

Frequently Asked Questions

If dimmed lights are being turned on and off won't the lights seem to be flickering?

No.

Dimmers operate twice per line cycle (120Hz), too fast for your eye to perceive. Also, lamp filaments hold their heat long enough to help average the light output.

Do Lutron dimmers increase halogen lamp life?

Yes.

Dimming increases incandescent lamp life, and halogen lamps are incandescent lamps. Lutron test data suggests that all halogen lamps will have an expected lamp life similar to that of other incandescent (non power factor corrected) lamps when dimmed, i.e. a halogen lamp dimmed by 25% has a life extension of about four times that of a non-dimmed lamp.

Lutron is continuing to test our dimmers with various halogen lamps from many lamp manufacturers.

Can neon/cold cathode lamps be dimmed?

Yes.

Neon/cold cathode lamps can be dimmed with special dimmers designed to operate on highly inductive magnetic (core and coil) boost transformers, see pg.22.

A dimming range of 95%–10% should be possible, see Lutron Application Note 25 at www.lutron.com/applicationnotes.

Will Lutron dimmers affect high-end output?

When the Lutron dimmer is set at full, most users will not notice a difference from a switched light.

A light meter will register a slightly lower high-end light output, as Lutron dimmers automatically save electricity and make incandescent bulbs last longer.

What can I do to minimize lamp hum?

Occasionally, lamps may generate noise when dimmed. This noise is caused by vibration of the lamp filament as the dimmer rapidly switches the lamp on. Lamp buzz, if it occurs, is generally noisiest at the mid-range (50%) dimming level. Lutron suggests the following solutions:

- Select another brand of lamp or use lower wattage lamps (100W or less)
- Use rough service lamps
- Use a physically smaller lamp
- Install a lamp debuzzing coil in the lighting circuit, see pg.189

Frequently Asked Questions

How can I minimize Radio Frequency Interference?

Radio Frequency Interference (RFI) occurs when solid-state dimmers emit noise that interferes with AM radios, audio equipment, etc. Every Lutron dimmer includes radio frequency interference suppression circuitry. Additional filtering may be required in some applications. In instances where interference does occur, Lutron recommends the following:

- Ensure there is 6' (2m) between the dimmer and audio equipment
- Place the dimmer on a separate circuit from the audio equipment
- Run dimmer wiring in its own metal conduit
- Use a lamp debuzzing coil to filter the RFI, pg.189
- Use an in-line filter for the audio equipment
- Use an electronic low-voltage dimmer (requires a separate neutral wire) for incandescent loads

See Application Note #13 at www.lutron.com/applicationnotes.

What is common neutral interaction?

Common neutral interaction occurs between two or more dimmers that share the same neutral wire. When solid-state dimmers operate, voltage spikes occur and are transmitted onto the neutral wire. Normally this is of little concern.

When the neutral wire is common (to two or more phases of a 3-phase, 4-wire system) the voltage spikes may feed back to the dimmers. The common neutral wire can cause interaction between the dimmers that are on different phases.

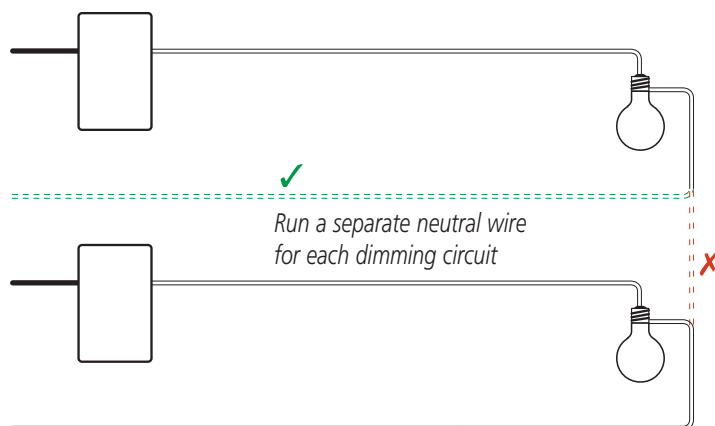
Following are symptoms of common neutral interaction:

- Lights flicker steadily at certain dimmer settings
- Lights flash to full output at certain dimmer settings
- Light level of a dimmer on one phase inadvertently changes when a dimmer on another phase is adjusted

Lutron recommends the following methods to avoid common neutral interaction:

- Run separate neutral wires for each dimming circuit, from each dimmer's load to the distribution panel
- Install a lamp debuzzing coil, pg.189, in series with each dimmer

See Application Note #17 at www.lutron.com/applicationnotes.



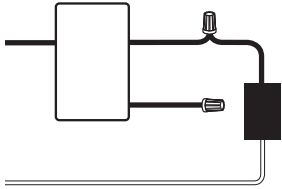
Frequently Asked Questions

Can I use a 3-way dimmer in a single-pole application?

Yes.

If a product purchased as a 3-way control needs to be used in a single-pole application, cap off one of the traveler wires with a wire connector.

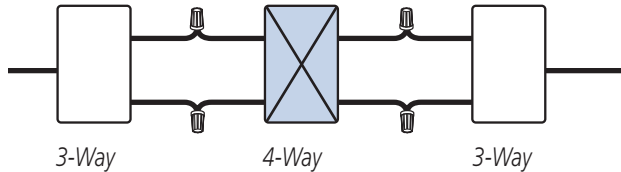
See the complete list of wiring diagrams, pgs.204-205.



Can I use a 3-way dimmer in the 4-way switch location?

No.

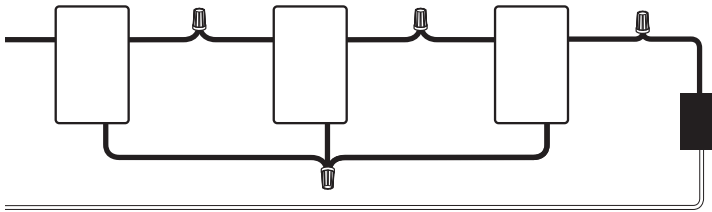
3-way dimmers may only be located in either of the 3-way switch positions.



Can I use a standard 3-way switch with a multi-location dimmer?

No.

Multi-location dimmers do use standard 3-way wiring, but make use of one wire for communications while the other carries the load current. A 3-way switch is not compatible with this configuration.



What is a FASS™?

All Lutron dimmers have an air-gap off. Typically, this is integrated into a slider or paddle switch. Some dimmers have electronics that stay active when the lights are off, such as an infrared receiver. For these products, the air gap is activated by a separate Front Accessible Service Switch (FASS). When open, the FASS completely disconnects power to the load. This ensures that there is no leakage current to the fixture during routine lamp maintenance. In addition, when the FASS is open, no remote locations (3-way, etc.) can re-energize the circuit.



Vareo®



Maestro®

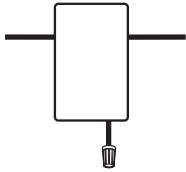


Faedra™

Frequently Asked Questions

There is no ground wire in the box, what do I do with the green wire?

When no grounding means exists within the wallbox, the 2002 NEC® article 404.9 exception to (b) permits a dimmer without a ground connection to be installed as a replacement. For this type of installation, cap or remove the dimmer ground wire. A dimmer installed under this exception must be provided with a plastic, noncombustible wallplate (all Lutron plastic wallplates meet these requirements).



How do I tell magnetic and electronic low-voltage transformers apart?

Transformers may have magnetic (core and coil, toroidal) or electronic (solid-state) clearly indicated on the product. However, this is not a required marking and will not be found on all products.

The best way to determine transformer type is to contact the manufacturer.

A hint of the transformer construction can often be found in the transformer's weight.

Magnetic (core and coil, toroidal) transformers are often heavy for their size.

Electronic (solid-state) transformers tend to be smaller and are often light for their size.

See Application Note #19 at www.lutron.com/applicationnotes.

What do I use for self-ballasted 'dimmable' compact fluorescent lamps?

Lutron does not currently offer any products UL listed for these devices.

For fluorescent dimming, use a Lutron electronic fluorescent dimming ballast and a dimmer specifically UL listed for use with that ballast.

Why are some dimmer wires not copper colored?

Lutron uses tinned copper wires on some of our products. These wires are silver in color as a result of the tinning process. Tinned copper wires are compatible with copper wiring and wire nuts.

Lutron uses tinned copper wires to avoid stray strands and to make our products easier to install.

