

# GRAFIK Eye. QS System

## Installation and Operation Guide

The *GRAFIK Eye* QS System allows for control of both lights and shades or window treatments 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.



Model Number	Unit Capacity (watts)	Zone Capacity (watts)	Unit Dissipation (BTUs/hour)
QSG - 3P120	2000	800	61.5
QSG - 4P120	2000	800	61.5
QSG - 6P120	2000	800	61.5
(and page 0 for additional re	tin go)		

(see page 8 for additional ratings)

All units: 120 V ~~ 50/60 Hz

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## Features and Functions of the GRAFIK Eye® QS System





## 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 control 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. 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.



**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<sup>TM</sup>, 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





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## QS 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 mm<sup>2</sup>) 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 below).
- Wiring can be T-tapped or daisy-chained.
- Wire sizes:
  - Two #18 AWG (1.0 mm<sup>2</sup>) conductors for control power.
  - One twisted, shielded pair of #22 AWG (1.0 mm<sup>2</sup>) for data link.
  - Cable is available from Lutron: GRX-CBL-S-500 (non-plenum) GRX-CBLP-S-500 (plenum rated). Check compatibility in your area.





#### **Daisy-Chain Wiring Example**



	System Limits			L supply panel
	QS Device	Zone Count	Device Count	
	3-zone QS	3	1	
	4-zone QS	4	1	
<u>.</u>	6-zone QS	6	1	
	seeTouch QS	0	1	
	Sivoia QS	1	1	
	QS smart power supply panel	0	1	



## **QS System Low-Voltage Terminal Connections**

Control units shown in rear view





## Installing the GRAFIK Eye® QS System

- 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.



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## Zone Setup

#### Assign Load Type



Setting Load Types	Choose this load type from the menu on the <i>GRAFIK Eye</i> QS:		
Fixture load type	Direct control via <i>GRAFIK Eye</i> QS	Control via power module	
Incandescent MLV (magnetic low-voltage) ELV (electronic low-voltage) <i>Hi-Lume/Eco-10</i> Non-dim Neon/Cold cathode <i>Tu-Wire</i>	Incandescent MLV  Non-dim LOFO or Non-dim FOFO Neon, CC <i>Tu-Wire</i>	Power module Power module Power module Fluorescent module Non-dim LOFO or Non-dim FOFO Neon, CC <i>Tu-Wire</i>	



#### 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 800 W.
- Maximum total lighting load per unit is 16 A.
- Maximum total lighting load for a magnetic low-voltage (MLV) load is 2000 VA or 1600 watts after transformer. Maximum load per MLV zone is 800 VA or 600 watts.



## Zone Setup

#### Set High End or Low End

Main menu	High
	maxir
Occ sensor	dimm
Zone setup	auton
	progr
*	end ti
Zone setup	settin
	1. Enter
High end	2. Use tl
Low end	setup
	accep
	3. Use tl
Low end	end" of
Set trim using	low er
zono controls	4. Use t
Zone controis	the hi
*	zone.
Zone 2	The ir
	numb
	Press
10%	5. The ir
	confir
V	been
	6. Exit p
Saved	

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).
- 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.

- The info screen will display a confirmation screen that your setting has been saved.
- 6. Exit programming mode (see page 12).





### 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).



## **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 through 17 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%



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



Shade Column Button Preprogramming (Factory Default: *Sivoia* QS shades) All shades fully open All shades to 50% All shades fully closed Lower/Raise all shades



## **General Functionality**

OK

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

The master 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

which then shows the current scene and its 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. Pressing a second time displays the location and the sunrise/sunset times.



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. In Save Always mode, allows fade time adjustment. In

Save by OK mode, pressing a second time allows zone adjustment; pressing a third time allows fade adjustment.



Timeclock button displays the current time and the next scheduled event. Pressing when in Program mode functions as a

"back" button.



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## General Functionality: Programming Mode

#### **Entering and Exiting Programming Mode**

#### Main menu Timeclock

Scene setup

#### 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.

## programming mode

Info screen display

when you enter

Fade time 3 seconds

Info screen display when you exit programming mode <u>To exit programming mode:</u> 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. 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



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## **Zone Button Operation**

#### Name a Zone





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Saved

## **Quick Scene Programming**

#### Save Always Mode

The default save mode (see page 28) is Save Always. 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. Press the OK button.
- 3.To set the fade time for this scene, press the OK button, then use the master buttons to set the desired fade time. Press the OK button to save.

**Note:** Using the master buttons to raise or lower lighting settings is still temporary in Save Always mode.



3. Use the master buttons to set fade time.



## Scene Setup

#### Program a Scene







## Scene Setup

#### Name a Scene



1: A



- 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 change the scene number to 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 0-9). 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).





Saved

## LED Displays for Lighting Levels

Dimmable Lights	Non-Dim Lights
Off	•
1-17%	
18-34%	
35-51%	
52-68%	
69-85%	
86-99%	
On/100%	
Unaffected	
(lights are not affected by scene button or master raise/lower)	

Legend: LED lit





Setting Limits



Note: Entering Limit Setup mode may cause window treatments to move approximately 8 inches up or down. Be sure that each window treatment is positioned so that the fabric can safely move 8 inches up or down before entering Limit Setup mode.

- 1.On any shade column, press and hold simultaneously the top and raise buttons. The LEDs next to the top and bottom buttons will cycle.
  - Note: At any time while in Limit Setup mode. vou can move all window treatments together to their current open limit by doubletapping the top button, or to their current close limit by double-tapping the bottom button.

Note: Once EDUs (electronic drive units of the window treatment) have been assigned to shade columns, limits can be set for an EDU only using the shade column it is assigned to, and a shade column can set limits only for those EDUs assigned to it.

2.Select the EDU you want to to adjust using the top button on the shade column. Each time you press and release the top button, a different EDU that is assigned to that shade column will open and close in an 8-inch range to indicate it is selected. Press the top button until the EDU for the window treatment 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 window treatment is allowed to open) using the raise and lower buttons.

- 4. Press and hold the top button on the shade column 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 window treatment is allowed to close) using the raise and lower buttons.
- 6. Press and hold the bottom button on the shade column 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 window treatment assigned to the shade column.
- 8. Press and hold simultaneously the top and raise buttons on the shade column to exit Limit Setup mode.

## 

#### Assigning EDUs to Shade Columns



Note: Entering Assignment mode will cause the window treatments to move between their open and close limits. Be sure that the open and close limits have been set correctly.



- 1. Press and hold simultaneously the top and bottom buttons on the shade column for 5 seconds to enter programming mode. The LEDs next to the buttons will flash once per second. EDUs (electronic drive units of the window treatments) assigned to that shade column will move to their close limit, and EDUs not assigned to that shade column will move to their open limit.
- 2. To assign an EDU to the shade column that is program mode, use one of the following methods:
- Press and release the top button on the shade column that is in program mode. Each time you press and release the top button, a different EDU that is assigned to that shade column will open and close in an 8-inch range. Press the top button until the EDU you wish to assign to the shade column moves. (You can also use the bottom button, which moves through the EDUs in the opposite order.)

- Or, press and release any button on an EDU to toggle between unassignment and assignment for that EDU's window treatment to the shade column.

Assign or unassign the currently selected EDU to the shade column using the raise and lower buttons.



The lower button assigns the selected EDU.

The raise button unassigns the selected EDU.

- 3. Check window treatment assignments: EDUs for window treatments assigned to the shade column will be at their close limit, and EDUs for window treatments not assigned to the shade column will be at their open limit.
- 4. Press and hold simultaneously the top and bottom buttons on the shade column for 5 seconds to exit Assignment mode. The LEDs next to the buttons will stop flashing, and the EDUs assigned to the shade column will return to their levels before entering Assignment mode.

**Note:** Once you have assigned window treatments to a shade column, you will notice the following additional functionality:

- When some or all EDUs assigned to a shade column are moving, press and release the top, middle, or bottom button to immediately stop all assigned EDUs.
- The position that each EDU moves to when the middle button is pressed is now reprogrammable. See Preset Adjustment on page 21.
- No matter how or from where their movement is commanded, whenever all the assigned EDUs come to a stop and match their programmed positions for one of the buttons in the shade column, the LED next to that button will automatically light up.



#### Preset Adjustment: Simple Method

- Use the raise and lower buttons on the shade column to set all EDUs (electronic drive units of the window treatments) to the desired preset levels.



 Press and hold the middle button on the shade column 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 column, those presets are accessible for an EDU only using the shade column it is assigned to, and a shade column 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 window treatments assigned to the shade column set at different positions in the preset. If, however, you wish all the window treatments 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 window treatments to move between their open and close limits. Be sure that the open and close limits have been set correctly.



 On the shade column 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 window treatments will move to their closed limits, and EDUs for unassigned window treatments will move to their open limits.

2. Press and release the middle button on that shade column. The adjacent LED will blink rapidly. EDUs for assigned window treatments will automatically move to their current preset settings.



 Use the raise and lower buttons to move all EDUs for assigned window treatments 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 column. Each time you press and release the top button, a different EDU that is assigned to that shade column will open and close in an 8-inch range. Press repeatedly until the EDU for the window treatment 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 column for 5 seconds. The preset will be saved.
- 6. Press and hold simultaneously the top and bottom buttons on the shade column for 5 seconds to exit to normal mode. The LEDs next to the buttons will stop flashing.



## Remotely Restore EDUs to Factory Defaults

А

1: A

Label shade grp 1

Warning! Restoring an EDU (electronic drive unit for a window treatment) to its factory defaults will erase any previous programming or assignments you have made for that EDU.

Saved



Note: Entering this mode may cause window treatments to move approximately 8 inches up or down. Be sure that each window treatment is positioned so that the fabric can safely move 8 inches up or down before entering this mode.

	1
· +	7
•	
•	
	2

- . On any shade column, press and hold simultaneously the top and lower buttons. The LED next to the top button will flash.
- Press and hold the top button for 5 seconds. All shade column LEDs will blink rapidly.
- 3. Select the EDU you want to restore to factory defaults using the top button on the shade column. Each time you press and release the top button, a different EDU in your system will open and close in an 8-inch range to indicate it is selected. Press the top button until the

EDU for the window treatment you wish to restore to factory defaults moves. (You can also use the bottom button, which moves through the assigned EDUs in the opposite order.)

4. Press and hold simultaneously the raise



and lower buttons for 5 seconds to restore the moving shade to factory defaults.

- 5. Repeat steps 3 and 4 to restore factory defaults to any other window treatments.
- 6. Press and hold simultaneously the top and lower buttons on the shade column to exit this mode.

#### Set Time and Date







#### Set Location





#### Set Daylight Saving Time



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

#### Add an Event





#### Delete an Event





#### 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).

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#### Set 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 "Holiday" and press the OK button to accept.
- Use the master buttons to select "Set holiday" and press the OK button to accept.
- 5. Use the master buttons to set the month of the holiday and press the OK button to accept. Repeat for the date.
- 6. The info screen will display a confirmation screen that your holiday has been set.
- 7. Exit programming mode (see page 12).



#### Delete a Holiday Holiday 1. Enter programming mode (see page 12), select "Timeclock," select "Holiday," and select "Delete holiday". Set holiday Delete holiday 2. Use the master buttons to select the holiday you wish to delete and press the OK button to accept. 3. The info screen will display a Feb 14 confirmation screen that your event has Delete? been deleted. 4. Exit programming mode (see page 12). Deleted

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## Set Save Mode





## Save Modes

Save always (default mode)	Quick scene programming mode; automatically save changes made to to lighting levels or fade time
	(master raise/lower changes are temporary)
Save by OK	Zone adjustments are temporary unless the OK button precedes them
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)
	Master raise/lower buttons, wallstations, and IR receiver are still enabled for adjustment of light level,
	but these changes are not saved
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.



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## Set Up Occupant Sensor



- 6. Press OK to accept your choice. The info screen will display a confirmation screen that your occupant sensor settings have been saved.
- 7. 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.



Pull down to remove bottom faceplate



## Troubleshooting

Symptom	Possible Causes	Remedy	
Unit does not control loads Unit does not turn lights on LEDs on front of unit are not ON MCB/breaker is tripping	Breaker/MCB is off Long fade time Low zone settings Miswire System short circuit System overload	Switch breaker/MCB on Set fade time to 0 seconds Reprogram scenes to a higher intensity Check wiring Find and correct shorts Make sure unit is not overloaded (2000 W max)	
Unit does not control load ZONE control does not work	Miswire Disconnected wire Burned-out lamps	Check wiring Connect zone wires to loads Replace bad lamps	
1 or more zones are "full on" when any scene is on and zone intensity is not adjustable	Miswire Shorted triac	Make sure loads are connected to the right zones Replace control unit	
A Zone control affects more than one zone	Miswire	Check for shorts between zone outputs	
Keypad buttons are not working Keypad LEDs are not tracking	Miswire or loose connection on low- voltage link Wallstation programming is incorrect	Tighten loose connections at PELV terminals on all units and other devices in the system Check the keypad function and programming on the units	
Faceplate is warm	Normal operation	Solid-state controls dissipate about 2% of the connected load as heat.	



## Troubleshooting (continued)

Symptom	Possible Causes	Remedy
Unit does not allow scene change or zone adjustments	Unit in wrong save mode Keypad in system has locked the unit	Change to correct save mode Check programming and state of keypads
Screen is off	Normal operation	Screen turns off after 20 seconds
Occupant sensor input does not work	Miswire Incorrect programming Input closure/opening is not occurring Timeout on occupant sensor is set too long	Check wiring on contact closure input Re-program the occupied and unoccupied states of the input Check that the input device is opening and closing properly Set the occupant sensor timeout to a shorter time
Timeclock events do not occur Sunrise or sunset events do not occur at the correct time	Timeclock is disabled Time is not set correctly Date is not set correctly Location is not set correctly Holiday schedule is in effect	Enable the timeclock Set the time Set the date Set the latitude and longitude correctly Remove the holiday schedule from your programming



## Troubleshooting (continued) - Window Treatment Functions

Symptom	Possible Causes	Remedy
EDU (electronic drive unit of the window treatment) will not move	EDU is not powered Window treatment fabric is caught on something EDU is not assigned to a keypad	Check EDU power Check and unbind window treatment fabric Assign the EDU to a keypad
EDU (electronic drive unit of the window treatment) does not fully open or fully close	Presets have been set incorrectly Limits have been set incorrectly Window treatment fabric is caught on something	Try using raise/lower buttons on keypad Set limits correctly Check and unbind window treatment fabric
Window treatment moves in the opposite direction when raise/lower buttons are pushed	Open and close limits have been reversed	Set limits correctly
Keypad LEDs are off and keypad will not control any window treatment	No power is going to keypad	Check and wire power to keypad
Keypad LEDs are on but keypad will not control any window treatment	All presets are set to the same height Communications link is not wired to the EDU EDU has been unassigned from keypad	Try using raise/lower buttons on keypad Check and wire the EDU link Reassign the EDU to the keypad
Keypad does not operate all the window treatments it is assigned to	EDU has been unassigned from keypad All presets are set to the same height EDU is not wired correctly Keypad is not wired correctly	Reassign the EDU to the keypad Try using raise/lower buttons on keypad Check and rewire EDU Check and rewire keypad
Window treatments in a room move on their own	EDUs are assigned to a keypad in another room	Reassign the EDU to the correct keypad



## **Menu Options**

Timeclock Zone setup Load type View events See page 26 See page 8 Add events High end Copy all timeclock events from one day See page 9 to another Low end Copy schedule See page 9 Copy all timeclock events from one day Min level to another See page 9 Delete events Label See page 14 See page 26 Delete schedule Shade labels Delete all timeclock events from a See page 22 specified dav IR Holiday Enabled See page 27 Enable control of the GRAFIK Eye by IR (remote control palm pilot, wired IR device, Time & date etc.) See page 23 Disabled Location Disable control of the GRAFIK Eye by IR (remote control palm pilot, wired IR device, See page 24 etc.) Set DST Backlight See page 24 Enable/Disable Off Turn off the green backlights on the scene and shade buttons Enable or disable timeclock events On Scene setup Turn on the green backlights on the scene and shade buttons Levels **Diagnostics** See page 16 Diagnostics are for advanced use only. For help, contact Lutron Technical Labels Support. See page 17 Device serial Save mode Displays the serial number of the GRAFIK Eye See page 28 Link details Occ sensor Displays diagnostic information for all devices wired on the link See page 29 Code rev Displays the software versions of the different components within the GRAFIK Eye USB status Displays diagnostic information for the GRAFIK Eye's USB Reset USB Resets the USB module on the GRAFIK Eye (used if it is having trouble communicating)

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## 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.
- 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.
- Equipment and parts external to the unit, including those sold or supplied by Lutron (which may be covered by a separate warranty).
- The cost of repairing or replacing other property that is damaged when the unit does not work properly, even if the damage was caused by the unit.

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

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#### 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.

These products may be covered under one or more of the following U.S. patents: 4,797,599; 4,893,062; 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.

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## **LUTRON**®

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