

Electronic Low Voltage (ELV) Dimming

History

Electronic Low Voltage (ELV) Dimmers were originally designed to control Electronic Low Voltage Transformers used in low voltage (12V) MR16 type fixtures. ELV dimmers and transformers are more expensive but offer quieter operation, better control and tend to last longer than Magnetic Low Voltage Transformers (MLV). Also referred to as **Reverse Phase** Dimmers.

Where Used

ELV Dimming Option is used in LITON General Purpose Recessed Housings and is specified as “DLV” when ordering. Please see specification sheets for further details.

Synonymous Terms:

Electronic Low Voltage, ELV, Trailing Edge and Reverse Phase

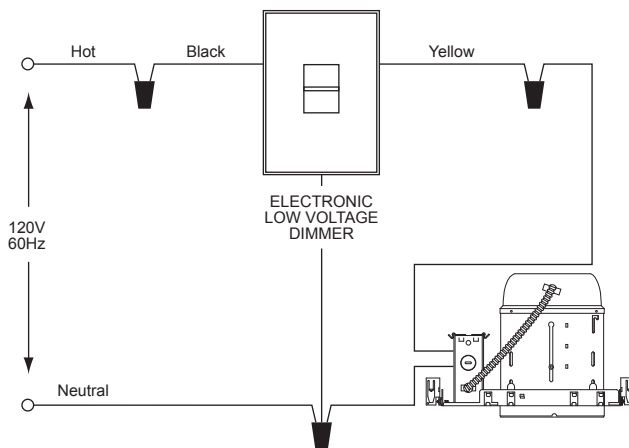
Benefits

- ELV dimming drivers from Liton are the LED driver most widely tested and approved by dimmer manufacturers (see list).
- Works better on LEDs than most magnetic low voltage (MLV) drivers.
- Allows smooth dimming down to 5% depending upon the dimmer’s limitations.

Limitations

- ELV wall dimmers can be more expensive than incandescent or magnetic low voltage dimmers.
- Smaller install base could mean replacing incompatible dimmers on retrofit projects.
- ELV drivers should not be used with incandescent dimmers because doing so could cause any of the following malfunctions: dimmer buzz, lamp flicker, interaction between circuits or radio frequency interference (RFI).
- All ELV drivers and dimmers are 3-wire, requiring a neutral wire. This can result in having to pull additional wire on remodel projects.

Electronic Low Voltage (ELV) Dimmer Wiring Diagram



Examples of ELV dimmers:

(See next page for a more comprehensive list):

Manufacturer	Style	Model
Lutron	Skylark	SELV-300P
Lutron	Diva	DVELV-300P
Lutron	Maestro	MAELV-600
Lutron	Nova	NTELV-600
Lutron	Vierti	VTELV-600
Leviton	Surslide	6615-POW
LiteTouch	Inverse Phase	08-2140-01
LiteTouch	8-Channel	6615-POW