P/N 9850-000140-01

**General Information**
- Read all instructions on both sides of this sheet first.
- Plan all component locations carefully.
- Install in accordance with all local codes.
- For indoor use only.

**Specifications**

**Technology:** Passive Infrared (PIR)

**Power Requirements:**
- 10-30 VDC from Greengate Switchpacks or Greengate system. Maximum current needed is 25mA per sensor.

**Open collector output to switch up to ten Greengate Switchpacks.** DC isolation is provided from I/O relay (R model) isolated from DC relay ratings: 1-3.3 VDC/24VAC.

**Time Delay:** Self-Adjusting, 15 seconds (10 min Auto), or Selectable 6, 15, 30 minutes.

**Coverage:** 1200 sq. ft.

**Light Level Sensing:** 0 to 300 foot candles (R model).

**Operating Environment:**
- Temperature: 32° F – 104° F (0° C – 40° C)
- Relative Humidity: up to 95% non-condensing

**Housing:**
- Medium impact injection molded housing
- Polycarbonate resin complies with UL 94V0
- Medium impact in-housing
- Relative Humidity: up to 90% non-condensing
- Temperature: 32° F – 104° F (0° C – 40° C)

**Relative Humidity:**
- up to 90%

**Temperature:**
- 32° F – 104° F (0° C – 40° C)

**Coverage Patterns:**
- Minor Motion, IR
- Major Motion, IR

**Installation Instructions**

**Location Diagram**

- The maximum coverage area may vary somewhat according to room shape and the presence of obstacles. Follow the coverage diagram concerning major and minor motion coverage. The sensor must have a clear view of the area to be controlled. The sensor will not “see” through glass, and mounting height shall not exceed 12 feet. Optimum mounting height is 10 feet.
- Mount the sensor so the device faces the open portion of the room and is facing a nearby wall, door, window, or other obstructing object. Avoid painting into hallways. To prevent false activation, the sensor should be mounted away from the air supply duct a minimum of 4 to 6 feet. Mounting at floor height is most effective. For typical placement refer to Location Diagram.

**Wiring**

- **CAUTION:** Before installing or performing any service on a Greengate system, the power MUST be turned OFF at the branch circuit breaker. According to NEC 240-83(d), if the branch circuit breaker is used as the main switch for a fluorescent lighting circuit, the circuit breaker should be marked “SWD.” All installations should be in compliance with the National Electric Code and all state and local codes.

**NOTE:** RECOMMEND COMPACT FLUORESCENT LAMPS. The life of some compact fluorescent lamps (CFL) is shortened by frequent automatic or manual switching. Check with CFL and ballast manufacturer to determine the effects of cycling.

1. Make sure power is turned OFF at the branch circuit breaker.
2. Wire units as shown in wiring diagram per applicable voltage requirements. (Use field-wire connectors for all connections: COP ALU, UNLINED WIRE LEADS)
3. Mount unit to wall, ceiling, junction box, or round fixture with raceway.
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)

**Notes:**
- For Use with Greengate Switchpacks & Systems Only.
- Do not run any Greengate Low Voltage Wiring in the same conduit as power conductors.
- Plan all component locations carefully.
- Install in accordance with all local codes.
- For indoor use only.

**Housing:**
- Medium impact injection molded housing
- Polycarbonate resin complies with UL 94V0
- Medium impact housing
- Relative Humidity: up to 90%
- Temperature: 32° F – 104° F (0° C – 40° C)

**Relative Humidity:**
- up to 90%

**Temperature:**
- 32° F – 104° F (0° C – 40° C)

**Coverage Patterns:**
- Minor Motion, IR
- Major Motion, IR
One Sensor, Multiple Switchpacks

Field-of-view outside the space
1. Adjust PIR sensitivity to 50% by moving DIP Switch 5 up.

Daylight Adjustments
If this feature is not needed, leave the light level at maximum (fully CW).
The daylight feature (-R model) only prevents the lights from turning ON when there is adequate illumination by natural light. If there is enough light in the room regardless of occupancy, the sensor will hold the lights OFF. If there is not enough light in the room, the sensor will allow the lights to turn ON when occupied.

Full and Half Logic Modes (See DIP Switch legend):
- In both Full and Half Logic modes, lights connected to the yellow control lead will not turn ON upon occupancy activation, should the ambient light level exceed the preset foot-candle level.
- After activation:
  - Full Logic Mode – should the ambient light level exceed the preset foot-candle level, the lights connected to the yellow control lead will turn OFF. The lights will remain OFF, until the ambient light level falls below the set point.
  - Half Logic Mode – the output state of the yellow control lead will not change with ambient light changes, after occupancy activation. If the amount of natural light available rises above the setpoint, the daylight sensor will not turn the lights OFF while occupancy is being detected.

Note: Set the light level when the ambient light is at the level where no artificial light is needed. In order for this feature to function, the yellow control lead must be wired.
1. With the load ON, put the sensor into Test Mode. To place into Test Mode, toggle DIP Switch 10 out of its current position, wait 3 seconds and then back in to its original position.
2. Set DIP Switch 10 to Full or Half Logic Mode.
3. Set the light level to minimum (fully CW).
4. Leave the room and let the sensor time-out so lights are OFF. Enter the space and lights should remain OFF.
5. Make sure not to block the sensor from the daylight source and adjust the light level potentiometer CW in small increments until the lights are OFF. (Pause 5 seconds between each adjustment)
6. Once the lights are ON, the load connected to the sensor to the yellow control lead will not turn OFF if the lights are not above the current illumination.

Time Delay Adjustments
People who remain very still for long periods of time may need a longer time delay than the default setting of 10 minutes. As long as Auto is enabled, the sensor will respond to each pair of false OFFs with no normal OFF in between, by alternately making slight adjustments to either time delay (by 2 minute increments) or sensitivity, so there be no need for manual adjustment. If manual adjustment is desired, refer to Time Delay settings in DIP Switch legend.
Reset sensor time delay by factory settings by moving DIP Switches 1 and 2 down. (If DIP Switches 1 and 2 are already down, toggle DIP Switch 1 out of its current position, wait 3 seconds, and then back to its original position)

Automatic Mode
In Automatic ON Mode, the lights turn ON when a person enters the room. If optional momentary low voltage switches are used along with Automatic ON Mode, with the load ON the turn the load OFF. When the load is turned OFF manually, as long as the sensor continues to detect occupancy the loads stay OFF. After the time delay expires, the lights stay OFF and the sensor goes back to Automatic ON Mode. For wiring information for the optional momentary low voltage switches, please see the wiring section of the installation instructions.

Manual Mode
In Manual ON Mode, the lights turn ON when a person enters the room. If optional momentary low voltage switches are used along with Automatic ON Mode, activating the switches/ON the load ON turns the load OFF. When the load is turned OFF manually, as long as the sensor continues to detect occupancy the loads stay OFF. After the time delay expires, the lights stay OFF and the sensor goes back to Automatic ON Mode. For wiring information for the optional momentary low voltage switches, please see the wiring section of the installation instructions.

Lighting Sweep Option
If selected, this DIP Switch option forces an initial 60 second delay upon “power-up” to prevent false activation in buildings with computer control systems.
1. Move DIP Switch 8 UP.

Override
The Override setting allows the lights to remain ON in the unlikely event of sensor failure.
1. Move DIP Switch 8 UP.

If lights will still not turn ON, call Tech Support at 1-800-553-3879

Troubleshooting

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<tr>
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<th>Possible Causes</th>
<th>Suggestions</th>
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<td>Wall switch OFF</td>
<td>If the low voltage switch is used, lights may have been turned off manually.</td>
<td>Press low voltage switch</td>
</tr>
<tr>
<td>Daylighting Feature Enabled</td>
<td>If all lights are required to turn ON check DIP Switch 10 and/or daylight potentializer</td>
<td></td>
</tr>
<tr>
<td>Power interruption</td>
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Sensor installed close to an air vent
Sensors should be installed 4-6 feet away from an air vent and out of heat air flow

Sensor installed close to indirect lighting
Sensors should be mounted away from indirect lighting

Warranties and Limitation of Liability

Please refer to www.eatoncontrol.com under the Legal section for our terms and conditions.