

Installation Instructions

Please Read Before Installing

120 V~ 50/60 Hz



Dimmer and
Dimmer with Neutral

Switch

Load Specifications

Control	Load Type	Min. Load	Max. Load
SZ-6D ¹	Incandescent	50 W	600 W
	MLV ²	50 W/VA	450 W/ 600 VA
SZ-6ND ¹	Incandescent	10 W	600 W
	MLV ²	10 W/VA	450 W/ 600 VA
SZ-6ANS ³	Lighting	10 W/VA	6 A
	Motor	0.083 A	3 A

Notes

1 Dimmer Load Type: SZ-6D and SZ-6ND are designed for use with permanently installed incandescent, magnetic low-voltage (MLV), or tungsten halogen only. Do not install dimmers to control standard receptacles or motor-operated appliances.

2 Low-Voltage Applications: Use SZ-6D and SZ-6ND with magnetic (core and coil) low-voltage transformers only. Not for use with electronic (solid-state) low-voltage transformers.

Operation of a low-voltage circuit with lamps inoperative or removed may result in transformer overheating and premature failure. Lutron strongly recommends the following:

- Do not operate low-voltage circuits without operative lamps in place.
- Replace burned-out lamps as quickly as possible.
- Use transformers that incorporate thermal protection or fused transformer primary windings to prevent transformer failure due to overcurrent.

3 Switch Load Type: SZ-6ANS is designed for use with all permanently installed lighting loads and with motor loads up to 1/4 HP (5.8 A).

Important Notes

Install in accordance with all local and national electrical codes.



Caution! These controls must not be used to control equipment that is not visible from every control location.

They must also not be used to control equipment that could create hazardous situations such as entrapment if operated accidentally. Examples of such equipment which must not be operated by these controls include (but are not limited to) industrial doors, microwave ovens, heating pads, etc. It is the installer's responsibility to ensure that the equipment being controlled is visible from every control location and that only suitable equipment is connected to these controls.

Environment: Ambient operating temperature: 32 to 104 °F (0 to 40 °C), 0 to 90% humidity, non-condensing. Indoor use only.

Spacing: If mounting one control above another, leave at least 4½ in. (114 mm) vertical space between them.

Faceplates: Use Lutron *Stanza* faceplates for best color match and aesthetic appearance. Do not paint controls or faceplates.

Cleaning: To clean, wipe with a clean damp cloth. **DO NOT** use any chemical cleaning solutions.

Wallboxes: Lutron recommends using 3½ in. (89 mm) deep wallboxes for easier installation. Several controls may be installed in one multigang wallbox — see Derating Chart.

RF Device Placement: RF dimmers and switches must be located within 20 feet (6 m) of an RF signal repeater or a device configured as a repeater.

Stanza RF dimmers or switches cannot be controlled by the system until they are addressed and programmed. They will work as stand-alone controls only.

Multigang Installations

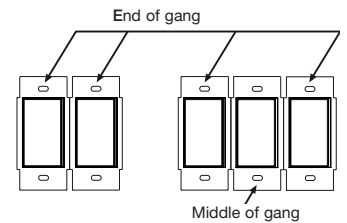
In multigang installations, several controls are grouped horizontally in one multigang wallbox.

When combining controls in a wallbox, derating is required.

Derating Chart

Control	Load Type	End of Gang	Middle of Gang
SZ-6D, SZ-6ND	Incandescent	500 W	400 W
	MLV	400 W/ 500 VA	300 W/ 400 VA
SZ-6ANS	Lighting	5 A	3.5 A
	Motor	3 A	3 A

Control Location for Ganging



Installation



Caution! Locate and remove fuse or lock circuit breaker in the OFF position before proceeding. Wiring with power ON may result in personal injury or death.

Short Circuit Check: Check the installation for short circuits before installing control(s). With power OFF, install standard mechanical switch(es) between hot and load. Restore power. If lights do not work or a breaker trips, correct wiring and check again. Install control(s) only when short is no longer present. Warranty is void if control is turned ON with a shorted circuit.

1. Turn power OFF at fusebox or circuit breaker.

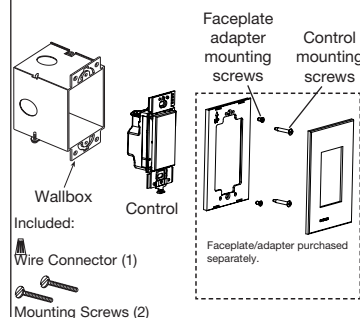
2. Prepare wires. When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connector.

Note: Wire connectors provided are suitable for copper wire only.

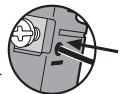
- Wire Connector:**
- Strip insulation 3/8 in. (9.5 mm) for #14 AWG (1.5 mm²) wire
 - Strip insulation 1/2 in. (12.7 mm) for #16 or 18 AWG (1.0 mm² or 0.75 mm²) wire
 - Use to join one #14 AWG (1.5 mm²) or #12 AWG (2.5 mm²) ground wire with one #18 AWG (0.75 mm²) control ground wire.

Twist wire connector tight. Trim or strip wallbox wires to the length indicated by the strip gauge on the back of the control.

Mounting Diagram



Push-In Terminals: Insert wires fully. Push-in terminals are for use with #14 AWG (1.5 mm²) solid copper wire only. DO NOT use stranded or twisted wire.



OR
Screw Terminals: Tighten securely to 5 in-lbs (0.55 N•m). Screw terminals are for use with solid copper wire only. DO NOT use stranded or twisted wire.



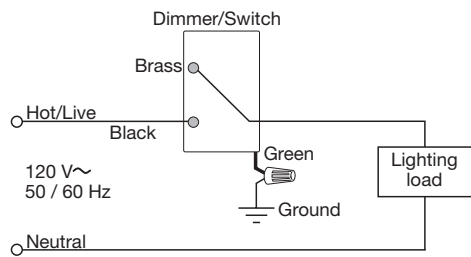
- 3. Wire controls as follows:**
- Single location installation:** See Wiring Diagrams 1 and 2.
- Power Booster and Interfaces:** When using power boosters or interfaces, see wiring diagrams provided with the interface.
- 4. Push all wires back into the wallbox and loosely fasten the control to the wallbox using the control mounting screws provided. Do not pinch the wires.**
- 5. Attach Lutron *Stanza* faceplate adapter and faceplate.**
- Install faceplate adapter onto front of control(s).
 - Tighten control mounting screws until faceplate adapter is flush to wall (do not over-tighten).
 - Snap faceplate onto faceplate adapter, and verify that control is aligned properly.
 - If control(s) is (are) misaligned, loosen mounting screws appropriately.
- 6. Restore power.** Check for correct local operation (see Dimmer Operation and Switch Operation).

FCC Information

Note: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. Operation is subject to the following: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

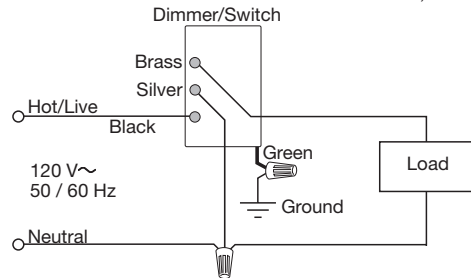
Wiring Diagram 1

Single Location Installation
SZ-6D

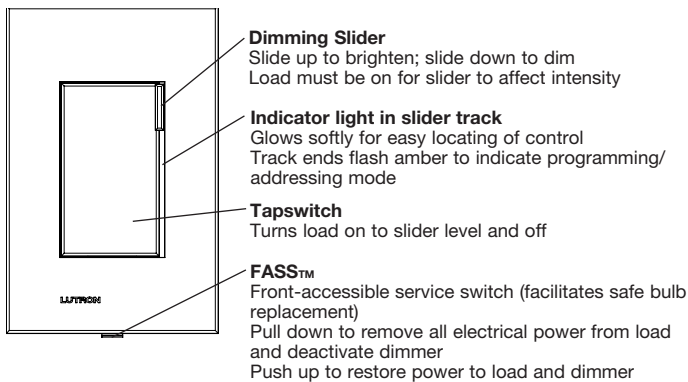


Wiring Diagram 2

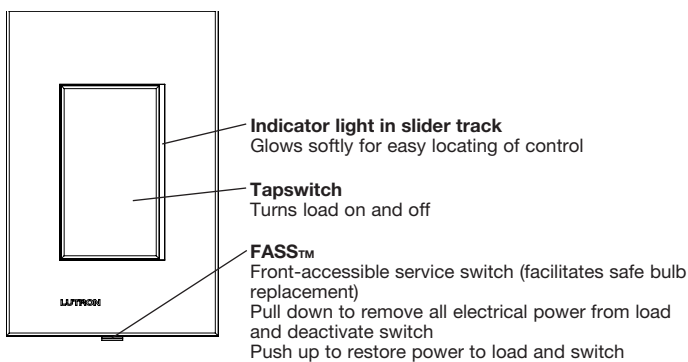
Single Location Installation with Neutral
SZ-6ND, SZ-6ANS



Dimmer Operation (SZ-6D, SZ-6ND)



Switch Operation (SZ-6ANS)



Lamp Replacement



Caution! For any procedure other than routine lamp replacement, power must be disconnected at the main electrical panel. Working with power ON may result in personal injury or death.

For routine lamp replacement, remove power from the fixture(s) by pulling down the FASS switch on the Dimmer/Switch.

Troubleshooting Guide

Symptom	Cause and Action
Load is off and there is no indicator on the dimmer/switch	Power not present <ul style="list-style-type: none"> • Circuit breaker OFF or tripped. Perform short circuit check. • FASS is in the OFF position. Move FASS to the ON position by fully pushing it up.
	Wiring error <ul style="list-style-type: none"> • Check wiring to be sure it agrees with installation instructions and wiring diagrams.
	Lamps burned out or not installed <ul style="list-style-type: none"> • Replace or install lamps.
	Diode lamps <ul style="list-style-type: none"> • Replace with non-diode lamps.
	Damaged dimmer/switch <ul style="list-style-type: none"> • Device may have been damaged by previous overload or miswire. Replace device.
Dimmer/switch indicator is on but load cannot be turned on and/or cannot be turned off	Wiring error <ul style="list-style-type: none"> • Check wiring to be sure it agrees with installation instructions and wiring diagrams.
	Damaged dimmer/switch <ul style="list-style-type: none"> • Device may have been damaged by previous overload or miswire. Replace device.
Light turns ON and OFF continuously	Load is less than minimum load requirement <ul style="list-style-type: none"> • Make sure the connected load meets the minimum load requirement for that control. See Load Specifications table.
	Improper load type <ul style="list-style-type: none"> • Check that the load being dimmed is not non-dimmable. See Load Specifications table.
Lights don't switch ON/OFF from keypad	Improper programming <ul style="list-style-type: none"> • Check programming in the <i>Stanza</i> software.
	Out of RF range <ul style="list-style-type: none"> • Ensure device is within 20 feet (6 m) of another device configured as a repeater.
	Wiring <ul style="list-style-type: none"> • Wiring error. Check wiring to be sure it agrees with installation instructions and wiring diagrams.
Faceplate is warm	Solid-state control dissipation <ul style="list-style-type: none"> • Solid-state dimmers and switches internally dissipate about 2% of the total connected load. It is normal for dimmers and switches to feel warm to the touch during operation.
Control is buzzing or humming	It is normal for dimmers and switches to emit a slight buzzing or humming sound.

Returning the Dimmer/Switch to Factory Settings

1. Triple-tap the tapswitch quickly (within 1 second).
2. Press and hold the tapswitch for 5 seconds (until the load flashes).
3. Triple-tap the tapswitch quickly again.

Notes

- Returning to factory settings will clear all programming from the dimmer/switch, and will prevent it from being controlled over RF from a keypad or control interface.
- After being returned to factory defaults, the device will need to be re-addressed as part of a system.

Technical support: USA, Canada, Caribbean: 1.800.523.9466
Mexico: +1.888.235.2910
Central/South America: +1.610.282.6701

Warranty: 1-year limited warranty standard. 2-year parts and labor warranty, with 8-year pro-rated parts replacement on commissioned systems.

These products may be covered under one or more of the following U.S. patents: 5,248,919; 5,637,930; 5,838,226; 5,848,054; 5,905,442; 6,687,487; 6,803,728; and corresponding foreign patents. U.S. and foreign patents pending. Lutron and the sunburst logo are registered trademarks and FASS and Stanza are trademarks of Lutron Electronics Co., Inc.
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