

## LX202x and LX204x Series Dimming Application Sheet

This guide answers typical questions encountered by LSI with dimming our LX202x and LX204x product family – Example: LX2020, LX2024, LX2025, LX2040, LX2042, etc.

Dimming will not negatively affect the already long life expectancy of our product, in fact, it may actually increase the life of the LED due to the reduced heat load on the LED.

Dimming will not negatively affect the color or quality of the light from our product.

Dimming LED's is significantly different than dimming traditional incandescent lights. First, due to the low wattage of the LED fixture, some Dimmers require multiple LED fixtures on one circuit in order to dim properly. If the light turns off or a fixture flickers, add more fixtures to that circuit, as the dimmer (not the fixture) has a minimum load requirement. Second, due to the electronic LED driver, the total load of the circuit when dimming may not reduce proportionately to the lighting level – the drivers still require a certain amount of wattage to function. Finally, inrush current must be taken into account for the maximum number of fixtures on a given circuit. For example, the number of 25W LED fixtures on a 600W dimmer is not necessarily 24. The LED only draws 25 watts once operating continuously at 100% power, it may have an inrush current that spikes during every half cycle due to dimming and this can put significant stress on the dimmer.

The LX202x and LX204x family uses a Magtech LP1025 driver with AC-Dim™ technology which is compatible with most low-voltage electronic dimmers that use TRAILING EDGE or REVERSE PHASE dimming. This product will dim to about 15-20% of initial light output.

DO NOT USE WITH regular INCANDESCENT or FLOURESCENT dimmers.

DO NOT USE WITH LEADING EDGE or FORWARD PHASE dimmers.

Line voltage incandescent and low-voltage fixtures can be mixed on the same track circuit, but the correct low-voltage dimmer (for the given load) must be used. The total load must not exceed the dimmers capacity. Do not use products with magnetic transformers on the same track circuit.

See chart for recommended Low-Voltage electronic dimmers.

| <u>Series</u>         | <u>Model</u> | <u>Power</u> | <u>Series</u>           | <u>Model</u>  | <u>Power</u> |
|-----------------------|--------------|--------------|-------------------------|---------------|--------------|
| LUTRON <i>Skylark</i> |              |              | LUTRON <i>Interface</i> |               |              |
| Single Pole           | SELV-300P    | 300W         | ELVI-1000               |               |              |
| 3-Way                 | SELV-303P    | 300W         |                         |               |              |
| LUTRON <i>Diva</i>    |              |              | LEVITON <i>Surslide</i> |               |              |
| Single Pole           | DVELV-300P   | 300W         | Single Pole             | R02-06615-POW | 600W         |
| 3-Way                 | DVELV-303P   | 300W         | 3-Way                   | R02-06615-POW | 600W         |
| LUTRON <i>Maestro</i> |              |              | LEVITON <i>Vizia</i>    |               |              |
| Single Pole           | MAELV-600    | 600W         | Single Pole             | VZE06-1LZ     | 600W         |
| LUTRON <i>Nova</i>    |              |              | 3-Way                   | VZE06-1LZ     | 600W         |
| Single Pole           | NELV-450     | 450W         |                         |               |              |