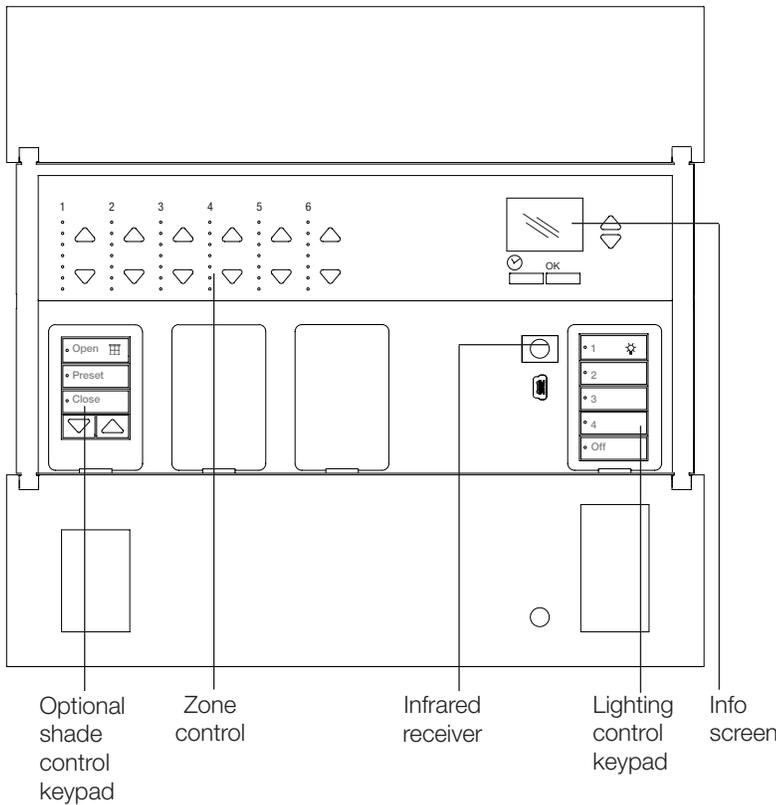
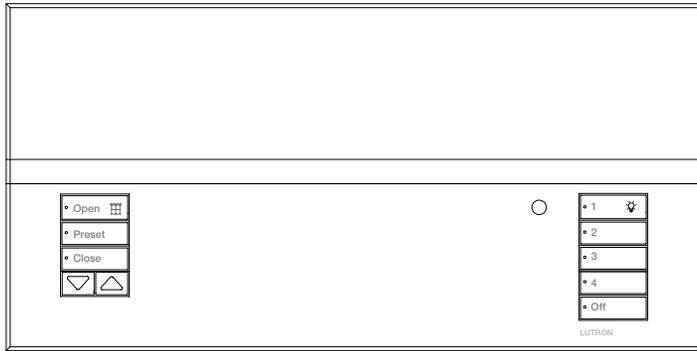


GRAFIK Eye® QS Control Unit



Description

- Provides pushbutton recall of four preset lighting scenes, plus Off.
- Offers optional integrated shade control buttons, which can be added to the unit after installation.
- Includes master override buttons to temporarily raise and lower all lights.
- Allows setup of lighting scenes and shade presets using buttons on the control unit.
- Controls many light source types directly and others using power interfaces.
- Provides individual control of light sources.
- Includes built-in infrared receiver.
- Includes external IR connection.
- Includes built-in astronomic timeclock.
- Provides info screen for zone light level percentage, energy savings, zone labeling, accessing additional scenes, programming, and timeclock scheduling.
- Info screen is language-selectable.
- Provides lockout options to prevent accidental changes.
- Includes one occupant sensor input and 24 V_{AC} power for occupant sensors or other building management systems.
- Includes communication link for seamless integration of lights, motorized window treatments, and control stations.
- Backlit buttons with optional engraving make unit easy to find and to operate.
- Available in a variety of colors and finishes to match any decor.
- Compatible with all Lutron QS system components.

Note: General Engraving (-EGN) shown.

<p>Job Name:</p>	<p>Model Numbers:</p>
<p>Job Number:</p>	

Specifications

Input Power

- 120 V \sim 50/60 Hz.
- Lightning strike protection meets ANSI/IEEE standard 62.41-1980. Can withstand voltage surges of up to 6000 V \sim and current surges of up to 3000 A.

Lighting Sources/Load Types

Controls the following lighting sources with a smooth, continuous square law dimming curve or on a full conduction non-dim basis:

- Incandescent.
- Magnetic low-voltage transformer.
- Lutron Tu-Wire[®] electronic fluorescent dimming ballast.
- Neon and cold cathode.
- Non-dim.

Controls the following lighting sources with a smooth, continuous square law dimming curve through separate power interfaces:

- Electronic low-voltage transformer.
- Lutron Hi-Lume[®] and Eco-10™ electronic fluorescent dimming ballast.

Key Design Features

- Meets IEC 801-2. Tested to withstand 15 kV electrostatic discharge without damage or memory loss.
- Compensates in real time for incoming line voltage variations (no visible flicker with +/-2% change in RMS voltage per cycle, and +/-2% Hz change in frequency per second).
- 10-year power failure memory automatically restores lighting to the scene selected prior to power interruption, and stores timeclock and scene programming.
- Faceplate is hinged top and bottom and stays open at 180° for ease of access.

Environment

- 32-104 °F (0-40 °C).
- Relative humidity less than 90% non-condensing.

Standards

- UL listed.
- CSA.
- NOM.

Scene and Shade Buttons

- Large, rounded buttons are easy to use.
- Backlit buttons with optional engraving make it easy to find and to operate the control unit in low light conditions.
- Optional button engraving is angled up to the eye for easy reading.
- Predefined label stickers are included for field labeling.

Preset Light and Shade Control

- 4 preset lighting scenes, plus Off, are accessible from the front of the control unit.
- 12 additional scenes are stored in the control unit. These are accessible via the info screen or via other control stations.
- Light levels fade smoothly between scenes. Fade time can be set differently for each scene: 0 to 59 seconds, or 1 to 60 minutes. Fade time from Off is capped at 5 seconds.
- Open, preset, and close shade buttons. Raise and lower is also available for each shade column. Each shade column can be programmed to operate one shade or multiple shades (a group of shades).

Zone Control

- Each zone has a dedicated raise and lower button to adjust the zone.
- Each zone has a dedicated 7 LED bar graph for level status. Light % and energy saved % is displayed on the info screen.
- All zone information has blue backlit LEDs. Backlight is programmable to Off.
- 4 preset scenes can be programmed as zone toggles. Zones to toggle are fully programmable to integral and external zones.

Info Screen

- Screen is viewable from all angles.
- Programmable zone labels.
- Programmable scene labels.
- Status of real-time zone percentage and energy savings.
- Programmable timeclock schedules.

Job Name:	Model Numbers:
Job Number:	

Specifications

Astronomic Timeclock

- Integral to all units.
- 7 daily schedules available.
- Holiday schedules are programmable by date up to one year in advance.
- 25 events per day available.
- Astronomic times are programmable by integral city database or by entering latitude and longitude. Times automatically adjust throughout the year based on location.
- Automatically adjusts for Daylight Saving Time, adjusted for the new 2007 dates.
- California Energy Commission, complies with Title 24.

System Communications and Capacities

- Low-voltage type PELV (Class 2: USA) wiring connects control units, wallstations, motorized shades, and control interfaces.
- A QS system can have up to 100 devices and 100 zones (see table at right).

Infrared

- Infrared receiver allows infrared transmitters to select 8 scenes, raise/lower lighting zones, or raise/lower shades.
- Transmitter buttons imitate buttons on faceplate.
- 50 ft. (15 m) line of sight range.
- Terminal block infrared input for direct contact with external IR connection.
- IR can be disabled via programming.

Accessory Controls

- *SeeTouch* QS controls can be added to the control link.
- Each *GRAFIK Eye* QS can power up to 3 *SeeTouch* QS controls.
- Works with Lutron GRX-IT and GRX-8IT infrared remote controllers.

Occupant Sensor Connection

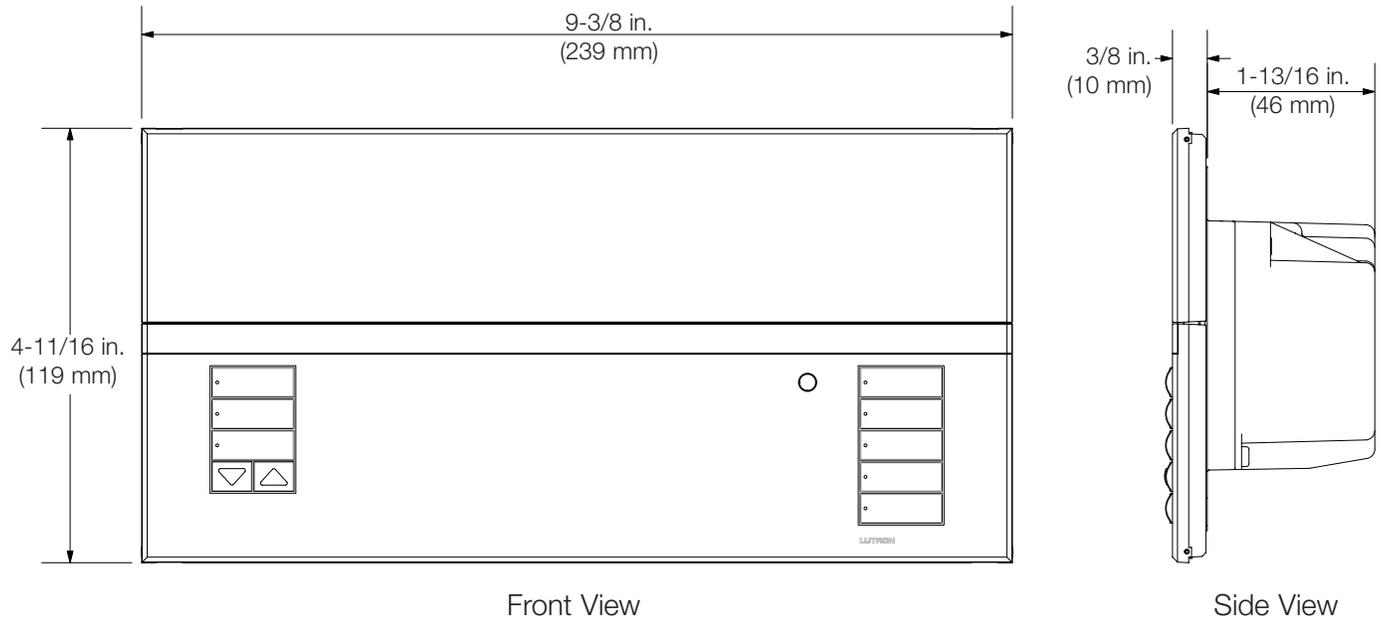
- Control unit supplies power for and receives a control signal back from one occupant sensor.
- One contact closure input can be programmed to select a scene on the contact closing, opening, or both. No power pack required.
- Power Supply Output (Terminal B):
 - 24 V_{DC}, 50 mA maximum.
 - An auxiliary power supply must be used if the device requires more than 50 mA.
- Occupant Sensor Signal Input (Terminal A):
 - The occupant sensor must provide a dry contact closure or solid-state output.
- Control unit is miswire-protected up to 36 V_{AC}.

System Limits

	QS Device	Zone Count	Device Count
	3-zone QS	3	1
	4-zone QS	4	1
	6-zone QS	6	1
	<i>seeTouch</i> QS	0	1
	<i>Sivoia</i> QS	1	1

Job Name:	Model Numbers:
Job Number:	

Mechanical Dimensions



Fits into a 4-gang U.S. backbox, 3.5 in. (89 mm) deep; Lutron P/N 241-400

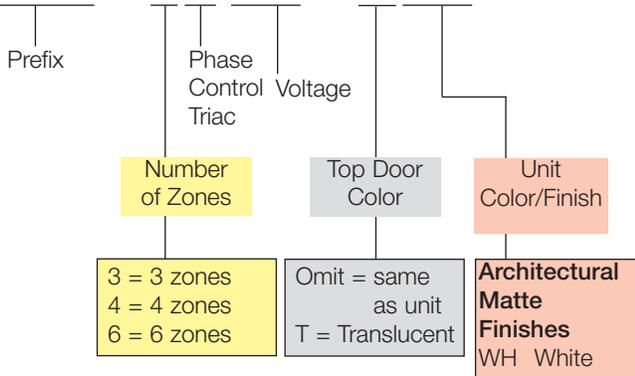
Job Name:	Model Numbers:
Job Number:	

Standard *GRAFIK Eye QS* Model Numbers

See following pages for Custom Options and Model Numbers

See Standard Color Combinations page for faceplate, stripe, and button colors

- QSG - 3P120 - WH
- QSG - 3P120 - TWH
- QSG - 4P120 - WH
- QSG - 4P120 - TWH
- QSG - 6P120 - WH
- QSG - 6P120 - TWH



Mechanical Dimensions

Fits into a 4-gang U.S. backbox, 3.5 in. (89 mm) deep; Lutron P/N 241-400

Capacities

Zones	Unit Capacity (watts)	Zone Capacity (watts)	Unit Dissipation (BTUs/hour)
3	2000	800	61.5
4	2000	800	61.5
6	2000	800	61.5

Job Name:	Model Numbers:
Job Number:	

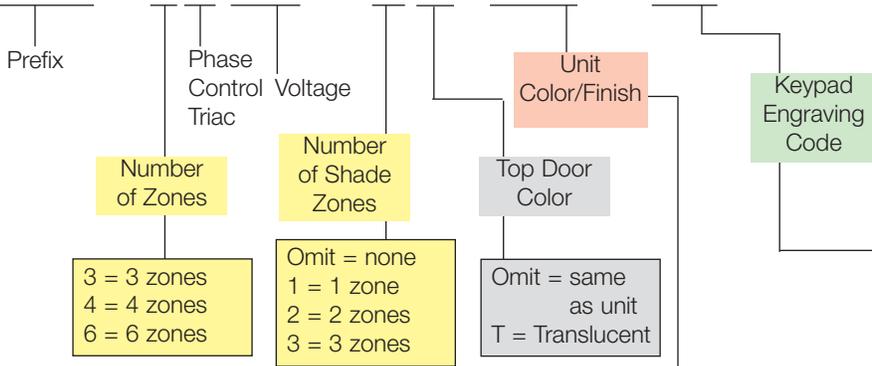
Custom GRAFIK Eye QS Model Numbers

See previous page for Standard Model Numbers

See following page for Custom Options and Model Numbers

See Standard Color Combinations page for faceplate, stripe, and button colors

QSG - P120 -



Custom Colors/Finishes	
Architectural Matte Finishes	
Standard (ship in 48 hours)	
White	WH
Ivory	IV
Beige	BE
Gray	GR
Brown	BR
Black	BL
Almond	AL
Light Almond	LA
Architectural Metal Finishes	
Bright Brass	BB
Bright Chrome	BC
Bright Nickel	BN
Satin Brass	SB
Satin Chrome	SC
Satin Nickel	SN
Antique Brass	QB
Antique Bronze	QZ
Anodized Aluminum Finishes	
Clear	CLA
Black	BLA
Brass	BRA

Keypad Engraving Codes
Omit = Unengraved
EGN = General Engraving
NST = Non-Standard Text Engraving
Please visit the <i>GRAFIK Eye QS</i> website at www.lutron.com/grafikyeqs for custom engraving forms

Mechanical Dimensions

Fits into a U.S. 3.5 in. (89 mm) deep 4-gang backbox

Capacities

See previous page

Job Name:	Model Numbers:
Job Number:	

GRAFIK Eye QS Custom Options and Model Numbers

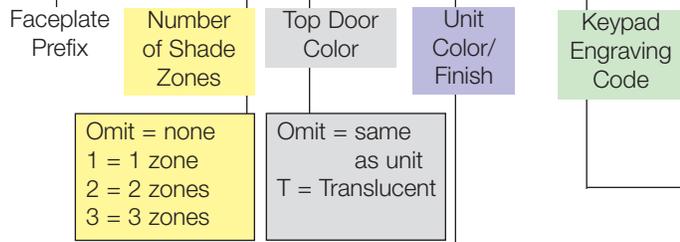
See previous pages for Standard and Custom Model Numbers

See Standard Color Combinations page for faceplate, stripe, and button colors

Faceplate Kit

(includes coordinating stripe and buttons)

QSGF - 3 T WH -



Omit = none
 1 = 1 zone
 2 = 2 zones
 3 = 3 zones

Omit = same as unit
 T = Translucent

Stripe Kit

QSGS - WH



Stripe Custom Color/Finish Codes
 Same as Faceplate colors at left

Faceplate Custom Color/Finish Codes

Architectural Matte Finishes		Anodized Aluminum Finishes	
Standard		Clear	CLA
(ship in 48 hours)		Black	BLA
White	WH	Brass	BRA
Ivory	IV		
Beige	BE	Satin Color Matte Finishes	
Gray	GR	Snow	SW
Brown	BR	Biscuit	BI
Black	BL	Eggshell	ES
Almond	AL	Taupe	TP
Light Almond	LA	Midnight	MN
		Limestone	LS
		Stone	ST
		Desert Stone	DS
Architectural Metal Finishes		Terracotta	TC
Bright Brass	BB	Hot	HT
Bright Chrome	BC	Goldstone	GS
Bright Nickel	BN	Palladium	PD
Satin Brass	SB	Plum	PL
Satin Chrome	SC	Turquoise	TQ
Satin Nickel	SN	Bluestone	BG
Antique Brass	QB	Sea Glass	SG
Antique Bronze	QZ	Greenbrier	GB
		Sienna	SI
		Merlot	MR
		Mocha Stone	MS

Keypad Engraving Codes

Omit = Unengraved
 EGN = General Engraving
 NST = Non-Standard Text Engraving
 Please visit the *GRAFIK Eye QS* website at www.lutron.com/grafikyeqs for custom engraving forms

Job Name:	Model Numbers:
Job Number:	

GRAFIK Eye QS Custom Options and Model Numbers

See previous pages for Standard and Other Custom Model Numbers

See Standard Color Combinations page for faceplate, stripe, and button colors

Button Kit

QSGB - 5B - WH -

Custom Button
Kit Prefix

Button
Configuration

Button
Color/
Finish

Keypad
Engraving
Code

3BRL = 3-button with
raise/lower
(shade keypad)
5B = 5-button
(lighting keypad)

Button Kit Custom Color/Finish Codes

Architectural Matte Finishes

White	WH
Ivory	IV
Beige	BE
Gray	GR
Brown	BR
Black	BL
Almond	AL
Light Almond	LA

Satin Color Matte Finishes

Snow	SW
Biscuit	BI
Eggshell	ES
Taupe	TP

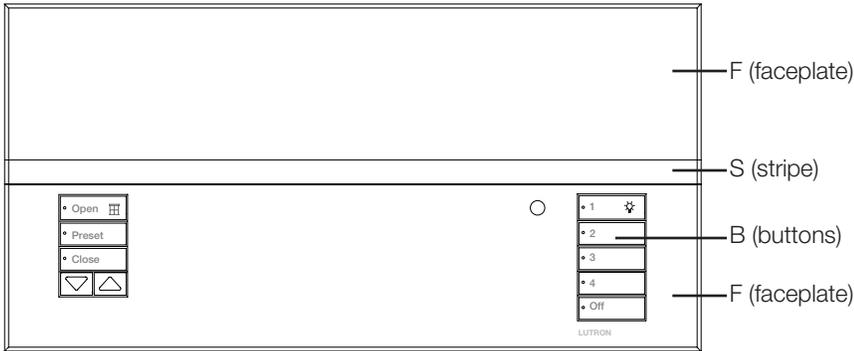
Keypad Engraving Codes

Omit = Unengraved
 EGN = General Engraving
 NST = Non-Standard Text Engraving
 Please visit the *GRAFIK Eye QS* website at
www.lutron.com/grafikeyeqs for custom
 engraving forms

Job Name:	Model Numbers:
Job Number:	

GRAFIK Eye QS Standard Color Combinations

See previous pages for Standard and Custom Model Numbers



Faceplate is comprised of a top and bottom. The bottom will always be the color indicated under "faceplate." The top may be the same color or translucent. Use the chart for faceplates that have the same color top and bottom. If a translucent lid is chosen, the stripe will automatically be the same color as the bottom lid.

Example:

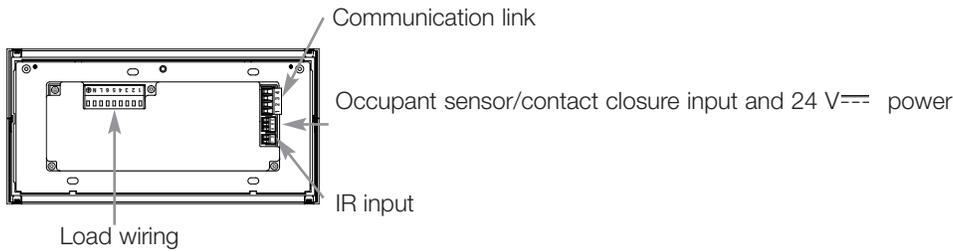
If you order QSG-4P120-1WH, your GRAFIK Eye QS with 4 lighting zones and 1 shade zone will come with a white faceplate (both top and bottom), gray stripe, and white buttons.

Suffix	Faceplate (F)	Stripe (S)	Button (B)	Suffix	Faceplate (F)	Stripe (S)	Button (B)
Architectural Matte				Satin Matte			
WH	White	Gray	White	MN	Midnight	Gray	Black
IV	Ivory	Beige	Ivory	TP	Taupe	Gray	Taupe
BE	Beige	Ivory	Beige	SW	Snow	Gray	Snow
GR	Gray	Black	Gray	ES	Eggshell	Beige	Eggshell
BR	Brown	Black	Brown	BI	Biscuit	Eggshell	Biscuit
BL	Black	Gray	Black	LS	Limestone	Gray	Gray
AL	Almond	Light Almond	Almond	ST	Stone	Gray	Gray
LA	Light Almond	Almond	Light Almond	DS	Desert Stone	Taupe	Taupe
Architectural Metal				TC	Terracotta	Taupe	Taupe
BB	Bright Brass	Black	Black	BG	Bluestone	Gray	Gray
BC	Bright Chrome	Black	Black	HT	Hot	Taupe	Taupe
BN	Bright Nickel	Black	Black	MR	Merlot	Taupe	Taupe
SB	Satin Brass	Black	Black	SI	Sienna	Brown	Brown
SC	Satin Chrome	Black	Black	GB	Greenbrier	Gray	Gray
SN	Satin Nickel	Black	Black	SG	Sea Glass	Gray	Gray
QB	Antique Brass	Black	Black	MS	Mocha Stone	Taupe	Taupe
QZ	Antique Bronze	Black	Black	GS	Goldstone	Ivory	Ivory
Anodized				PD	Palladium	Gray	Gray
CLA	Clear	Black	Black	PL	Plum	Taupe	Taupe
BLA	Black	Black	Black	TQ	Turquoise	Gray	Gray
BRA	Brass	Black	Black				

Job Name:	Model Numbers:
Job Number:	

Wiring Diagrams

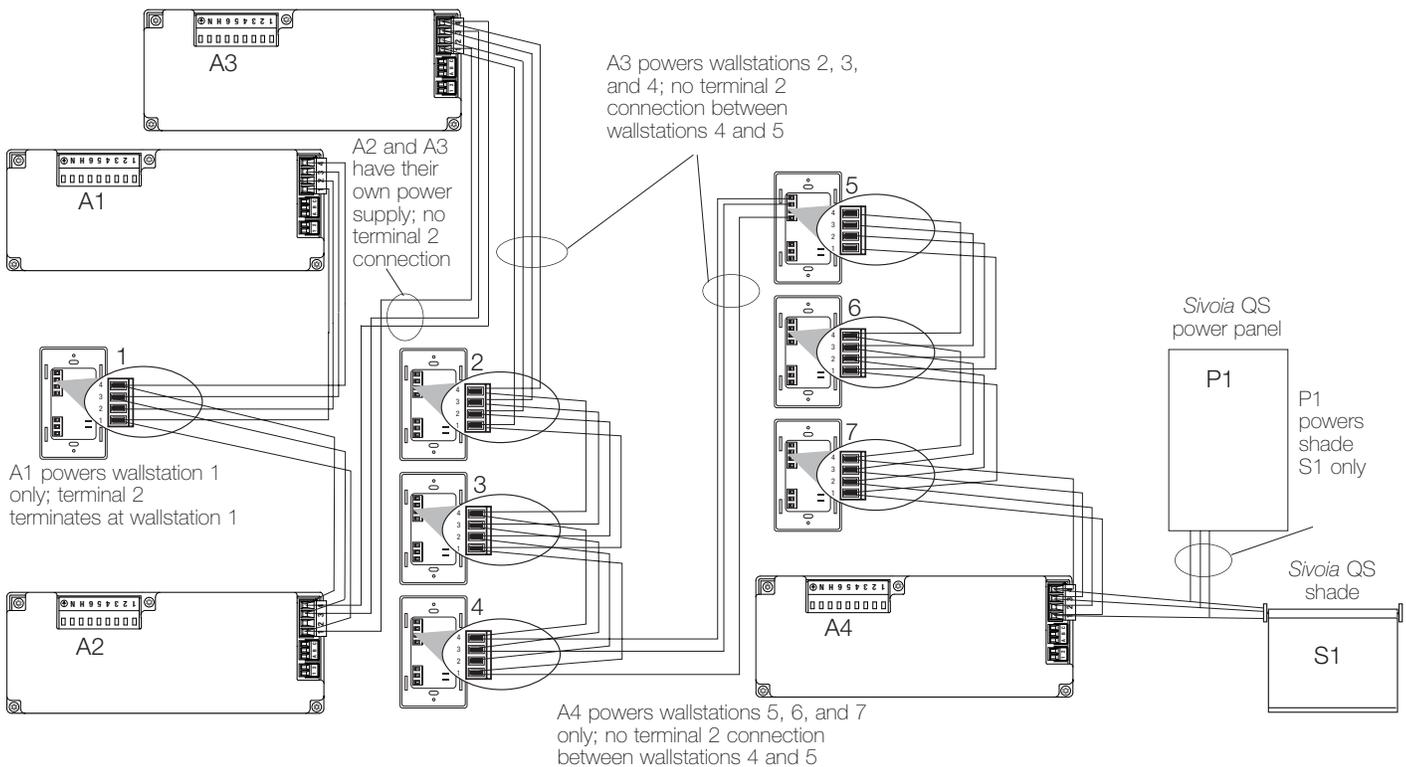
Terminations



PELV (Class 2: USA) QS System Low-Voltage Terminal Connections

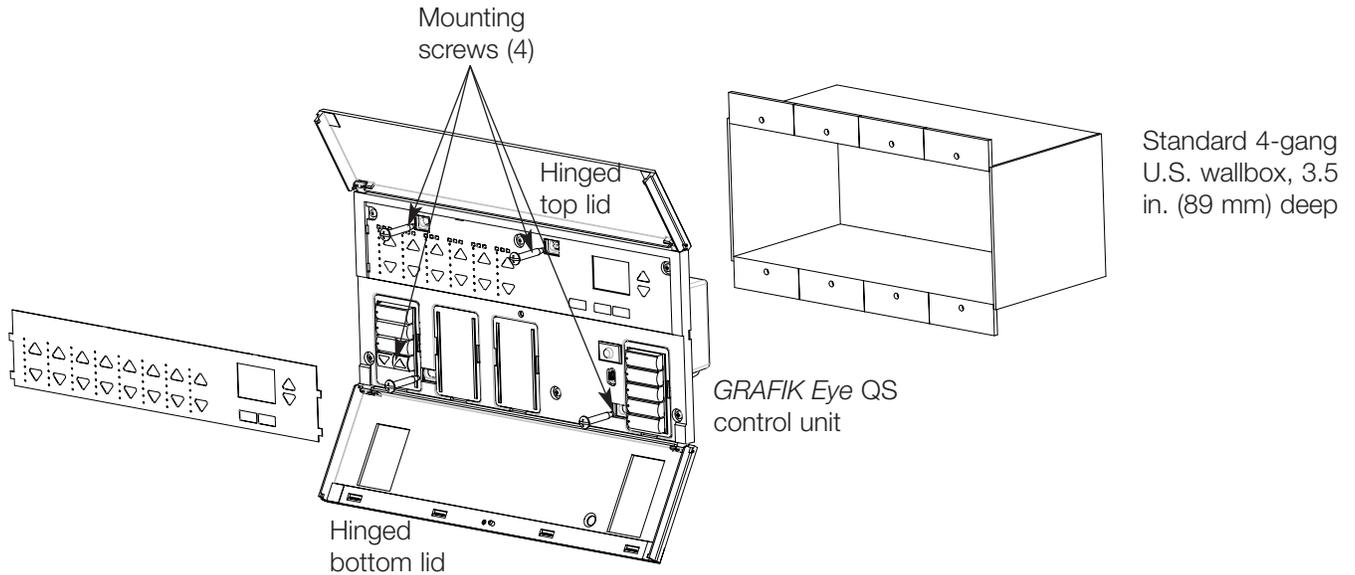
- Each PELV (Class 2: USA) terminal accepts up to two #18 AWG (1.0 mm²) wires.
- Connect the terminal 1, 3, and 4 connections to all control units, wallstations, and control interfaces.
- Each control unit has its own power supply. Terminate the terminal 2 connection (24 V power) so that each control unit supplies power to a maximum of three wallstations. Each wallstation should receive power from only one control unit.
- Total length of control link must not exceed 2,000 ft. (610 m).
- Do not allow PELV (Class 2: USA) wires to contact line/mains wires.

Control units shown in rear view

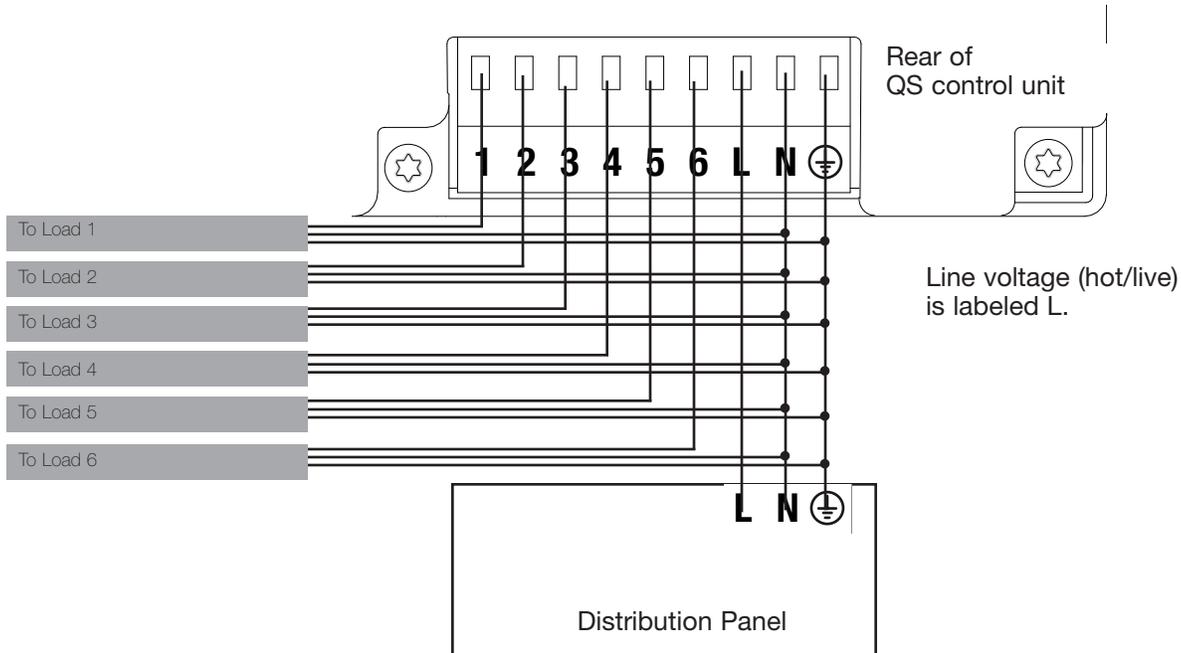


Job Name:	Model Numbers:
Job Number:	

Mounting



Line Voltage Wiring



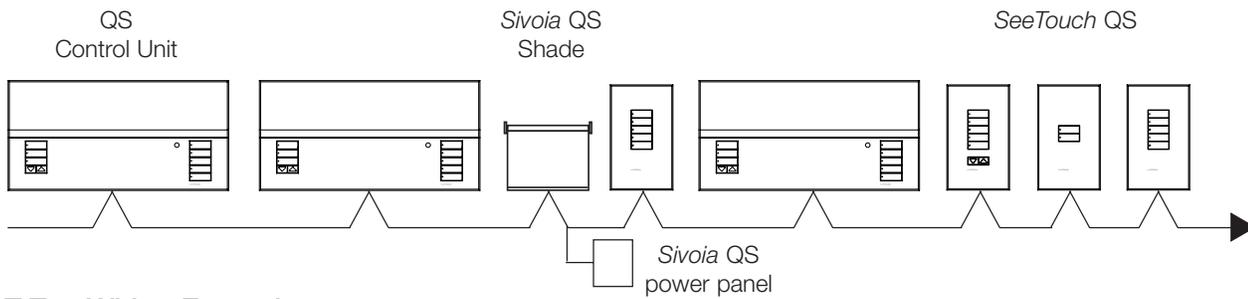
- Pull power wiring from distribution panel and to light fixtures.
- Each line voltage terminal can accept one #12 AWG (2.5 mm²) wire.
- Consult Lutron for non-dim relay wiring and/or load side emergency transfer wiring.

Job Name:	Model Numbers:
Job Number:	

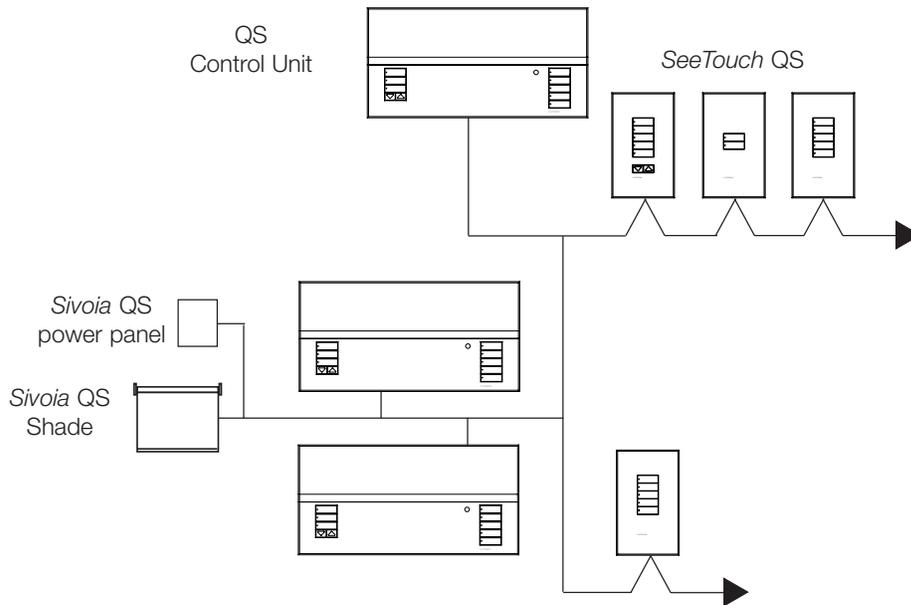
PELV (Class 2: USA) QS System Low-Voltage Wiring

- System communication uses low-voltage wiring.
- Wiring can be daisy-chained or T-tapped.
- Wiring must be run separately from line/mains voltage.
- PELV (Class 2: USA) wiring link requires:
 - Two #18 AWG (1.0 mm²) conductors for control power.
 - One twisted, shielded pair of #22 AWG (1.0 mm²) for data link.
 - Available from Lutron, P/N GRX-CBL-346S; check compatibility in your area.
- Total length of control link must not exceed 2,000 ft. (610 m).

Daisy-Chain Wiring Example



T-Tap Wiring Example



Job Name:	Model Numbers:
Job Number:	