WN-100

Motion Sensor
Nightlight Switch

SPECIFICATIONS

WN-100-120

Voltage	120VAC, 60Hz
Power Consumption	0.92W maximum
Load Requirements	0-500W Incandescent, Fluorescent and Compact Fluorescent
Horsepower Rating	1/6 HP

WN-100-277

Voltage	277VAC, 60Hz
Power Consumption	0.92W maximum
Load Requirements	800W Fluorescent

General

Time Delay Adjustment	Fixed 15 minute, 30 minute, 1 hour, 2 hour
Operating Temperature Range	32-131°F (0-55°C)
Operating Humidity Range	95% RH, non-condensing

WattStopper

L1 legrand®

US Patent Number:
4,787,722

UNIT DESCRIPTION

The Watt Stopper WN-100 is a motion sensing wall switch and nightlight that controls lighting based on occupancy. The sensor uses passive infrared (PIR) technology to sense human motion in a controlled space. It must have a clear view of occupants in the space in order to detect occupancy. Obstructions such as furniture blocking the sensor's lens may prevent occupancy detection.

Note: Windows, glass shower doors, etc. will obstruct the WN-100's view and may prevent detection.

Through the WN-100's mode selection, the user can specify ON functions and time delay (see Sensor Adjustment & Programming section).

OPERATION

ON-Mode Functions (Manual-ON & Automatic-ON):

Manual-ON:
When the WN-100 is set to Manual-ON, users must turn lights on by pushing the ON/OFF button. Lights will not turn on automatically with occupancy in the Manual-ON mode. However, for a grace period of 30 seconds after shut-off, the WN-100 will turn the load back on automatically when motion is detected.

Automatic-ON:
In Automatic-ON mode, the WN-100 automatically turns lights on when a designated space becomes occupied.

Note: In both Manual-ON and Automatic-ON, the ON/OFF button turns lights off. The ON/OFF button must be pressed again to turn lights back on.

Time Delay:
The WN-100 automatically turns lights off after a space becomes vacant and a preset time interval, or time delay, elapses. If lights are left on and no motion is detected for the time delay selected (factory default = one hour), the WN-100 automatically turns lights off.
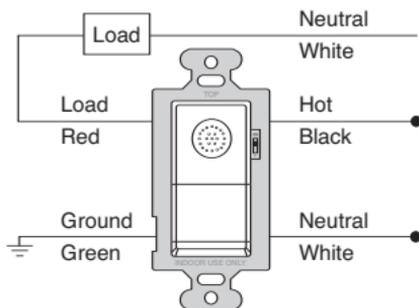
Nightlight:
In the factory default mode, the nightlight remains on whenever the load is off, regardless of occupancy.

The nightlight can be disabled from constant illumination (see "End User Options" in the Sensor Adjustment & Programming section). However, when motion is detected by the WN-100 while in Manual-ON mode, the nightlight will automatically turn on and remain on until 90 seconds after the room becomes vacant again. In this situation, nightlighting is provided only when the room is in use.

If the nightlight remains disabled for 48 hours, it will automatically switch to the default (enabled) mode.
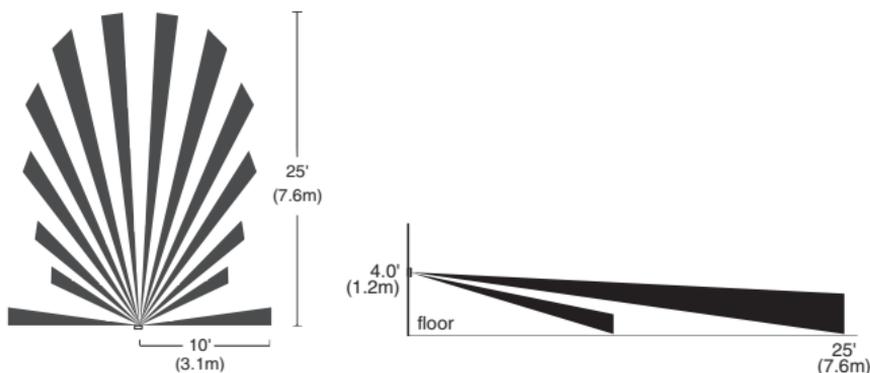
WIRING

Single-sensor wiring

COVERAGE PATTERNS

The WN-100 has a coverage range of 180 degrees and a maximum coverage area of 300 sq. ft. To maintain its coverage capacity and optimally detect motion, the WN-100 must have a clear and unobstructed view.
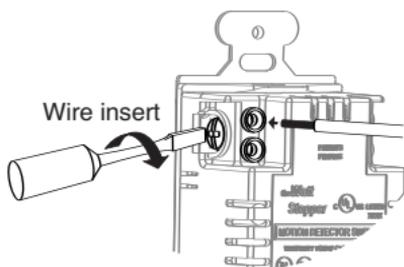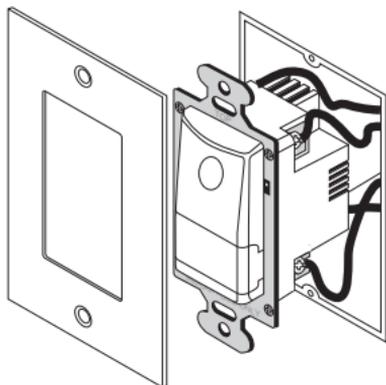
INSTALLATION

Caution: A neutral connection is required for sensor operation.
A qualified electrician should be consulted regarding the availability of a neutral in your particular installation.

1. Make sure that power has been turned off at the circuit breaker.

2. Connect the existing wires to the sensor terminals.

   • Hot or Black to Line;
     Load or Red to Load;
     Ground or Green to Ground;
     Neutral or White to Neutral.

   • Do not allow any bare wire to show above the connector.

3. Attach the sensor to the wall box by inserting screws into the two wide holes on the top and bottom of the attached metal bracket. Line them up with the holes in the wall box and tighten.

4. Turn on the circuit breaker. Push the ON/OFF button and the lights will turn on.

Wire insert

#12 – #14 AWG

Strip Gauge

Cu Wire Only

Optional wire wrap

Insert or wrap wire as shown. Tighten screw in the clockwise direction.
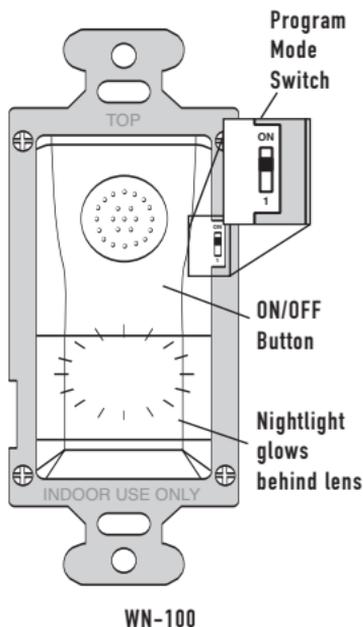
Call 800.879.8585 or 972.578.1699 for Technical Support

SENSOR ADJUSTMENT & PROGRAMMING

The WN-100 is designed for installation in hotel rooms and other semi-public spaces. Custom setup features are intended for facility or installing personnel only. Therefore, the Program Mode switch is located behind the cover plate. To enable the Programming mode, the single DIP switch must be in the ON (Program) position.

Programming the WN-100:

1. Slide the Program Mode switch (normally covered by the light switch cover plate) to the ON (Program) position. The nightlight will flash, counting out the selected operating mode (one flash then a pause = mode 1, two flashes then a pause = mode 2, and so on)

2. Press the ON/OFF button to advance through the modes. When you reach the desired mode, slide the Program Mode switch to the DOWN (End User) position.

3. When the Program Mode switch is returned to the DOWN (End User) position, the WN-100 will operate in Test Mode for five (5) minutes. During this period, the time delay will be 15 seconds and the WN-100 will operate as "Automatic-ON". After five (5) minutes, the WN-100 will use the parameters of the selected mode.

Program Mode Switch

ON/OFF Button

Nightlight glows behind lens

WN-100

Note: Do not leave the Program Mode Switch in the UP (Program) position. The WN-100 will only operate properly in the DOWN (End User) position.

Mode Selections:

Flashes	Time Delay	Mode	
✧	1 hour *	Manual-On	* Factory default
✧✧	2 hours	Manual-On	
✧✧✧	30 minutes	Manual-On	
✧✧✧✧	15 minutes	Manual-On	
✧✧✧✧✧	15 minutes	Automatic-On	

End User Options:

To disable the nightlight, press and hold the ON/OFF button. After one-half second, the nightlight will display the Enabled/Disabled status (lit = nightlight enabled, unlit = nightlight disabled). To change the status, continue to press and hold the ON/OFF button. After five (5) seconds, the WN-100 changes state (for more details, see "Nightlight" in the Operation section).

TROUBLESHOOTING

To test the WN-100:

Initiate the WN-100 Test Mode by sliding the Program Mode Switch up to the ON (Program) position then back to the DOWN (End User) position.

When the switch is returned to the DOWN (End User) position, there will be a five-minute test period. During this period, the time delay will be 15 seconds, and the WN-100 will operate as "Automatic-ON".

Move within the coverage zone of the WN-100 to trigger detection, then move out of the coverage zone (see Coverage Patterns section). The load should turn off within 15 seconds and the nightlight should subsequently turn on. Repeat as necessary to ensure that the desired coverage areas are within detection range.

Lights will not turn on (nightlight is illuminated):

1. Press ON/OFF button, lights should turn on. If not, check sensor wire connections to the load.
2. Check the lamp.

Lights will not turn on (nightlight is NOT illuminated):

1. Check the sensor wire connections.
2. Make certain that the circuit breaker is on and functioning.
3. Call 800.879.8585 for technical support.

Lights turn OFF but nightlight does not turn ON:

1. Make sure the nightlight is not in Disable mode.

ORDERING INFORMATION

WN-100-120	Motion Sensor Nightlight Switch 120VAC, 60Hz
WN-100-277	Motion Sensor Nightlight Switch 277VAC, 60Hz
ASP-211*	Cover plate for single-gang box
ASP-422	Blank cover plate for double-gang box
ASP-432	Cover plate for double-gang box with switch option

When ordering, add **-W** for white, **-I** for ivory for **-A** for light almond to the catalog number.
* One ASP-211 is included with each sensor.

WARRANTY INFORMATION

Watt Stopper/Legrand warranties its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of Watt Stopper/Legrand for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.