**General Information**
- Read all instructions on both sides of this sheet first.
- Plan all component locations carefully.
- For indoor use only.
- Install in accordance with ALL local codes.
- For use with GE switchpacks and systems only. For use with other systems contact technical support.
- Do not run Low Voltage wiring in the same conduit as power conductors.

**Specifications**
- Technology: Passive Infrared (PIR) and Ultrasonic (US)

**Electrical Ratings**
- Input: 10-30VDC from GE Switchpack or GE System. (Select the Dual Mode DIP switch option to run these two technologies together.)
- Output: 1.42V x 3.75W x 6.5”D x 36.1mm x 95.3mm x 165.1mm
- LED Indicators: Red (LED indicates PIR detection), Green (LED indicates US detection)

**Operating Environment**
- Temperature: 32° F – 104° F (0° C – 40° C)
- Relative Humidity: up to 90% non-condensing
- For indoor use only

**Install in accordance with ALL local codes.**
- Do not run Low Voltage wiring in the same conduit as power conductors.
- For use with other systems contact technical support.
- CAUTION: Before installing or performing any service on a GE system, the power MUST be turned off at the branch circuit breaker. According to NEC 240-83(b), 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 REGARDING COMPACT FLUORESCENT LAMPS: The life of some compact fluorescent lamps (CFLs) 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. According to NEC 240-83(b), 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.
- 2. Wire units as shown in wiring diagrams per applicable voltage requirements. (Use twist-on wire connectors for all connections)
- 3. Mount unit to ceiling.
- 4. Turn power back ON at the branch circuit breaker and wait 2 minutes for the unit to stabilize.
- 5. If needed make necessary adjustments. (See Checkout and Adjustments section)

**Location**
The maximum coverage areas may vary somewhat according to the room shape and the presence of obstacles. Follow the coverage diagram concerning major and minor motion coverage. Decrease total coverage area by 15% for “soft” rooms (for example, heavy draperies or heavy carpeting). The sensor must have a clear view of the area to be controlled. The sensor will not “see” through glass. Mounting height should not exceed 12 feet. Optimum mounting height is 10 feet. Avoid pointing outside of space. To prevent false activation, the sensor should be mounted away from the air supply duct a minimum of 4 to 6 feet. For typical placement see Location Diagrams.

**Coverage**
- CDT-05-180-R
- CDT-20-360-R

**Wiring**
**CAUTION:** Before installing or performing any service on a GE system, the power MUST be turned off at the branch circuit breaker. According to NEC 240-83(b), 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.

**WARNING**
- Risk of electric shock
- Turn power off before servicing
- Install per National Electric Code

**Model**
- CDT-05-180-R
- CDT-20-360-R
Energy Saver Mode

Use of the Energy Saver Mode, which can be selected by a DIP Switch under the cover, ensures that the sensor always activates one load only. If both loads are ON when the sensor times out and automatically switches Off the lights, only the primary load will be activated. If only the primary or secondary load is ON when the sensor times out and automatically switches off the lights, the sensor will reactivate only the load that was on.

Sensitivity

Sensor ships from the factory in Normal Sensitivity Mode. Should there be a need to decrease the sensitivity DIP Switch 6 can be set to ON to provide a Low Sensitivity setting.

Maintain Lights ON – Either or Both Mode

Lights are activated when the PIR portion of the sensor detects occupancy. The sensor is set at the factory to EITHER Mode. In this mode, lighting is maintained when either technology detects motion. If the ultrasonic portion detects occupancy, the ultrasonic time delay resets. The same is true for the PIR portion of the sensor. Lights deactivate when the last time delay elapses. A 10-second “grace period” allows lights to be turned on by motion anywhere in the room, after being turned off due to inactivity. The dual technology ceiling sensor can be configured to require BOTH technologies to maintain lighting. This is achieved by selecting the Both Mode DIP Switch option. In BOTH Mode, the ultrasonic detection and PIR detection resets the time delay. Lights deactivate when the first time delay elapses followed by a 10-second “grace period”.

Override

The override setting (DIP Switch B ON) allows the lights to remain ON in the unlikely event of sensor failure.

DIP Switch Settings

Wiring Diagram 2: Multiple switchpacks, one sensor

<table>
<thead>
<tr>
<th>Lighting Sweep Option</th>
<th>Sensitivity</th>
<th>DIP Switch Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto</td>
<td>Normal</td>
<td>DIP Switch 6 OFF</td>
</tr>
<tr>
<td>Auto</td>
<td>Low</td>
<td>DIP Switch 6 ON</td>
</tr>
</tbody>
</table>

Troubleshooting

Issue | Possible Causes | Suggestions
--- | --- | ---

Lights Will Not Turn Off automatically

Flow switch voltage option is used lights may have been turned off manually or sensor is set to Manual On mode (DIP Switch 1 ON).

Check low voltage switch.

Wall switch turned OFF

Sensor requires PIR activation first to operate.

Make sure there are no obstructions to sensor’s field of view. Rotate sensor ten degrees either clockwise or counterclockwise to point sensor PIR zones at entrance and exit points of room.

Turn wall switch ON.

Wall switch turned OFF

Sensor requires PIR or airflow activation.

Check for airflow activation:
1. Make sure no other person is in the area.
2. Stand six feet away from sensor.
3. Stand still for 5 seconds watching LEDs.

If LEDs blink or are constantly on without actual motion move sensor away from airflow source.

If sensor still activates with airflow, set low sensitivity DIP Switch 6 to ON.

30 Minute Delay

Check DIP switch 5 setting. If ON, lights should turn OFF in 30 minutes after last motion.

If lights do not turn OFF after 30 minutes follow next step.

Self-Adjust

It may be possible for the unit to self-adjust the time delay to a 30 minute delay. If the lights do not turn off after 30 minutes follow next step.

Sensor or switchpack wiring bypass

Disconnect sensor from switchpack, if lights remain ON, verify switchpack wiring.

Riposs

Check wiring to make sure sensor or switchpack is not bypassed.

Lights Will Not Turn OFF manually

Enable

Make sure sensor override is not enabled.

Limited Warranty

GE warrants that the product will be free from defects in material, workmanship, and title. This warranty applies only to defects that appear within fifteen (15) years from the date of first consumer purchase for defects in which GE should have no time limitation. If the product fails to meet the above warranties, GE will replace, at its discretion, all or part of the product, provided it receives written proof of purchase within thirty days. This warranty is non-transferable, and applies only to the original consumer purchaser. GE’s liability under this warranty is the replacement of the product or any part thereof. The product may be replaced with a product not identical to the original product. GE reserves the right to examine the failed product to determine the cause of failure. The FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND SHALL CONSTITUTE THE SOLE REMEDY OF PURCHASER AND THE SOLE LIABILITY OF GE WITH RESPECT TO DEFECTS IN, OR FAILURE OF, THE PRODUCT WHETHER THE CLAIM IS BASED UPON CONTRACT, INFRINGEMENT, WARRANTY, TORT INCLUDING NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. GE MAKES NO OTHER WARRANTY, STATUTORY OR OTHERWISE, AND NONE IS TO BE IMPLIED. IN PARTICULAR, WITHOUT LIMITING THE FOREGOING, NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OR IS TO BE IMPLIED.