

# Receptacle Control Solutions

## Automatic Shutoff Controls for Plug Loads and Lighting

One of the simplest and most efficient ways to improve lighting efficiency is to automatically turn off the lights when they are not in use. A simple strategy involves Receptacle Control also known as Plug Load Control which automatically turns off plug loads when a space is vacated.

### What are Plug Loads?

Plug loads include devices that plug into a standard electrical outlet, often called “standby” or “vampire” loads. Products not in use or on standby account for as much as 25 percent of total electrical consumption in commercial buildings. These products typically still draw power even in an off state. Examples include task lighting, computers, monitors, cell phone chargers, personal fans or heaters, A/V equipment, and other electronic devices that can be switched off at night without causing harmful consequences.

### Interpreting the Codes

Energy codes now require Receptacle Control or Plug Load Control. Both ASHRAE 90.1-2010 and California Title 24 2013 require controlled receptacles to have the same automatic shutoff function as lighting using either occupancy sensing or schedule based control. Plug-in strips and devices cannot be used for code compliance. Title 24 and NEC also require the controlled receptacles to be permanently marked to differentiate them from uncontrolled receptacles.

### Receptacle Control Strategies

#### Occupancy Sensing Based Receptacle Control

Controls that monitor a space’s state of occupancy and will energize and de-energize a controlled receptacle based on occupancy.

#### Schedule Based Sensing Control

Controls that allow the user to set the day and time that a circuit will be energized and de-energized

### ASHRAE 90.1-2010

#### Automatic Receptacle Control

- At least 50% of all receptacles in private offices, open office areas (including modular partition receptacles) and computer classrooms must be controlled by an automatic control device:
  - An occupancy sensor that will turn receptacles off within 30 minutes of all occupants leaving a space
  - A scheduled basis using a time-of-day operated control device that turns receptacles off at specific programmed times
- Plug-in strips and devices cannot be used for compliance - the receptacle must be controlled

### California Title 24 2013

#### Section 130.5

#### Electrical Power Distribution Systems - Circuit Controls for 120 VAC Receptacles

- Both controlled and uncontrolled 120V receptacles shall be provided in each private office, open office area, reception lobby, conference room, kitchenette in office spaces, and copy room
  - Electric circuits serving controlled receptacles must be equipped with automatic shutoff controls such as occupancy sensors or an automatic time switch
  - At least one controlled receptacle must be installed within 6 feet of each uncontrolled receptacle or a split duplex receptacle with one controlled and one uncontrolled receptacle can be installed
  - Controlled receptacles must have a permanent marking to differentiate them from uncontrolled receptacles
- Hotel and motel guest rooms require at least 50 percent of receptacles to be auto off via an occupancy sensor, captive key switch, or automatic control so they are off within 30 minutes of vacancy
- Plug-in strips and devices cannot be used for compliance






## Leviton Receptacle and Lighting Control Solutions Controlled Receptacles and Wallplates, Marked

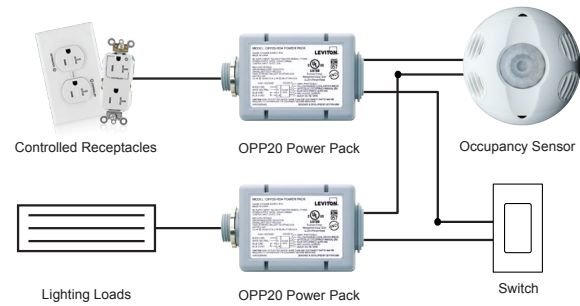
- Largest offering of marked controlled receptacles and wallplates - choose top or duplex marking

### Receptacle and Lighting Control with OPP20 Super Duty Power Pack

- OPP20 models support plug load control, switched daylighting, sensing control, and bi-level switching
- UL/cUL 916 Listed for Energy Management
- Exclusive self-detect configurable local switch input
- Robust and reliable with mechanical latching relays and industry-exclusive “fail-safe” design

#### What You Will Need





	Description
	OPP20 Super Duty Power Pack OPP20-0D2   OPP20-RD4
	Occupancy Sensor OSCxx-M
	Receptacle or Wallplate, Marked See Controlled Receptacle Marking Product Bulletin

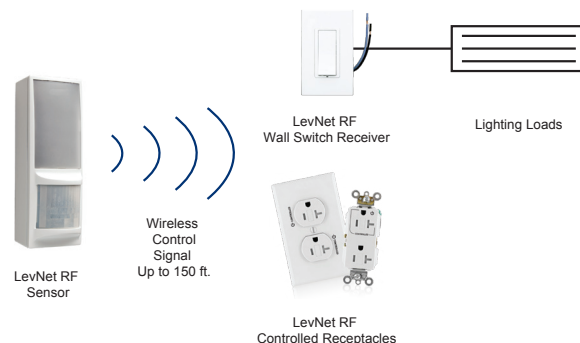


### Receptacle and Lighting Control with LevNet RF™ Receptacle

- Receptacle models include split and duplex with wireless on/off control of lamps, electronic devices, and appliances
- Sensor models are self-powered and wireless , using zero power for zero utility cost and making it easy to install with little to no interruption to operations - ideal for retrofits

#### What You Will Need



	Description
	LevNet RF Receptacle WSG15-0DZ (split duplex)   WSG15-TDZ (duplex)
	LevNet RF Occupancy Sensor WSCxx-IRW   WSWDR-IOW
	LevNet RF Wall Switch Receiver WSS20-xxx
	Wallplate, Marked See Controlled Receptacle Marking Product Bulletin

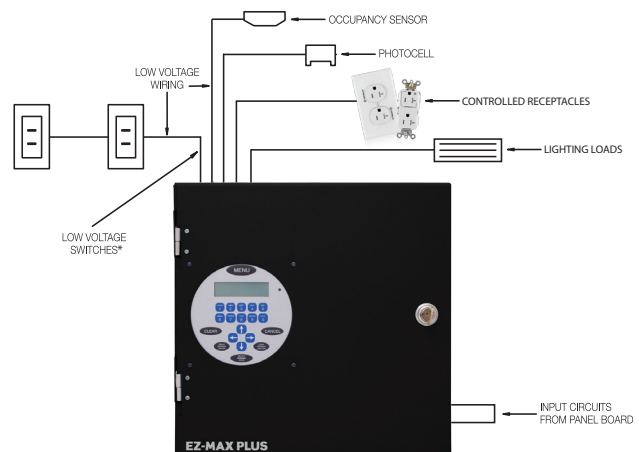


### Receptacle and Lighting Control with EZ-MAX® Plus Stand-Alone Relay System

- Compact design engineered to be contractor friendly, quick to install, and simple to configure
- Built-in astronomical time clock and scheduler
- Easy programming configurations
- Integrates low voltage inputs such as occupancy sensors and photocells

#### What You Will Need

	Description
	EZ-MAX Plus Relay Panel R08BD-xxx
	Receptacle or Wallplate, Marked See Controlled Receptacle Marking Product Bulletin



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