The WIR-10-RR7-D can be installed in any standard single gang box. It may be installed in the same manner as an ordinary Wall Switch.

- Wire the WIR-10-RR7-D as described in the wiring section.
- Mount the WIR-10-RR7-D in the junction box.

### Wiring Diagram 1

1. Make sure power is turned off at the branch circuit breaker.
2. Wire units as shown in wiring diagrams per applicable voltage requirements.
3. Mount unit to Wall Box.
4. Turn power back on at the branch circuit breaker and wait 2 minutes for the unit to stabilize.
5. Make necessary adjustments. (See Checkout and Adjustments section)
6. Install Wall Switch plate.

#### DIP Switch Settings

<table>
<thead>
<tr>
<th>DIP Switch Legend</th>
<th>Off</th>
<th>On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual ON/Auto OFF</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Auto</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>HVAC</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>HVAC</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Operating Environment

- Temperature: 32° F – 104° F (0° C – 40° C)
- Relative Humidity: 20% to 90% non-condensing

### Coverage

- Major Motion - 300 sq. ft.
- Minor Motion - 300 sq. ft.
- Maximum coverage area may vary somewhat according to room shape and the presence of obstacles.

### Installation

- Read all instructions on both sides of this sheet first.
- Plan all component locations carefully.
- For indoor use only.

### Specifications

- Technology: Passive Infrared PIR
  - Electrical Ratings:
    - Input: 24VAC ±10% Maximum current needed is 25mA per sensor.
    - 5 VA max for each GE RR7/9 relay.
    - 8.5 VA max for each Sierra 1070-B relay.
  - Output: Half-wave rectified 24VAC for 30ms pulse for driving up to 4 GE RR7/9 type relays or up to 2 Sierra 1070-B type relays.
- Isolated Form C Relay.
- Isolated Form C Relay Ratings: 1A 30VDC/VAC
- Time Delays: Self-Adjusting, 15 seconds/test (10 min, 15, 30 minutes)
- Operating Environment:
  - Temperature: 32° F – 104° F (0° C – 40° C)
  - Relative Humidity: 20% to 90% non-condensing

### Description

- The WIR-10-RR7-D Occupancy Sensing Wall Switch is a Passive Infrared PIR motion sensing lighting control and conventional Wall Switch all-in-one, used for energy savings and convenience.
- The sensor's segmented lens divides the field of view into sensor zones, and detects the changes in temperature that are created when a person, or part of a person as small as a hand, passes into or out of a sensor zone.
- The WIR-10-RR7-D allows the control of four GE RR7/9 relays or two Sierra 1070-B relays.
- The sensor may be interfaced to an energy management system that accepts either a normally open or normally closed dry contact via the sensor's Form C relay.
- To enhance energy savings set the unit to manual ON operation.
- In Automatic ON Mode, the lights turn ON automatically when a person enters the room. In Manual ON Mode, the lights are turned ON by pressing the pushbutton. In either mode, the lights stay ON as long as the sensor detects motion in the room. When the room is vacated, the lights turn OFF automatically after a preset Time Delay interval.
- The sensor includes self-adaptive technology that continually adjusts to conditions by adjusting sensitivity and Time Delay in real-time. By adjusting sensitivity and Time Delay automatically, the sensor is maximizing the potential energy savings that are available in the particular application.
- The Daylighting feature prevents lights from turning ON, when the room is adequately illuminated by natural light.
- Walk-Through feature maximizes energy savings by not leaving the lights ON after a momentary occupancy. The sensor will switch the lights OFF when it detects a person entering the area. If the sensor does not continue to detect motion 20 seconds following the initial activation, it will automatically go to a shorter 2 minute Time Delay.
- Tracking Mode allows the load connected to the Form C relay to follow the state of the sensor's blue wire.
- Walk-Through feature maximizes energy savings by not leaving the lights ON after a momentary occupancy. The sensor will switch the lights OFF when it detects a person entering the area. If the sensor does not continue to detect motion 20 seconds following the initial activation, it will automatically go to a shorter 2 minute Time Delay.
- Tracking Mode allows the load connected to the Form C relay to follow the state of the sensor's blue wire.
- HVAC Mode allows the load connected to the Form C relay to remain ON when the lights are turned OFF manually. Applications may include keeping the room at a desired temperature while giving a presentation and the lights are OFF.

### Wiring

- Use only approved relays.
- Input: Half-wave rectified 24VAC for 300ms pulse for 7 VA max for each GE RR7/9 relay.
- Input: 1 VA max for each sensor.
- Input: 8.5 VA max for each Sierra 1070-B relay.
- Output: Isolated Form C Relay.
- Isolated Form C Relay Ratings: 1A 30VDC/VAC
- Operating Modes:
  - Automatic ON/Automatic OFF
  - Manual ON/Automatic OFF
- Time Delays:
  - Self-Adjusting, 15 seconds/test (10 min, 15, 30 minutes)
- Operating Environment:
  - Temperature: 32° F – 104° F (0° C – 40° C)
  - Relative Humidity: 20% to 90% non-condensing

### Models

<table>
<thead>
<tr>
<th>Model #</th>
<th>Wiring Diagram 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIR-10-RR7-D-W</td>
<td><img src="image" alt="WIR-10-RR7-D-W Wiring Diagram" /></td>
</tr>
<tr>
<td>WIR-10-RR7-D-V</td>
<td><img src="image" alt="WIR-10-RR7-D-V Wiring Diagram" /></td>
</tr>
<tr>
<td>WIR-10-RR7-D-A</td>
<td><img src="image" alt="WIR-10-RR7-D-A Wiring Diagram" /></td>
</tr>
<tr>
<td>WIR-10-RR7-D-G</td>
<td><img src="image" alt="WIR-10-RR7-D-G Wiring Diagram" /></td>
</tr>
<tr>
<td>WIR-10-RR7-D-B</td>
<td><img src="image" alt="WIR-10-RR7-D-B Wiring Diagram" /></td>
</tr>
</tbody>
</table>

### Notice

- For indoor use only.

### General Information

- For use with RR7/RR9 type relays.
- For indoor use only.
- For use with RR7/RR9 type relays.
- For use with RR7/RR9 type relays.
- For indoor use only.

### Location

- When installing the WIR-10-RR7-D in a new junction box, choose the switch location carefully to provide optimum coverage of the occupied area. When replacing an existing Wall Switch, bear in mind that there must be a clear Line-of-Sight between the sensor and the area to be covered. Avoid pointing the WIR-10-RR7-D directly into the hallway where it may detect passers-by.
Checkout and Adjustment

Adjustments should be made with the HVAC system on so that the installer will be able to detect the effect of airflow on the operation of the WIR-10-RR7-D. Use only insulated tools to make adjustments. Immediately after applying power to the lighting circuit, wait approximately two minutes for the switch to power up and stabilize.

Self-Adjust

The sensor is shipped in self-adjust mode. This applies to the Time Delay and PIR sensitivity. In preparation for the installer test, the Time Delay is set to 10 seconds, after the sensor is installed, powered on and has stabilized, the unit will time-out 15 seconds after the last motion detected. Coverage and sensitivity can be confirmed by watching the Red (PIR) sensor LED on the front of the sensor, while moving around the room.

1. Walk around the room and monitor LEDs.
2. Stand in different parts of the room and wave your hands. LED should only turn on for one second with each motion. (If LED does not turn on, go to Installer Adjustments - Sensitivity Adjustment Section)
3. Stand still three to four feet away from sensor for five seconds. LED should not turn on. (If LED turns on, go to Installer Adjustments - Sensitivity Adjustment Section)
4. Work outside the room and wait 15 seconds for the lights to turn off. (If lights do not turn off, go to Adjust PIR Sensitivity Section)
5. Re-enter the room to activate sensor. If lights do not turn on go to Troubleshooting Section.
6. At this point you can exit the room and let the sensor Time-out. When the sensor times-out, the unit will turn off and can be put into manual override mode.

Note: To place into Test Mode, toggle DIP Switch 8 out of its current position, wait 3 seconds, and then back into its original position.

Troubleshooting

**Possible Causes**

- Lights will not turn ON automatically.
- Daylight Feature Enabled
- Power interruption
- Daylight Feature Disabled
- PIR activated by light source other than occupant

**Suggestions**

- Press the Pushbutton or change Action Mode to Auto.
- If all lights are required to turn ON, adjust daylight potentiometer.
- Press the Pushbutton to turn the lights back ON.
- If lights do not turn off after 30 minutes following a power interruption, check incoming voltage and/or wiring.
- Check Daylight potentiometer.
- Daylight Sensors
- Move DIP Switch 5 up.
- Call Technical Services

**Limited Warranty**

This product is warranted to be free from defects in material and workmanship and shall conform to and perform in accordance with Seller’s written specifications for a period of five (5) years from the date of shipment for all occupancy sensors. We guarantee the performance of our product to specifications or your money back. This warranty will be limited to the replacement of the product or any part thereof at the Seller’s discretion, at any such goods found to be defective, upon their authorized return to Seller. This limited warranty does not apply if the products have been damaged by accident, misuse, abuse, alteration, accident, installation, or other act which is not attributable to the Seller or to assume for the Seller any other liability in connection with any of its products except in writing and signed by the Seller. The Seller makes no representation that the goods conform to any present or future federal, state or local regulation or ordinance. Compliance is the Buyer’s responsibility. The use of the Seller’s goods should be in accordance with the provision of the National Electrical Code, UL and/or other industry or military standards that are pertinent to the particular end use. Installation or use not in accordance with these codes and standards could be hazardous.