

# Dimmer Buying Guide



**THE FUTURE IS ON®** 



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Dimmers offer an ideal way to create ambiance in a room or adjust lighting for a specific task or activity. Leviton offers a wide range of dimmers to suit every lifestyle. Our selection of LED compatible dimmers helps ensure smooth, flicker-free dimming when used with the latest LED bulbs; and our line of Smart dimmers is the perfect way to control lighting by app or voice from within your home or while away.

Dimmers easily replace standard switches and can be used in any room of the home. There are several factors to consider when choosing a dimmer. This guide will provide insight into the options available so you can choose the right solution to enhance your home.





# **Dimmer/Bulb Compatibility**

Choosing the right dimmer and bulb combination is a valuable first step to help ensure that you experience carefree dimming for years to come. There are many different types of dimmers and bulbs on the market, but not all dimmers are designed to control all types of bulbs. LEDs are the most popular bulbs used in homes today because they are energy efficient, affordable and have a long life span.

The chart below provides helpful information pertaining to dimmer and bulb compatibility.

Dimmer	Function/Application	Helpful Hints
LED (Light Emitting Diode)	<ul> <li>Works with dimmable LED bulbs</li> <li>Some models may also be compatible with incandescent, dimmable CFL and magnetic low voltage bulbs</li> <li>Provides full-range dimming, smooth start-up, and eliminates flickering of lights</li> </ul>	<ul> <li>It's important to have a good dimmer/bulb pairing to avoid incompatibility issues such as flickering, limited dimming range, slow start-up or inconsistent illumination</li> <li>Be sure the bulb package indicates DIMMABLE</li> <li>Most bulb and dimmer manufacturers have compatibility information listed on their websites</li> <li>Leviton's compatibility tool can be found at: leviton.com/LED</li> </ul>
Incandescent/Halogen	- Works with incandescent and halogen bulbs	- These types of dimmers are not designed to control LED bulbs (not LED rated) and using them may result in inconsistent or limited performance
CFL (Compact Fluorescent Lamp)	<ul> <li>Works with dimmable CFL bulbs</li> <li>Some models may also be compatible with incandescent, dimmable LED and magnetic low voltage bulbs</li> <li>Provides full-range dimming, smooth start-up, and eliminates flickering of lights</li> </ul>	- Be sure the bulb package indicates DIMMABLE
ELV (Electronic Low Voltage)	<ul> <li>Works with electronic low voltage transformers used in low voltage fixtures and dimmable LED power supplies</li> <li>ELV track lighting, under cabinet lighting and LED strips</li> </ul>	<ul> <li>ELV dimmers require a neutral wire for installation and perform well when paired with LED bulbs</li> <li>Also referred to as trailing-edge and reverse phase dimmers</li> </ul>
MLV (Magnetic Low Voltage)	<ul> <li>Works with magnetic low voltage transformers used in low voltage lighting fixtures</li> <li>Suitable for recessed lights that are magnetic low voltage such as under cabinet lighting and recessed lights</li> </ul>	- Magnetic low voltage transformers tend to be larger and heavier than electronic low voltage
0-10V	<ul> <li>LED dimming protocol used when control signal is DC voltage that varies between zero and ten volts</li> <li>Common in controlling fluorescent dimming ballasts and some drivers for LED lighting</li> <li>Used in indoor and outdoor lighting in high-end residential and commercial spaces</li> </ul>	<ul> <li>Often dimming ballasts and dimming LED power supplies use 0-10V control signals to control the dimming functions</li> <li>To choose the proper control, be sure to know the maximum "sinking" current needed to control the ballast</li> <li>Use the "sinking" capability of the dimmer and divide by the source current of each ballast to determine the maximum number of ballasts that can be controlled by that device</li> </ul>
Fluorescent	- Works with fluorescent fixtures that incorporate rapid start fluorescent bulbs and dimming ballasts	

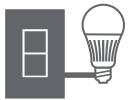


# Wiring Options

All dimmers are designed for either single pole, 3-way or multi-location applications. Some models are single pole and 3-way capable. Be sure to reference the packaging to choose the proper dimmer based on the application.

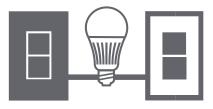
# Single Pole

Controls light(s) from one location.



## 3-Way

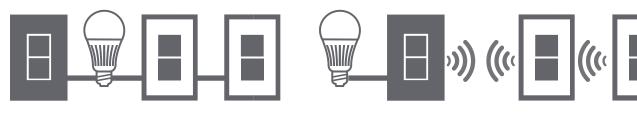
Controls light(s) from two locations. Usually, in a 3-way application, the dimmer is at one location from which the user can switch the light(s) ON/OFF and adjust the brightness level. The second location is generally a 3-way switch that only allows the user to switch the light(s) ON/OFF.



## **Multi-Location**

Controls lights from three or more locations. Designed for larger areas or rooms, the dimmer is at one location and the dimmer companions are in the other locations. The user can switch the lights ON/OFF and adjust the brightness level from all locations.

Decora Smart<sup>®</sup> Wi-Fi<sup>®</sup> Dimmers can also be used with Wire-Free Dimmer Companions. **Wire-Free Companions are** wireless and adhere to any interior surface to create another dimmer location.



WIRED

WIRE-FREE (Decora Smart Wi-Fi only)



# Decora Smart<sup>®</sup> Wi-Fi<sup>®</sup> Dimmers

Today, smart technology is everywhere – including in dimmers. Leviton Decora Smart dimmers bring app control or voice command dimming with Amazon Alexa<sup>™</sup>, Google Home<sup>™</sup> or Apple Home<sup>®</sup>/Siri<sup>®</sup> to your home. Imagine using your voice or your smartphone or tablet to dim and time your lights from inside your home or while away. Decora Smart dimmers make it easy to enjoy scheduling lighting events, full-range dimming, adjustable fade rates and other exciting functions to create ambiance, enhance safety and make every day living more convenient. Smart dimmers come in models that work in newer and older homes with wall mount and plug-in options to meet every need.



#### D26HD

## Dimmer

- Connects to a Wi-Fi network and the My Leviton app to provide wireless dimming
- Use your voice with Hey Google, Amazon Alexa or Apple Siri to dim and brighten connected lighting
- Use the My Leviton app to control light level or adjust schedules



#### No-Neutral Dimmer and Wi-Fi Bridge

- Ideal for use in older homes or in homes without neutral wiring in the wallbox
- Remote control, easy scheduling and voice command, without requiring a neutral wire for installation
- To enable smart functionality, this dimmer requires a Wi-Fi Bridge which is a small, discreet plug-in



D2MSD

# **Motion Sensing Dimmer**

- Provides the benefits of a smart dimmer plus hands-free motion detection
- Use the My Leviton app for easy set up and adjustment of schedules, dimmer and motion sensor settings, and remote control of lighting
- Motion features such as night preset light levels, motion snooze and room occupancy response are easily configured through the app



#### D23LP

## Indoor Mini Plug-In Dimmer

- An easy, affordable way to add smart lighting control to any room without wiring, just plug into an outlet
- Use your voice with your favorite voice assistant or the My Leviton app to dim and brighten connected lamps
- Custom settings for preset light levels, fade rates, and bulb types



# Decora<sup>®</sup> LED Dimmers

Good design stands the test of time and our hallmark Decora brand is no exception. From the first Decora switch introduced in 1973 to a full collection of products today, Decora has set the industry standard for style and performance.



LE	VITON		



#### DDL06

## Decora Digital®

- Decora rocker switch for On/Off and separate dim/bright bar
- Includes ability to set maximum brightness level, low end dimming range and fade rates

DSL06	
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#### Decora Slide

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IPL06

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SureS

- IllumaTech®
- SureSlide®
- 541051140
- Slide bar to control the level of light
  Separate On/Off function preserves the dimming level that has been set and varies by model, may be either a rocker switch or push-button switch

# Traditional LED Dimmers

For a traditional home, the classic style of Rotary or Toggle dimmers offer the ideal way to upgrade the functionality of devices without compromising the character of the décor.



# Trimatron<sup>®</sup> Rotary

- Switch lights On/Off by pushing the knob
- Adjust to the desired level by rotating the knob



## **Toggle Slide**

- Traditional switch turns the lights On/Off
- Separate slide bar that moves up and down to adjust the light level

TSL06



# Lamp Dimmers

Aside from the more common dimmers, lamp dimmers provide dimming control for plug-in lamps.



## TBL03

## Table Top

- The cord of this dimmer is plugged into the outlet, then the cord from the lamp is plugged into an outlet on the dimmer
- The dimmer sits on a table or desk providing easy access to regulate the level of light desired
- No wiring is required



# 6250

# Cord

- Installed directly on the cord of the lamp to regulate the level of light desired
- No wiring is required



## 6151

#### Socket

- Replaces the standard bulb holder on lamps allowing dimming by turning the knob



# **Common Lighting Terms**

Watt - a measurement of the rate at which electrical energy is dissipated.

Lumen - a measurement of illumination or brightness. The higher the lumen value, the brighter the bulb.

**Kelvin** – LED bulbs have a range of what is known as "color temperature", which is measured in Kelvin units. It is the number of Kelvin units that make some LEDs appear stark white and others radiate a warmer hue similar to the incandescent bulbs we are used to.

Kelvin Color Temperature	2700K	3000К	3500K	4100K	5000K
Ambiance	Соzy	Relaxing	Friendly	Clean	Institution
Applications	- Living/Family Room - Dining Room - Bedroom	- Living/Family Room - Dining Room - Bedroom	- Kitchen - Bathroom	- Garage - Basement	- Commercial - Industrial

**Heat Sink** - some dimmers contain a metal mounting strap that has fins designed to dissipate heat from the device. If more than one dimmer is being installed in a multi-gang application, the user may be required to break off the fins before installing. Please refer to installation instructions for when it is necessary to remove the fins.

**Derating** – derating may be required if you have two or more dimmers sharing a wallbox to help dissipate the internal heat of the dimmer. Some dimmers will have fins (heat sink) on the side which will need to be removed which decreases the wattage capacity that the dimmer can control. Be sure to refer to the dimmer instruction sheet for fin removal. Derating is NOT required when using dimmable LED or dimmable CFL bulbs.

Dimmer Type	1 Dimmer	2 Dimmers	3 Dimmers	
LED/CFL	No derating required			
Incandescent/Halogen	600W per dimmer	500W per dimmer	400W per dimmer	
ELV	400VA	350VA	250VA	

**Neutral Wire** - for dimmers with higher ratings, or advanced technology, a neutral wire may be required for operation. The neutral wire is generally white and serves as a "path home" for the additional electricity used to power the dimmer.

**Ground Leakage** – some dimmers mention that a ground is required for installation. Similar to the neutral wire, some additional electricity may be needed to power the dimmer. These dimmers release very small amounts of power through the ground line, while also ensuring complete safety is maintained.

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