

# **LED Dimmer Controls**

Dimmer Controls That Can Be Used to Comply with 2019 California Title 24, Part 6 for Residential Indoor Lighting and Switching Devices and Controls and 2017 NEC®



Leviton offers many products that help lower electrical costs and add convenience to everyday living. Replacing standard switches with dimmers helps to reduce energy consumption and is a convenient way to create ambiance in a home.

Residential indoor lighting requirements in the State of California requires all forward phase-cut dimmers used with LED light sources to comply with NEMA SSL 7A as well as the NEC 2017. Leviton offers a wide range of dimmers that comply with these requirements.

### NEW CONSTRUCTION/ADDITIONS (For permits filed after 1/1/2020)

#### **CHALLENGE**

Residential new construction in the State of California must adhere to the 2019 California Title 24, Part 6 energy code requirements for indoor lighting switching devices and controls as well as NEC 2017.

NEMA SSL 7A

- The NEMA standard provides compatibility requirements when a forward phase-cut dimmer is combined with one or more dimmable LED Light Engines (LLEs)
  - The reliability of the dimmer and LLE are not affected by combining them
  - Dimming behavior meets or exceeds what is specified in the standard

NEC 2017

- Prohibits current on the equipment grounding conductor during normal operation (Delayed effective date: January 1, 2020)

#### **SOLUTION**

Leviton offers a wide range of LED dimmers that can be used to comply with NEMA SSL 7A and NEC 2017.

- Designed to optimize performance with dimmable LED loads
- Offers smooth operation for precise dimming, a broader dimming range and flicker free operation
- 0-10V and ELV (Reverse Phase) options also available
- 24/7 access to online LED compatibility tool to pair Leviton dimmers with LED lamps

#### RETROFIT/REPLACEMENT CONSTRUCTION

#### **CHALLENGE**

Residential retrofit construction may or may not have a neutral in the wallbox.

NEC 2017

- Prohibits current on the equipment grounding conductor during normal operation (Delayed effective date: January 1, 2020)
- Although the NEC 2017 prohibits current on the equipment grounding conductor, there is an exception for retrofit and replacement construction where a neutral wire is not in the wallbox

### **SOLUTION**

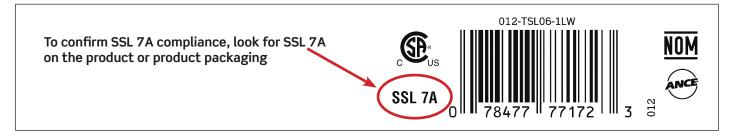
# Leviton LED dimmers can be used to replace an existing wall switch.

- All non-neutral dimmers can be used in replacement and retrofit applications
- Devices that introduce current to the equipment grounding conductor, or devices that are listed for retrofit use only (i.e. DDL06) can be used
- The number of these devices is limited to 5 per branch circuit and 25 per feeder circuit
- 24/7 access to online LED compatibility tool to pair Leviton dimmers with LED lamps

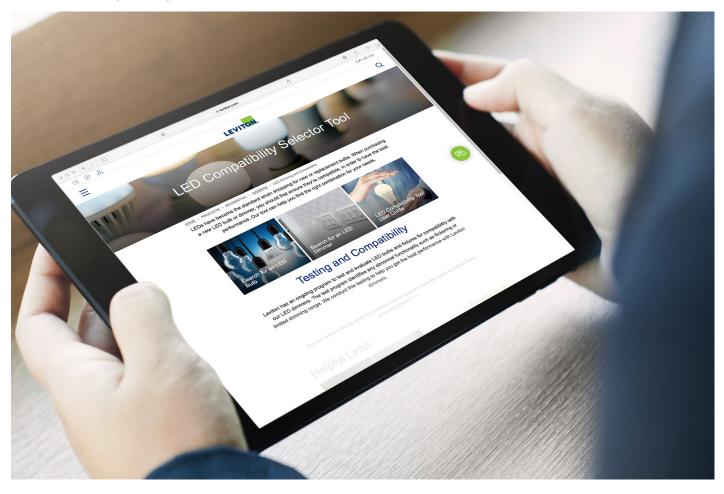
### **Ordering Options**

Product Line	Cat. No.	Description	New Construction	Retrofit/Replacement
Decora Smart®	DWVAA	300W LED Digital Dimmer with Amazon Alexa Built-In, Neutral Required	<b>~</b>	<b>~</b>
	DW6HD	300W LED Digital Dimmer with Wi-Fi® Technology, Neutral Required	<b>✓</b>	<b>~</b>
	DW1KD	450W LED Digital Dimmer with Wi-Fi® Technology, Neutral Required	<b>~</b>	<b>~</b>
	DZ6HD	300W LED Digital Dimmer with Z-Wave® Plus Technology, Neutral Required	<b>~</b>	<b>~</b>
	DH6HD	300W LED Digital Dimmer with HomeKit™ Technology, Neutral Required	<b>✓</b>	<b>~</b>
	DL6HD	300W LED Digital Dimmer with Lumina™ RF Technology, Neutral Required	<b>✓</b>	<b>~</b>
	DL1KD	450W LED Digital Dimmer with Lumina™ RF Technology, Neutral Required	<b>~</b>	<b>~</b>
Decora Digital™	DDL06-1L	300W LED Digital Dimmer, Ground Required	×	<b>~</b>
	DDM06	300W LED Digital Dimmer, Neutral Required	<b>~</b>	<b>~</b>
	DDL06-BL	300W LED Digital Dimmer with Bluetooth® Technology, Ground Required	×	<b>~</b>
	DDMX1	450W LED Magnetic Low Voltage Digital Dimmer with Bluetooth® Technology, Neutral Required	<b>✓</b>	<b>~</b>
	DDE06	300W LED Electronic Low Voltage Digital Dimmer with Bluetooth® Technology, Neutral Required	<b>~</b>	<b>~</b>
	DD710	10A LED 0-10V Digital Dimmer with Bluetooth® Technology, Neutral Required	<b>~</b>	<b>~</b>
Decora® Slide	DSL06	300W LED Preset Slide Dimmer	<b>~</b>	<b>~</b>
	DSM10	450W LED Magnetic Low Voltage Preset Slide Dimmer	×	<b>~</b>
	DSE06	300W LED Electronic Low Voltage Preset Slide Dimmer, Neutral Required	<b>✓</b>	<b>~</b>
	DS710	10A LED 0-10V Preset Slide Dimmer, Neutral Required	<b>~</b>	<b>~</b>
IllumaTech®	IPL06	150W LED Preset Slide Dimmer	<b>~</b>	<b>~</b>
	IP710	10A LED 0-10V Preset Dimmer, Neutral Required	<b>~</b>	<b>~</b>
SureSlide®	6672	150W LED Slide Dimmer	<b>~</b>	<b>~</b>
	6674	150W LED Preset Slide Dimmer	<b>~</b>	<b>~</b>
Toggle Slide	TSL06	300W LED Preset Slide Dimmer	<b>~</b>	<b>~</b>
	TSM10	400W LED Preset Slide Dimmer	<b>~</b>	<b>~</b>

**Note:** The dimmers listed in the above chart are compliant with NEMA SSL 7A when in the factory default state. Any changes made to the minimum adjustment feature in certain models may render the device non-compliant.



# **Leviton LED Compatibility**



Leviton is dedicated to providing our customers with the best experience when using Leviton dimmers. We work closely with LED lamp manufacturers and have a dedicated team in our in-house lab that conducts ongoing testing of the latest LED lamps/fixtures with our LED dimmers to determine the best combinations.

This test program measures a number of factors including dimming range and irregular functionality such as flickering, slow start up, noise (humming/buzzing) levels and inconsistent illumination. The testing is ongoing; and the tool is updated regularly with the latest results. Only pairings that meet our rigorous test criteria are published in our user-friendly online LED Compatibility Selector Tool. **www.leviton.com/led.** 



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