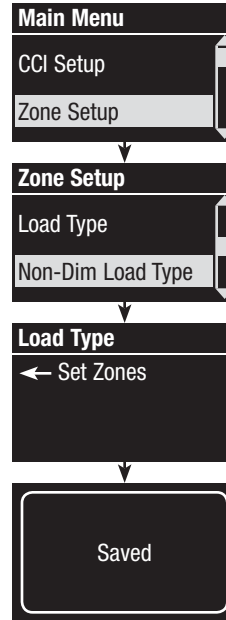
1. Enter programming mode.
2. Use the Master buttons to highlight "Zone setup" and press the OK button to accept.
3. Use the Master buttons to highlight "Load type". Press the OK button to accept.
4. Use the zone raise/lower buttons to choose the load type for that zone. See the list above for supported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

## Assigning Non-Dim Load Type

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

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

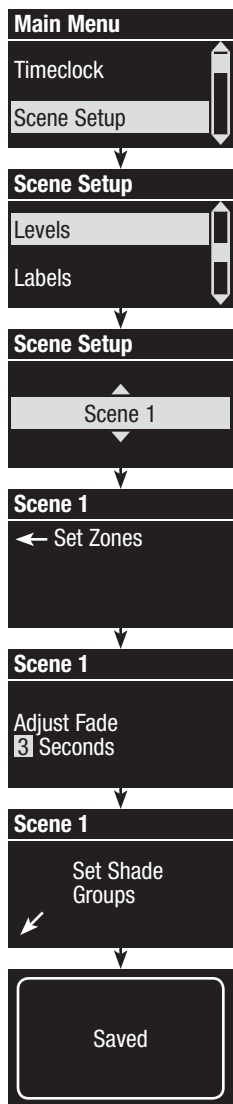
Scenes made up of both dim and non-dim load types will toggle the non-dim loads before the dim loads in a "First" on/off configuration, and after the dim loads in a "Last" on/off configuration.



1. Enter programming mode.
2. Use the Master buttons to highlight "Zone setup" and then press the OK button to accept.
3. Use the Master buttons to highlight "Non-Dim Load type". Press the OK button to accept.
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.

# Scene Setup

## Setting Zone Levels, Fade Rates, and Window Treatment (Shade) Group Actions



1. Enter programming mode.
2. Use the Master buttons to highlight “Scene setup” and press the OK button to accept.
3. Use the Master buttons to highlight “Levels” to adjust lighting and/or window treatment 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 that 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.

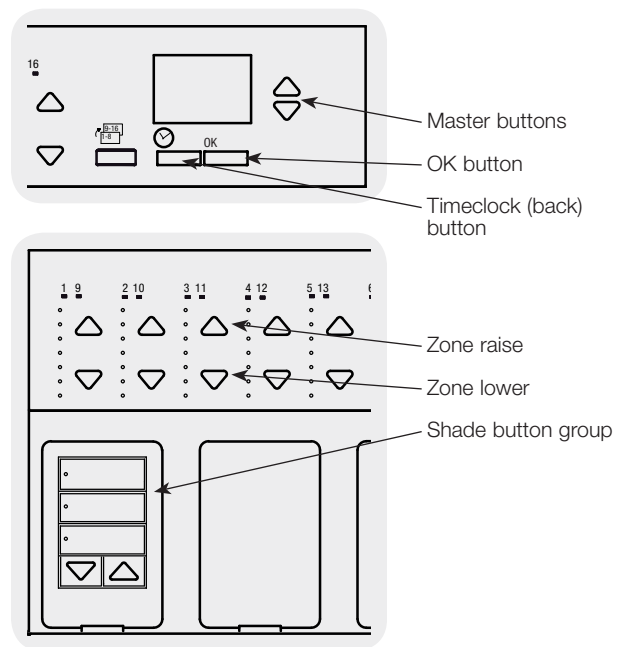
5. Use the Master buttons to set the fade time for this scene. Press the OK button to accept.

6. **Note:** This step is applicable only if you have window treatments (shades) on your system. If you do not have or do not wish to set shade groups for this scene, press the OK button to skip this step.

Set each shade group to the desired level for this scene. When all shade groups are at the desired level, press the OK button to accept.

For window treatment programming, see the complete installation and operation guide at [www.lutron.com/qs](http://www.lutron.com/qs).

7. The info screen will confirm that your scene has been saved.
8. Exit programming mode.

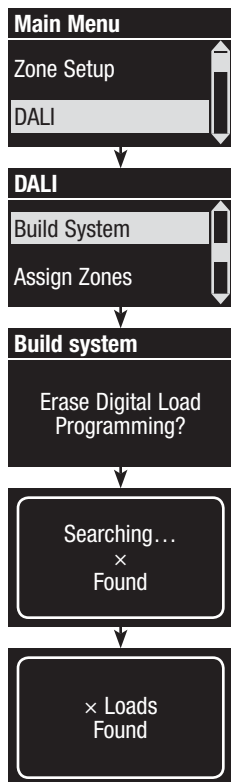


# DALI® Setup

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

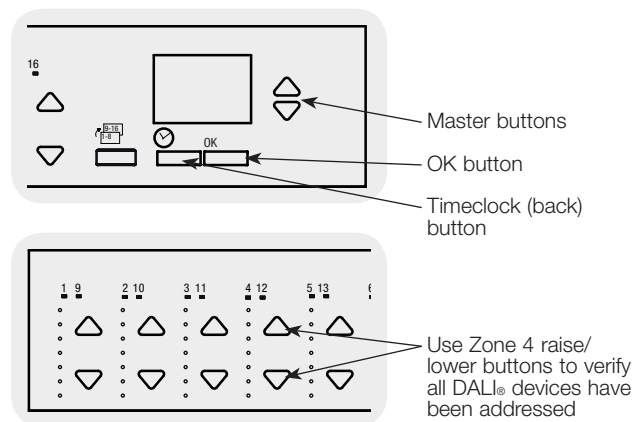
**Note:** All existing DALI® programming will be deleted when the “Build System” command is run, including DALI® sensor programming on the GRAFIK Eye QS control unit.

## Building the System



1. Enter programming mode.
2. Use the Master buttons to highlight “DALI” 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 DALI® devices, and find sensors on the system.
5. Exit programming mode.

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

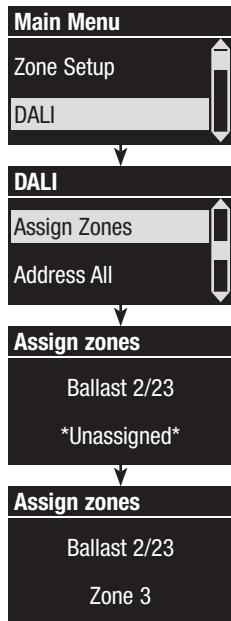


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## DALI® Setup (continued)

### Assigning/Unassigning a DALI® Device to a Zone

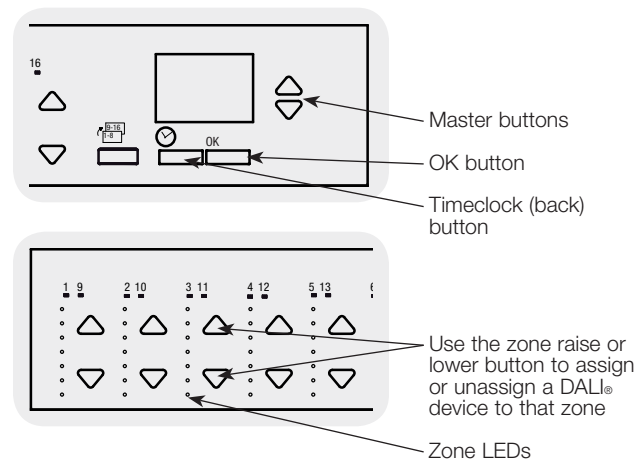
DALI® devices must be addressed on the system (see previous page) before assigning or unassigning to a zone.



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

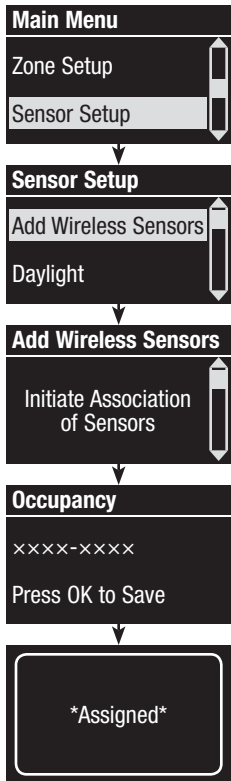
#### Notes

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



# Occupancy Sensor Setup

## Associating Wireless Occupancy Sensors and GRAFIK Eye QS Wireless Control Units (for wireless-enabled units only)

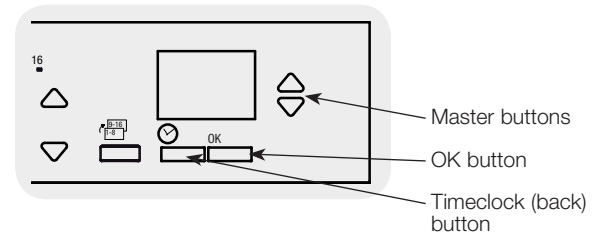


1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled”.
2. Enter programming mode.
3. Use the Master buttons to highlight “Sensor setup” and press the OK button to accept.
4. Use the Master buttons to highlight “Add wireless sensors” and press the OK button to accept.
5. Press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

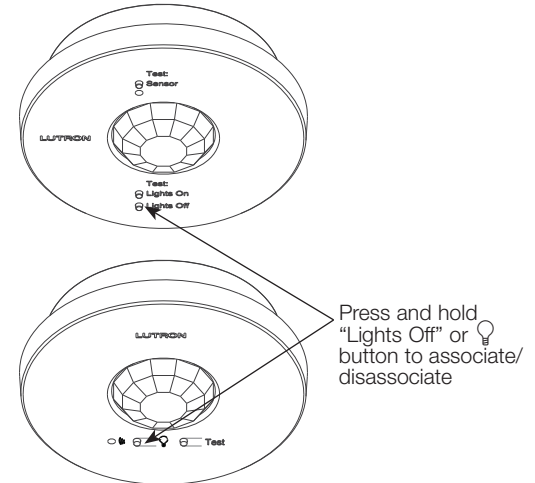
### Associating Wireless Occupancy Sensors through QS Sensor Modules (QSM)

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

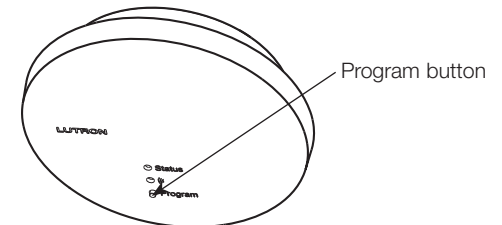
**Note:** The wireless signal has a range of 9 m through standard construction or 18 m line-of-sight.



### Radio Powr Savr Occupancy Sensors



### QS Sensor Module (QSM)



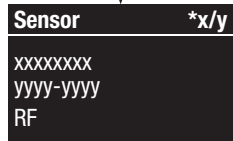
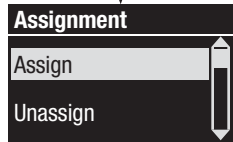
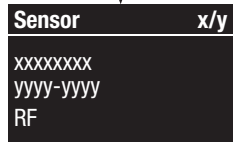
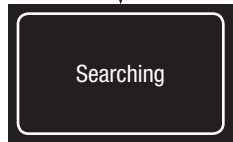
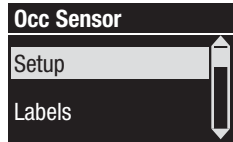
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# Occupancy Sensor Setup (continued)

## Scene Mode

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

### Selecting Sensors

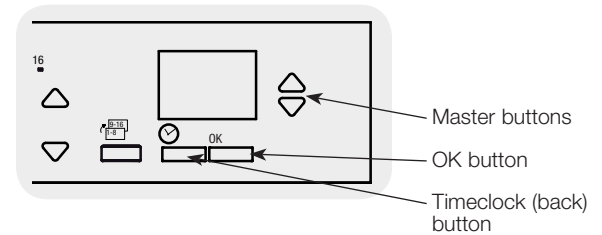
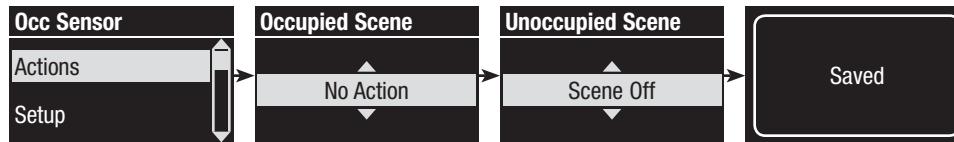


1. If not already done, associate occupancy sensors and set to "Scene Mode".
2. Use the Master buttons to highlight "Setup" and press the OK button to accept. The info screen will display "Searching" while the unit detects available occupancy sensors.
3. Use the Master buttons to scroll through the list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

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

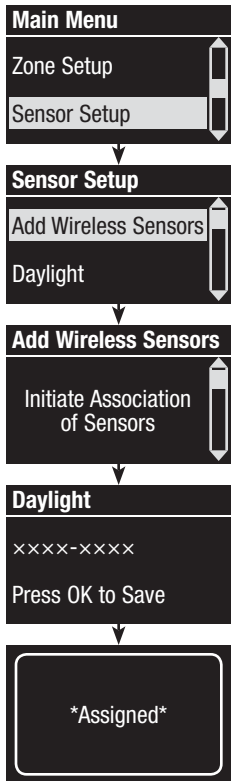
### Setting the Sensor Action

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



# Daylight Sensor Setup

## Associating Wireless Daylight Sensors and GRAFIK Eye QS Wireless Control Units (for wireless-enabled units only)

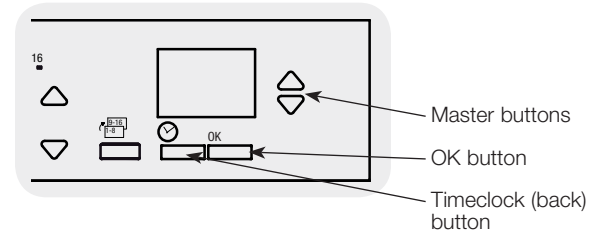


1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled”.
2. Enter programming mode.
3. Use the Master buttons to highlight “Sensor setup” and press the OK button to accept.
4. Use the Master buttons to highlight “Add wireless sensors” and press the OK button to accept.
5. Press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

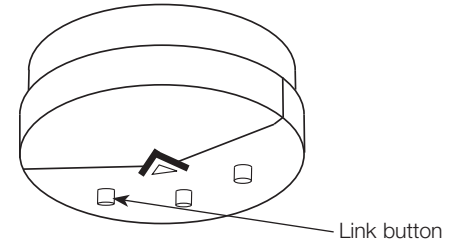
### Associating Wireless Daylight Sensors through QS Sensor Modules (QSM)

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

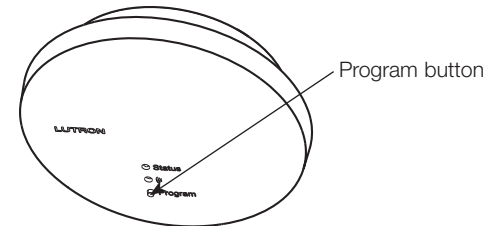
**Note:** The wireless signal has a range of 9 m through standard construction or 18 m line-of-sight.



### Radio Powr Savr Daylight Sensor



### QS Sensor Module (QSM)



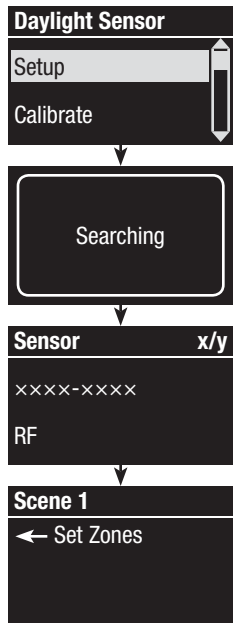
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# Daylight Sensor Setup (continued)

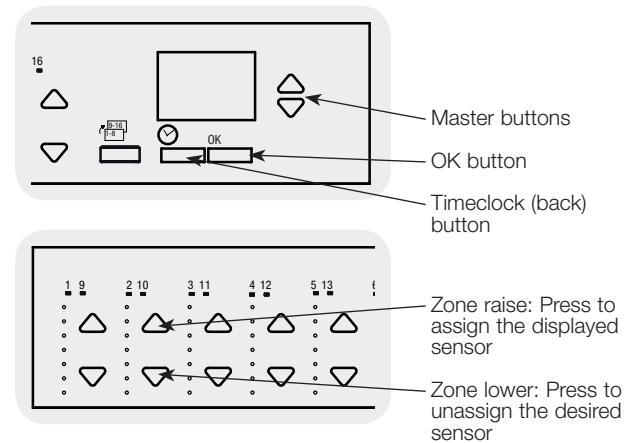
## Zone Mode

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

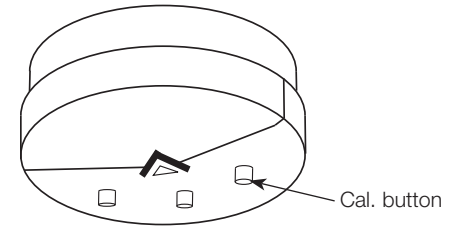
### Selecting Sensors



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



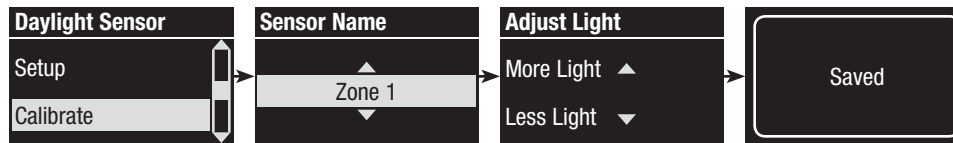
### Radio Powr Savr Daylight Sensor



### Calibrating the Sensors

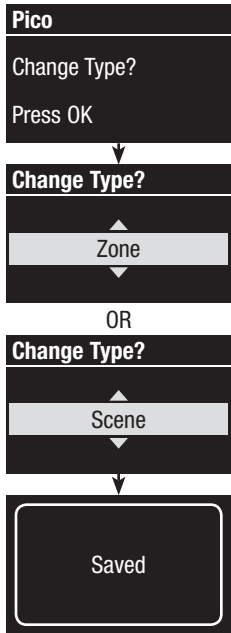
1. Put any wireless Radio Powr Savr daylight sensors associated with the desired zones into Calibrate Mode: Press and hold the “Cal” button for 6 seconds until the sensor flashes.
- Note:** After 5 minutes, Calibrate Mode will timeout, and the sensor will return to normal mode.
2. Press the Timeclock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

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



# Pico Wireless Control Setup

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

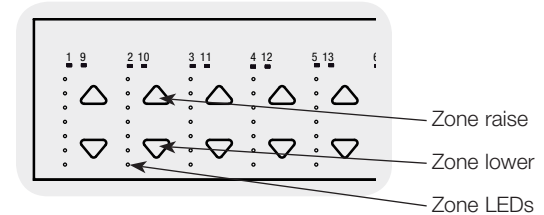
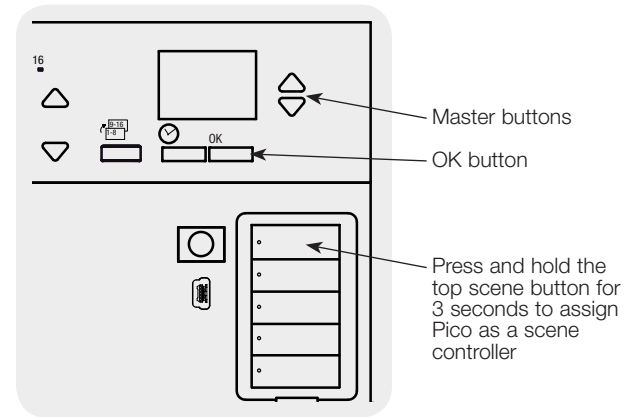


1. Make sure the wireless mode of the GRAFIK Eye QS control unit is “Enabled”.
2. On the Pico wireless control, press and hold the top (on) and bottom (off) buttons for 3 seconds. The info screen on the GRAFIK Eye QS control unit will display the Pico options. Press the OK button on the GRAFIK Eye QS control unit to select the desired operation type for the Pico.
  3. Assign Pico wireless control.
    - a. To assign the Pico wireless control as a zone controller, use the Master buttons to select “Zone” and press the OK button to accept. Use the zone raise/lower buttons for a zone to select a desired preset level, and then press the zone raise and lower buttons simultaneously for 1 second (until the zone LEDs flash at the programmed preset level). Repeat for all zones you wish to control with the Pico wireless control.
 

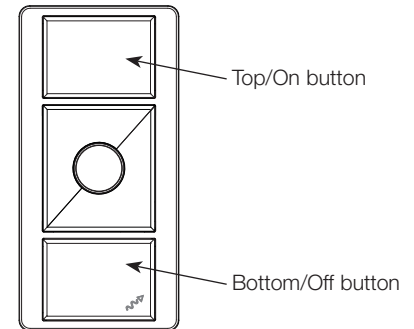
OR

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

**Note:** The wireless signal has a range of 9 m through standard construction or 18 m line-of-sight.



### Pico Wireless Control



# Troubleshooting

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

## Troubleshooting: Wireless Functions (for wireless-enabled units only)

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

## Troubleshooting: DALI® Functions

Symptom	Possible Causes	Solution
“Build System” command does not find DALI® loads	D1 and/or D2 are miswired or not connected	Check wiring; if wiring is correct, call Lutron Technical Support
Cannot add a DALI® device to a zone after a “Build System” or “Address all” command has been run	Zone is not set to Digital	Set the zone to Digital
DALI® device at full brightness cannot be controlled	D1 and D2 are not connected	Check D1 and D2 connections on the back of the GRAFIK Eye QS with DALI® control unit
	DALI® link is overloaded	Reduce number of DALI® devices on link to 64 or fewer Check voltage: Minimum voltage of 12 V $\overline{=}$
DALI® devices do not flash when running the “Build System” command	DALI® devices are not addressed	Address DALI® devices
	DALI® devices are miswired	Check D1 and D2 wiring, and power wiring to DALI® devices
DALI® device is not affected by a zone level change	DALI® device is not addressed	Run the “Address all” command and assign the DALI® device to a zone
	DALI® device is not assigned to a zone	Assign DALI® device to a zone
DALI® device light levels can be lowered, but not raised to full On	DALI® device is being affected by the daylight sensors	Recalibrate the associated daylight sensors

# Warranty

## Lutron Electronics Co., Inc. One Year Limited Warranty

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

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

### EXCLUSIONS AND RESTRICTIONS

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

1. Damage, malfunction or inoperability diagnosed by Lutron or a Lutron approved third party as caused by normal wear and tear, abuse, misuse, incorrect installation, neglect, accident, interference or environmental factors, such as (a) use of incorrect line voltages, fuses or circuit breakers; (b) failure to install, maintain and operate the unit pursuant to the operating instructions provided by Lutron and the applicable provisions of the National Electrical Code and of the Safety Standards of Underwriter's Laboratories; (c) use of incompatible devices or accessories; (d) improper or insufficient ventilation; (e) unauthorized repairs or adjustments; (f) vandalism; or (g) an act of God, such as fire, lightning, flooding, tornado, earthquake, hurricane or other problems beyond Lutron's control.
2. On-site labor costs to diagnose issues with, and to remove, repair, replace, adjust, reinstall and/or reprogram the unit or any of its components.
3. Equipment and parts external to the unit, including those sold or supplied by Lutron (which may be covered by a separate warranty).
4. The cost of repairing or replacing other property that is damaged when the unit does not work properly, even if the damage was caused by the unit.

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

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.

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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. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### DECLARATION

 Lutron Electronics hereby declares that QSGRK- models are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the DoC can be obtained by writing to Lutron Electronics Co., Inc., 7200 Suter Road, Coopersburg, PA 18036 USA.

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# Contact Information

Internet: [www.lutron.com](http://www.lutron.com)  
E-mail: [product@lutron.com](mailto:product@lutron.com)

## World Headquarters

### USA

Lutron Electronics Co., Inc.  
7200 Suter Road  
Coopersburg, PA 18036-1299  
TEL: +1.610.282.3800  
FAX: +1.610.282.1243  
Customer Assistance:  
1.844.LUTRON1

## North and South America Customer Assistance

USA, Canada, Caribbean: 1.844.LUTRON1  
Mexico: +1.888.235.2910  
Central/South America: +1.610.282.6701

## European Headquarters

### United Kingdom

Lutron EA Limited  
125 Finsbury Pavement  
4th floor, London EC2A 1NQ  
United Kingdom  
TEL: +44.(0)20.7702.0657  
FAX: +44.(0)20.7480.6899  
FREEPHONE (UK): 0800.282.107  
Customer Assistance: +44.(0)20.7680.4481

## Asian Headquarters

### Singapore

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

## Asia Customer Assistance

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: 00.801.137.737  
Thailand: 001.800.120.665853  
Other countries: +65.6220.4666

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P/N 032514 Rev. A 04/2018