Control Six

SIX ENERGY-EFFICIENT LIGHTING CONTROL SOLUTIONS FOR EVERY BUILDING

PUTTING A STOP TO ENERGY WASTE®

WattStopper®

Six Common Applications for Every Facility

To Maximize Energy Savings

No matter what type of building you're looking at, there are areas where specific lighting controls are the perfect solution. Room layout, common operating characteristics and usage patterns can virtually compel a specific control solution.

- Offices
- Conference Rooms
- Restrooms
- Lunch/Break Rooms
- Utility/Storage Rooms
- Exteriors

They all have a 'best fit' energy-efficient lighting control solution that provides maximum energy savings, easier code compliance, and increased convenience and productivity.

For even greater energy savings and increased ROI, WattStopper has adopted the Manual-ON sequence of operation. This means that all single-relay wall switch sensors default to Manual-ON operation, while dual-relay models retain the default mode of Auto-ON to 50%.

Most of the products in this guide qualify for ARRA-funded public works projects.

Control Six is now available online. For a quick solution to your control challenges visit www.wattstopper.com/ControlSix

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Individual Office

Potential Energy Savings: 15-30%

Bring energy savings and sustainability to the desktop

Add our plug load solution to your project

Small Office (12' x 12')

Enclosed, single-occupant office in which primary activities are relatively stationary, like computer work and reading.

The **WPIR** Passive Infrared (PIR) Ceiling Sensor is a cost-effective solution. It provides a bird's eye view of the room without concern for room layout and occupant location. The **CX-105** PIR Ceiling/Wall Sensor offers greater mounting flexibility and should be utilized when the room has suspended lighting fixtures.

Alternatively, our wall switch occupancy sensors combine outstanding performance, appealing aesthetics and unprecedented choice of options. They easily replace standard toggle switches, fit in single gang junction boxes, and require no adjustments in most applications. Use the **PW-100** PIR Wall Switch Sensor to control one lighting load when the sensor's view is unobstructed and the occupant is facing the sensor, as PIR technology requires a clear line of sight to detect motion. If the sensor's view is obstructed or the occupant is NOT facing it, use the **DW-100** Dual Technology Wall Switch Sensor. Dual relay models also exist (**PW-200** and **DW-200**) if the room has two lighting loads to control or to achieve bi-level switching. For rooms with two entrances, multi-way sensors at each doorway permit multi-location lighting control for one or two loads (**DW-103** or **DW-203**).

Ceiling Sensor Options*

WPIR PIR Ceiling Sensor

CX-105 PIR Ceiling/Wall Sensor

*These ceiling sensors are low voltage and require a power pack.

Wall Switch Sensor Options

PW-100 PIR Wall Switch Sensor

DW-100 Dual Technology Wall Switch Sensor

Dual relay options: PW-200 or DW-200

Individual Office

Potential Energy Savings: 15-30%

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Executive Office (18' x 15')

Typically used for high-level meetings, teleconferences, reading and typing, this enclosed private office often has spacious windows.

Ceiling sensors are most effective since they have a bird's eye view of the room and are not effected by furniture layout. The **DT-305** Dual Technology Ceiling Sensor offers a clean, low-profile look to disappear into the décor, and line and low voltage models are available to accommodate any ceiling type. The **DT-205** Dual Technology Ceiling/Wall Sensor provides greater installation versatility. If suspended fixtures are in the room, WattStopper recommends installing a DT-205 on the wall at the same height as the fixture so that pendant fixtures don't block the coverage of the PIR portion of the sensor.

When wall switch sensors are specified, our dual technology models ensure unprecedented sensitivity and coverage. They combine PIR and ultrasonic technologies to easily detect both small (e.g., typing) and large (e.g., walking) movements. Use a **DW-100** to control one lighting load or a **DW-200** to control two loads. For maximum energy savings, these wall switch sensors possess a built-in light level feature, keeping lights off when there is enough natural light in the office. For rooms with two entrances, multi-way sensors at each doorway permit multi-location lighting control for one or two loads (**DW-103** or **DW-203**).

Ceiling Sensor Options*

DT-305 Dual Technology Ceiling Sensor

DT-205 Dual Technology Ceiling/Wall Sensor

*Low voltage ceiling sensors require a power pack.

Wall Switch Sensor Options

DW-100 or DW-103 Dual Technology Wall Switch Sensor

DW-200 or DW-203 Dual Technology Dual Relay Wall Switch Sensor

Conference Room

Potential Energy Savings: up to 40%

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Small Conference Room (12'x12')

Room used for meetings and training, with intermittent and unpredictable occupancy throughout the day.

The **WPIR** Passive Infrared (PIR) Ceiling Sensor is a cost-effective solution. It provides a bird's eye view of the room without concern for room layout and occupant location. The **CX-105**, PIR Ceiling/Wall Sensor offers greater mounting flexibility and should be utilized when the room has suspended lighting fixtures.

Alternatively, our wall switch occupancy sensors combine outstanding performance, appealing aesthetics and unprecedented choice of options. They easily replace standard toggle switches, fit in single gang junction boxes and require no adjustments in most applications. Use the **PW-100** PIR Wall Switch Sensor to control one lighting load when the sensor's view is unobstructed and the occupant is facing the sensor, as PIR technology requires a clear line of sight to detect motion. If the sensor's view is obstructed or the occupant is NOT facing it, use the **DW-100** Dual Technology Wall Switch Sensor. Dual relay models also exist (**PW-200** and **DW-200**) if the room has two lighting loads to control or to achieve bi-level switching. For rooms with two entrances, multi-way sensors at each doorway permit multi-location lighting control for one or two loads (**DW-103** or **DW-203**).

Ceiling Sensor Options*

WPIR PIR Ceiling Sensor

CX-105 PIR Ceiling/Wall Sensor

*These ceiling sensors are low voltage and require a power pack.

Wall Switch Sensor Options

PW-100 PIR
Wall Switch Sensor

DW-100 Dual Technology
Wall Switch Sensor

Dual relay options: PW-200 or DW-200

Conference Room

Potential Energy Savings: up to 40%

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Medium Conference Room (18'x15')

Typically used for meetings and training, it often has two lighting zones: one for general lighting and one for lighting at the front of the room. It may also have two entrances. Whether a ceiling or wall switch sensor is chosen, this application requires dual technology for best performance since there is little motion during meetings.

Ceiling sensors are most effective since they have a bird's eye view of the room and are not affected by furniture layout. The **DT-305** Dual Technology Ceiling Sensor offers a clean, low-profile look to disappear into the décor, while the **DT-205** Dual Technology Ceiling/Wall Sensor provides greater installation versatility. If suspended lighting fixtures are used install a DT-205 on the wall at the same height as the fixtures so the pendants don't block the coverage of the PIR portion of the sensor.

Alternatively, our wall switch occupancy sensors combine outstanding performance, appealing aesthetics and an unprecedented choice of options. The **DW-200** Dual Technology Dual Relay Wall Switch Sensor replaces standard toggle switches, fits in a single gang box and controls two lighting loads. It is also capable of keeping lights off during presentations and can be adjusted to meet your customers' needs. A single relay model (**DW-100**) is available for rooms with only one lighting load. For rooms with two entrances, multi-way sensors at each doorway permit multi-location lighting control for one or two loads (**DW-103** or **DW-203**).

Ceiling Sensor Options*

DT-305 Dual Technology Ceiling Sensor

DT-205 Dual Technology Ceiling/Wall Sensor

*Low voltage ceiling sensors require a power pack.

Wall Switch Sensor Options

DW-100 or DW-103 Dual Technology Wall Switch Sensor

DW-200 or DW-203 Dual Technology Dual Relay Wall Switch Sensor

Restroom

Potential Energy Savings: 50-70%

Individual Restroom (8' x 8')

Restroom without partitions with intermittent usage throughout the day or hotel guest room bathroom.

Ceiling sensors are the preferred control solution since they have a bird's eye view of the space. The **UT-305** Ultrasonic Ceiling Sensor is rising in popularity among architects who strive for clean designs, as it blends in nicely with the ceiling. The **WT-605** Ultrasonic Ceiling Sensor offers an alternative solution with a different form factor.

Use the **PW-100** PIR Wall Switch Sensor to control one lighting load or a fan and lights on the same circuit. The sensor's view must be unobstructed, as PIR technology requires a clear line of sight to detect motion. If the sensor's view is obstructed, use the **UW-100** Ultrasonic Wall Switch Sensor. Dual relay models are available (**PW-200** and **UW-200**) if the room has two separate loads to control, such as lighting and exhaust fan.

For hotel guest bathrooms, use a **PW-103N** PIR Wall Switch Sensor with LED nightlight. The nightlight will increase guest comfort, help preserve night vision and contribute to energy savings.

Ceiling Sensor Options*

UT-305 Ultrasonic Ceiling Sensor

WT-605 Ultrasonic Ceiling Sensor

*Low voltage ceiling sensors require a power pack.

Wall Switch Sensor Options

PW-100 PIR Wall Switch Sensor

PW-103N PIR Multi-way Wall Switch Sensor with Nightlight

UW-100 Ultrasonic Wall Switch Sensor

Dual relay options: PW-200 or UW-200

Restroom

Potential Energy Savings: 50-70%

Two-Stall Restroom (15' x 10')*

Restroom containing one or two stalls with intermittent usage throughout the day.

Whether a ceiling or wall switch sensor is selected, this application requires ultrasonic sensing technology since the detection extends beyond most obstacles. Ceiling sensors are the preferred control solution since they have a bird's eye view of the space. For customers who strive for clean designs, the **UT-305-1** Ultrasonic Ceiling Sensor blends in nicely with the ceiling. A **WT-605** Ultrasonic Ceiling Sensor may also be considered.

As an alternative, control one lighting load and an exhaust fan with a **UW-200** Ultrasonic Dual Relay Wall Switch Sensor to replace a standard toggle switch. If both fan and lights are on the same the circuit, use a single relay model, **UW-100.**

* WattStopper has occupancy sensor solutions to accommodate rooms larger than 15' x 10.' Please consult us for details.

Ceiling Sensor Options**

UT-305-1 Ultrasonic Ceiling Sensor

WT-605 Ultrasonic Ceiling Sensor

**These ceiling sensors are low voltage and require a power pack.

Wall Switch Sensor Options

UW-100 Ultrasonic Wall Switch Sensor

UW-200 Ultrasonic Dual Relay Wall Switch Sensor

Lunch/Break Room (15'x12')

Potential Energy Savings: up to 40%

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Common activities by employees in this room are eating, talking on the phone, and reading a newspaper or a book. With larger controllable loads and intermittent occupancy patterns, lunch and break rooms offer a great opportunity to eliminate unnecessary lighting.

Ceiling sensors have the advantage of having a bird's eye view of the room and are the most reliable control solutions. The **CI-305** PIR Ceiling Sensor offers a clean, low-profile look to disappear into the decor, and line and low voltage models are available to accommodate any ceiling type. The **CX-105** PIR Ceiling/Wall Sensor provides greater mounting flexibility and should be used when suspended fixtures are in the room.

In instances where ceiling sensors cannot be installed, use one of our wall switch occupancy sensors. The **PW-100** PIR model easily detects motion when there is a clear line of sight to the room's occupants. If the sensor's view is obstructed, we suggest the **DW-100** Dual Technology Wall Switch Sensor. Dual relay models also exist (**PW-200** and **DW-200**) if the room has two lighting loads to control or to achieve bi-level switching. For rooms with two entrances, multi-way sensors at each doorway permit multi-location lighting control for one or two loads (**DW-103** or **DW-203**).

Ceiling Sensor Options*

CI-305 PIR
Ceiling Sensor

CX-105 PIR
Ceiling/Wall Sensor

*These ceiling sensors are low voltage and require a power pack.

Wall Switch Sensor Options

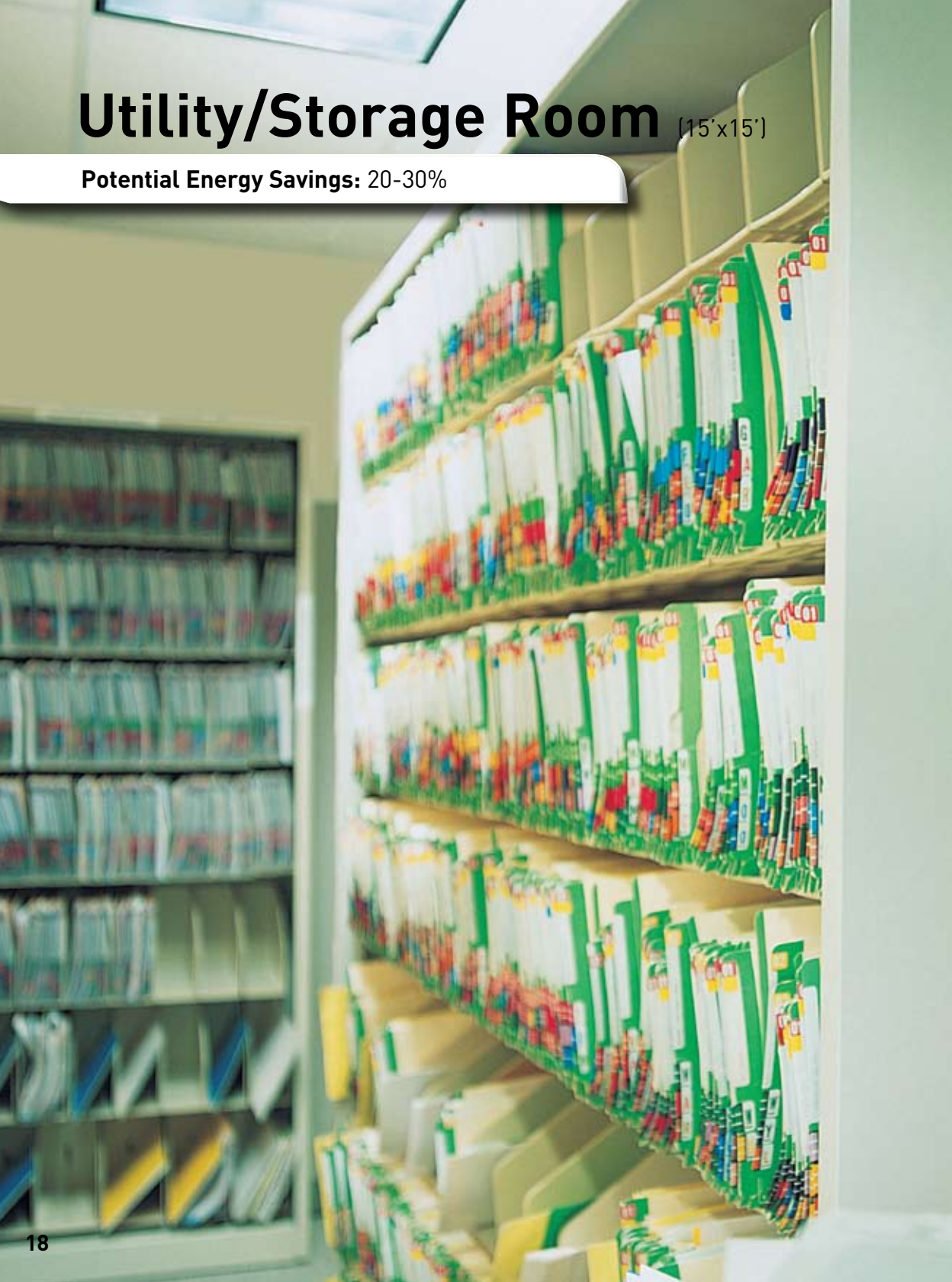
PW-100 or PW-103
PIR Wall Switch Sensor

DW-100 or DW-103
Dual Technology
Wall Switch Sensor

Dual relay options: PW-200 or DW-200

Utility/Storage Room (15'x15')

Potential Energy Savings: 20-30%



Utility and storage rooms are typically used only for brief periods throughout the day.

Replacing a toggle switch with a **TS-400** Digital Time Switch provides convenient, pushbutton control to turn lights on for the brief intervals when lighting is needed. After the preset time, the switch automatically turns lights off.

If the customer prefers turning lights on and off automatically, use a **UW-100** Ultrasonic Wall Switch Sensor. Its high sensitivity to small and large movements, appealing aesthetics and variety of features makes it a convenient and reliable option.

Time Switch Option

TS-400 Digital Time Switch

Wall Switch Option

UW-100 Ultrasonic Wall Switch Sensor

Exterior Lighting

Potential Energy Savings: 20-40%

Both energy codes and security needs compel control of exterior lights. The **LP "Peanut"** Lighting Control Panels, via scheduling or astronomic control, offer lighting when you need it and automated shutoff when you don't. Simple to operate and to install, LP panels offer convenient preprogrammed control scenarios as well as options for multi-phase load control.

Product Options

LP "Peanut"
Lighting Control Panels

Catalog #	Product Description	Operation Mode	Voltage	Coverage
PIR Wall Switch Sensors				
 **PW-100*** **PW-100-347** **PW-100-24***	PIR Wall Switch Sensor	Manual-ON/Auto-OFF or Auto-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz 347 VAC; 50/60 Hz 18-24 VDC, 24 VAC	Major Motion: 35' x 30' Minor Motion: 20' x 15'
 **PW-103-N**	PIR Multi-way Wall Switch Sensor with Nightlight	Manual-ON/Auto-OFF or Auto-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz	Major Motion: 35' x 30' Minor Motion: 20' x 15'
 **PW-200**	PIR Dual Relay Wall Switch Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz	Major Motion: 35' x 30' Minor Motion: 20' x 15'
Ultrasonic Wall Switch Sensors				
 **UW-100** **UW-100-347** **UW-100-24**	Ultrasonic Wall Switch Sensor	Manual-ON/Auto-OFF or Auto-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz 347 VAC; 50/60 Hz 18-24 VDC, 24 VAC	Major Motion: 20' x 20' Minor Motion: 15' x 15'
 **UW-200**	Ultrasonic Dual Relay Wall Switch Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz	Major Motion: 20' x 20' Minor Motion: 15' x 15'
Dual Technology Wall Switch Sensors				
 **DW-100*** **DW-100-347** **DW-100-24***	Dual Technology Wall Switch Sensor	Manual-ON/Auto-OFF or Auto-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz 347 VAC; 50/60 Hz 18-24 VDC, 24 VAC	Major Motion: 35' x 30' Minor Motion: 20' x 15'
 **DW-103**	Dual Technology Multi-way Wall Switch Sensor	Manual-ON/Auto-OFF or Auto-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz	Major Motion: 35' x 30' Minor Motion: 20' x 15'
 **DW-200***	Dual Technology Dual Relay Wall Switch Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz	Major Motion: 35' x 30' Minor Motion: 20' x 15'
 **DW-203**	Dual Technology Multi-way Dual Relay Wall Switch Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	120/230/277 VAC; 50/60 Hz	Major Motion: 35' x 30' Minor Motion: 20' x 15'
Time Switch				
 **TS -400*** **TS-400-24***	Digital Time Switch	Manual-ON/Auto-OFF	120/230/277 VAC; 50/60 Hz 24 VDC	N/A
PIR Ceiling Sensors (these ceiling sensors are low voltage and require a power pack)				
 **WPIR**	PIR Ceiling Sensor	Auto-ON/Auto-OFF	24 VDC	300 ft²
 **CX-100 Series***	PIR Ceiling/Wall Sensor	Auto-ON/Auto-OFF	24 VDC	up to 2000 ft²
 **CI-300 Series*** **CI-355 Series***	PIR Ceiling Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	24 VDC 120/230/277/347 VAC; 50/60 Hz	360º, up to 1200 ft²
Ultrasonic Ceiling Sensors (these ceiling sensors are low voltage and require a power pack)				
 **WT Series**	Ultrasonic Ceiling Sensor	Auto-ON/Auto-OFF	24 VDC	360º, up to 2200 ft²
 **UT-300 Series*** **UT-355 Series***	Ultrasonic Ceiling Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	24 VDC 120/230/277/347 VAC; 50/60 Hz	up to 2000 ft²
Dual Technology Ceiling Sensors (these ceiling sensors are low voltage and require a power pack)				
 **DT-200 Series**	Dual Technology Ceiling/ Wall Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	24 VDC	2000 ft²
 **DT-300 Series*** **DT-355 Series***	Dual Technology Ceiling Sensor	Auto-ON/Auto-OFF or Manual-ON/Auto-OFF**	24 VDC 120/230/277/347 VAC; 50/60 Hz	up to 1000 ft²
Lighting Control Panels				
 **LP Lighting Control Panels***	8 Relay Lighting Control Panel	N/A	115/277 VAC 115/347 VAC	N/A

Office		Conf. Room		Restroom		Lunch/ Break Room	Utility/ Storage Room	Exterior Lighting
Small	Executive	Small	Medium	Individual	Two-Stall			
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Color Options

- **Wall Switch Sensors** Choice of five colors with uniform color-matched lens and device
- Plates not included
- **Ceiling Sensors** Available in White

Notes:

***ARRA-compliant models available. See **www.wattstopper.com/ARRA/** for more information.

****Single-relay models default is manual-ON operation. Dual-relay models default is auto-ON of first relay, manual-ON of second relay. Mode is adjustable.

Use WattStopper power packs for low voltage products.

Specify color when ordering wall switches by adding a -W for White, -LA for Light Almond, -I for Ivory, -G for Grey and -B for Black. For the TS-400 specify Light Almond by adding a -A.

WattStopper teams innovative technologies and service to provide the energy-efficient lighting control solution you need for every application.

* **ENERGY CODE COMPLIANCE**
  We help you comply with energy codes, such as ASHRAE 90.1, California's Title 24 and IECC.
* **TAX INCENTIVES**
  Using occupancy sensors may qualify your project for valuable tax incentives under EPAct 2005.
* **LEED CERTIFICATION**
  The use of lighting controls, such as occupancy sensors, is key to optimizing a building's energy performance under LEED and other certification programs.

WattStopper®

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