

 **LUTRON**®





Lutron switching strategies for any application

- Turn lights on and off based on astronomical timeclock schedules
- Switch electric lighting based on the availability of natural light
- Automatically control room lighting based on occupancy
- Manually override automatic control to meet occupant's needs
- Integrate with Building Management Systems (BMS)
- Provide normal or emergency capability
- Meet or exceed demanding energy codes. Enhanced functions include after-hours mode with flash-warn and manual override

seeTouch™ 4-button wallstation
and Softswitch128™ panel

Lutron switching systems – designed and manufactured to provide exceptional value

Ease of use

Lutron switching panels are easy to program and operate. Wallstations are easily reprogrammed in the field.

Reliability

Lutron's patented Softswitch™ relay is rated to last a minimum of one million cycles for ultimate quality and durability, significantly reducing maintenance and service costs. See page 10 for more information on Lutron's patented Softswitch technology.

Lower installed cost

Low-voltage, daisy-chain wiring between panels and wallstations minimises home-run wiring. Additionally, all panels are preassembled and pretested for easy shipment and timely delivery. Ask about our Fastrack™ Programme.

Outstanding service

Lutron representatives and project management teams are available to help design and specify the right switching system for your project and to commission the installation.



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Switching system for stand-alone projects with up to 128 relays

Lutron's Softswitch128 switching system is ideal for the following switching applications:

- Office buildings/lobbies
- Tenant spaces
- Retail stores/supermarkets
- Car parks
- Schools
- Building exteriors/landscape



Mini Softswitch128 panel and FOMX 1-button wallstation

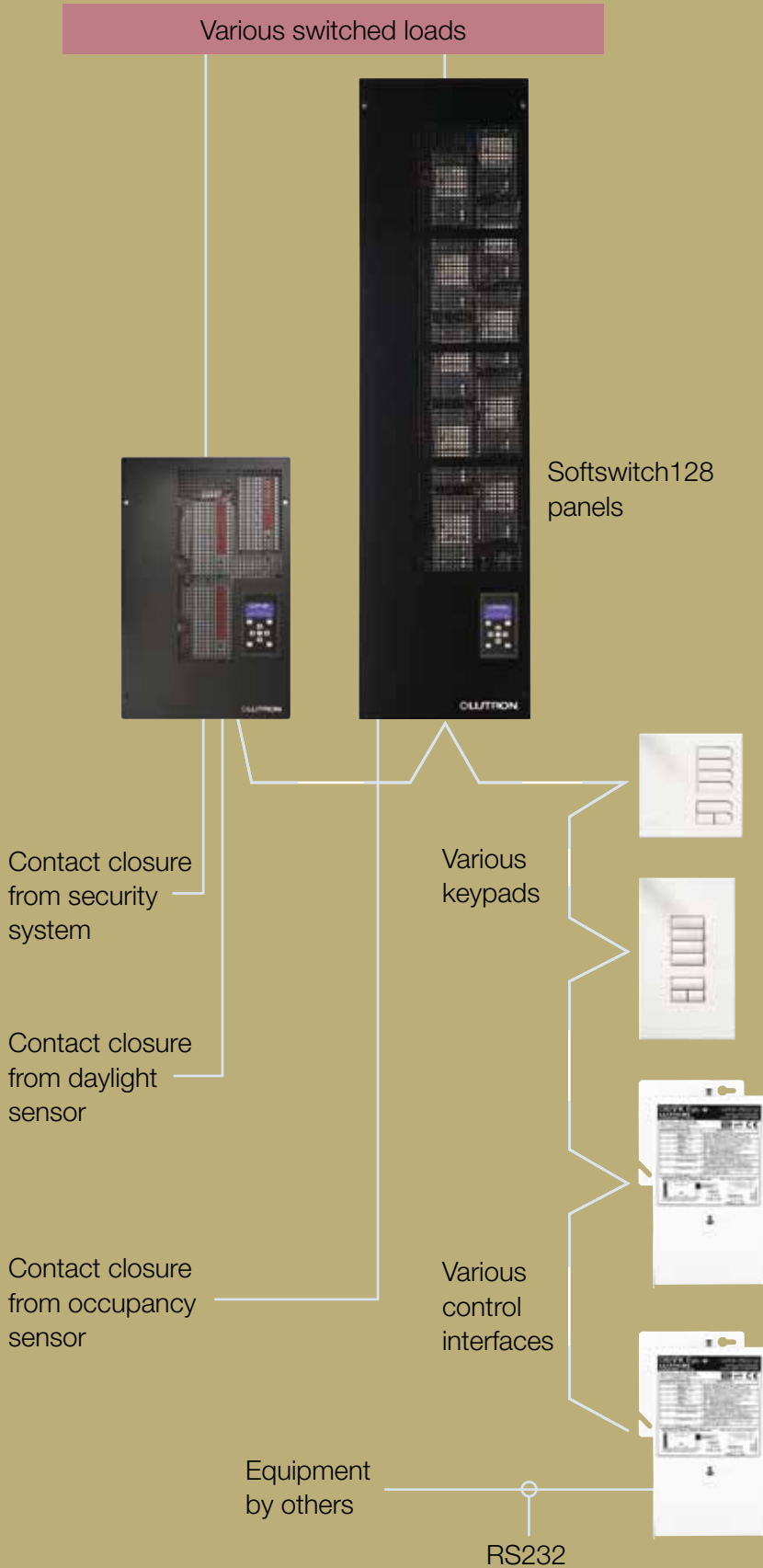
Typical System

- Softswitch128 switching panel with built-in LCD controller and easy-to-use built-in astronomical time clock
- Low-voltage wallstations programmed directly from in-panel LCD controller
- Contact closures integral to the Softswitch128 panel

Options

- Contact closure input/output devices to integrate with occupancy sensors, daylight sensors and motorised window treatments/projection screens
- RS232 interfaces for enhanced integration with other building systems

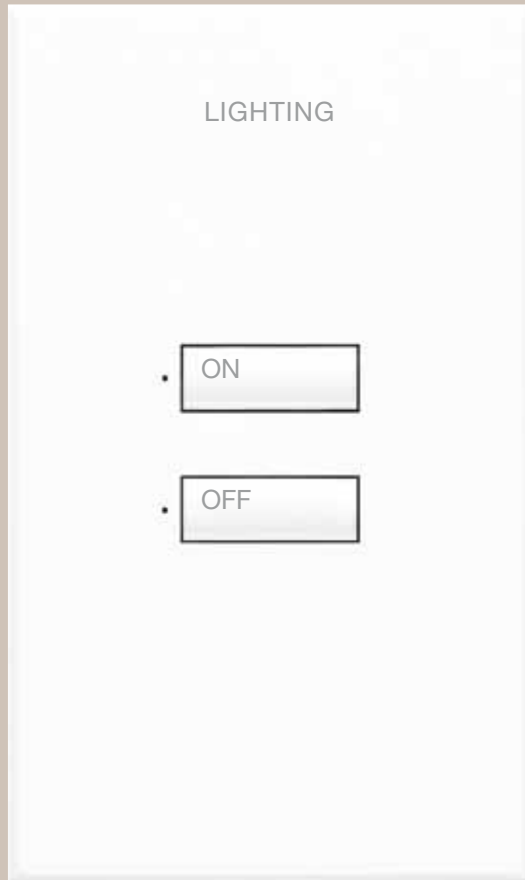
Softswitch128 switching system map



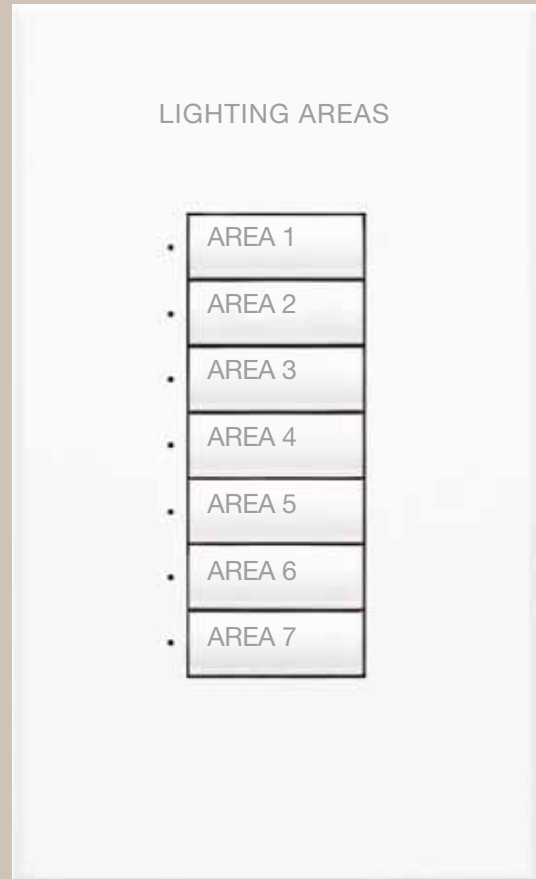
System Maximums

- 512 relays/zones (1 relay = 1 zone)
- 16 panels
- 32 wallstations and/or control interfaces
- 7 daily schedules and 40 additional holiday schedules
- 25 time clock events per schedule

seeTouch™ wallstations



seeTouch 2-button wallstation.
Shown actual size in white.
(Model SO-2BN-WH)

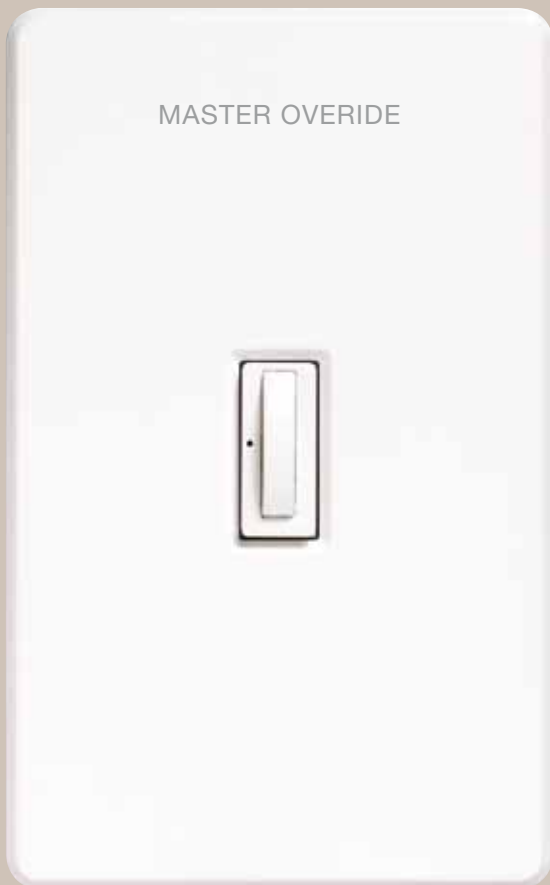


seeTouch 7-button wallstation.
Shown actual size in white.
(Model SO-7BN-WH)

seeTouch wallstations make it easy to turn lights on and off in one or more areas.

- Available with 1 button to 7 buttons
- Large, rounded buttons are easy to use
- Optional engraving is angled up to the eye for easy reading
- On-button engraving and backlit buttons for improved clarity of control functions in low-light conditions
- User-changeable button and faceplate assemblies make customisation easy
- Standard green LED status lights
- Available in 6 standard matt and 12 metal finishes
- Available in standard and custom engraving options

FOMX 1-button wallstation



Shown actual size in white with Fassada™ wallplate. (Model FOMX-1B-SL-WH)

FOMX 1-button wallstation offers classic styling and a cost-effective solution for switching projects.

- Toggle control of any group of relays in a switching system
- Classic styling fits behind any standard wallplate or Lutron's Fassada™ wallplate
- Available with or without green LED status light
- Available in white
- Available in custom engraving options

Keyswitch wallstation



Shown actual size in white. (Model NTOMX-KS-WH)

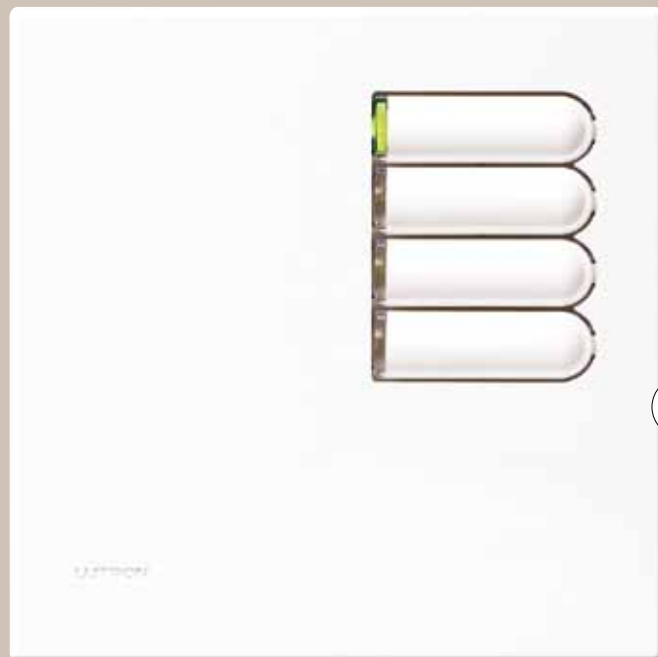
Keyswitch wallstation offers secure control of lighting.

- Turns clockwise and anti-clockwise for two programmable switch closures
- Available in 6 standard matt and 12 metal finishes
- Available in custom engraving options

European-style wallstations



European-style 2-button wallstation.
Shown actual size in white.
(Model EOMX-2B-WH)

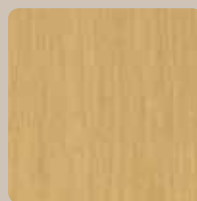


European-style 4-button wallstation.
Shown actual size in white.
(Model EOMX-4B-WH)

European-style wallstations allow simple switching control in one or more areas.

- Available with 2, 4 or 8 buttons
- Large, rounded buttons are easy to use
- Standard green LED status lights
- Buttons are rounded, allowing engraving to be displayed at an upward angle thus increasing readability
- On-button and wallplate engraving available
- Plastic faceplates available in black or white matt

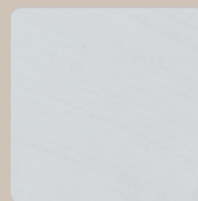
- Metal faceplates available in



Satin Brass SB



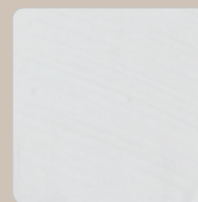
Bright Brass BB



Bright Chrome BC



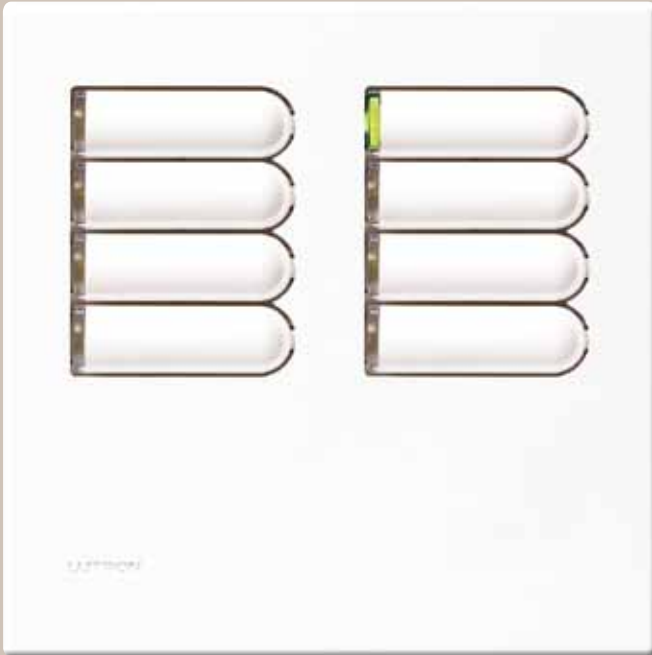
Satin Nickel SN



Bright Nickel BN



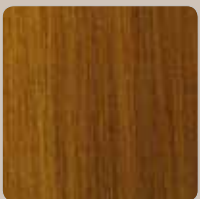
Gold Plated AU



European-style 8-button wallstation.
Shown actual size in white.
(Model EOMX-8B-WH)



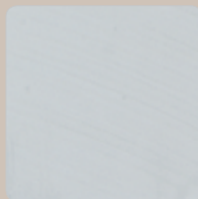
European-style keyswitch.
Shown actual size in white.
(Model EOMX-KS-WH)



Antique Brass QB



Antique Bronze QZ



Satin Chrome SC



Clear Anod.
Aluminium CLA



Black Anod.
Aluminium BLA



Brass Anod.
Aluminium BRA

European-style keyswitch offers secure control of lighting.

- Turns clockwise and anti-clockwise for two programmable switch closures
- Available in white and black matt and 12 metal finishes
- Available in custom engraving options



Patented Arcless Softswitch™ circuit

Arcing: the cause of relay failure

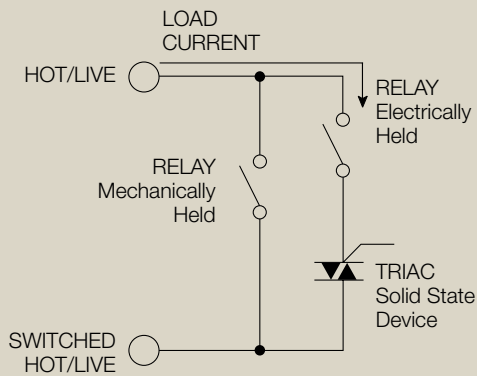
Each time a relay closes, the contacts “bounce” several times. Under load, the current flowing through the relay creates an arc. This arcing erodes the contacts leading to premature relay failure.

The Lutron solution

Lutron’s exclusive Softswitch circuitry opens and closes the relay contacts without arcing. Even when fully loaded, the arc elimination extends a relay’s average rated life to more than 1,000,000 on/off cycles.

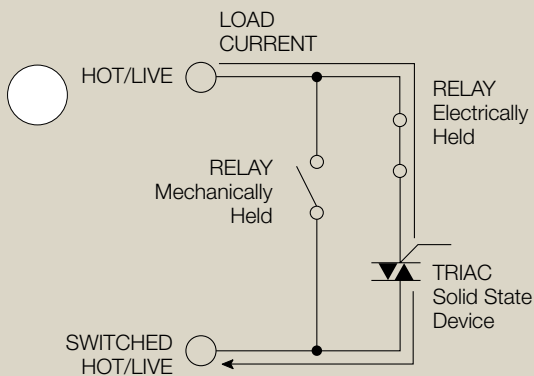
The diagram to the right shows the Softswitch turn-on sequence which guards against arcing. The reverse operation is used at turn-off.

The Lutron Softswitch technology is not a solid state switch. When off, the load is completely disconnected by a mechanical air gap. When on, the relays create a closed circuit without triac power loss.



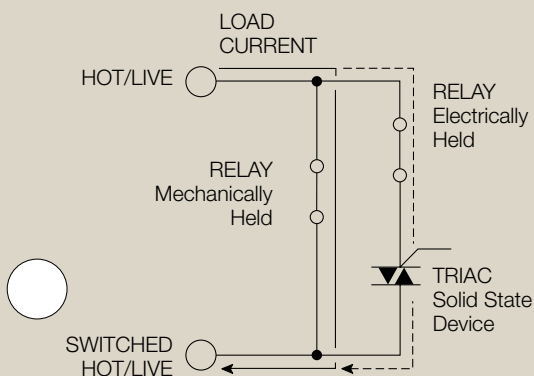
Air gap Off

Both relays are open providing a true air gap off, with no leakage current to the load.



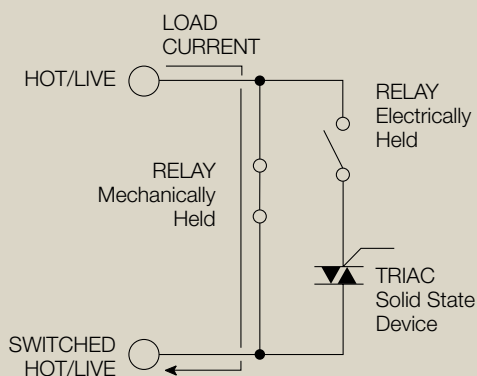
Lights Turning On

The series relay is closed first. While these contacts bounce, there is no arcing because the series triac blocks current flow. After the relay contacts stop bouncing, the triac turns on, providing power to the load.



Eliminate Triac Power Loss

While the load current flows through the triac, power loss is dissipated as heat. The parallel relay is closed to bypass the triac. As the parallel relay contacts bounce, the triac and series relay offer an alternative current path that prevents arcing.



Lights On - Full Conduction

After the parallel relays is fully closed, the series relay opens. Any dissipation loss in the triac is eliminated. Full conduction is delivered to the load and the relays have not been damaged in the transition.



Photograph by Timothy Hursley.
Interior architect: Lehman-Smith + McLeish, PLLC.
Lighting design: Fisher Marantz Stone.

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