Description

The AP750-ID is an addressable PIR motion sensor that inter-faces with a point ID system. The point ID system provides flex-ible and reliable two-way communication between the device and the controller.
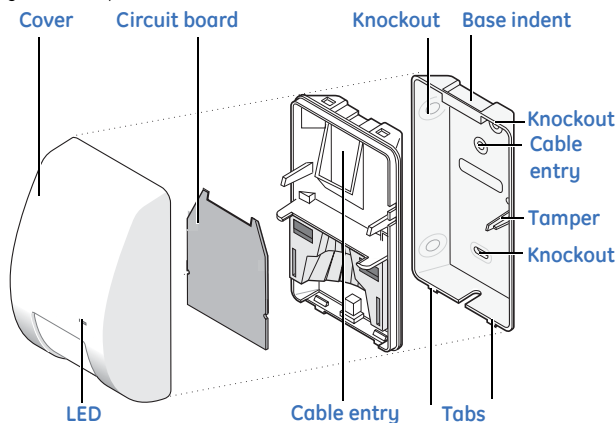
Parts included:

- PIR motion sensor
- Screw to secure the unit to the mounting bracket
- Mounting bracket
- Two plastic masks
- Sheet of adhesive masking labels
- Cardboard undercrawl window mask

Installation

To install the unit, do the following:

1. To separate the PIR unit from the mounting bracket, insert a small, flat-bladed screwdriver between the tabs at the bottom of the unit (*Figure 1*) and turn the screwdriver to push the tabs apart.

Figure 1.   Exploded view

Cover   Circuit board   Knockout   Base indent

Knockout
Cable entry

Tamper

Knockout

LED   Cable entry   Tabs

⚠ CAUTION You must be free of all static electricity before handling sensor circuit boards. Touch a grounded surface or wear a grounding strap before touching circuit boards.

2. Select the coverage pattern and set the sensitivity mode and range DIP switches (*Figure 2*). See *Coverage pattern* on page 2 and *Sensitivity mode and range settings* on page 3.

Figure 2.   Sensor back

Opening tab

Out   In
-   +   -   +

Terminal block

DIP switches

Switch settings
33' STD

50' BI
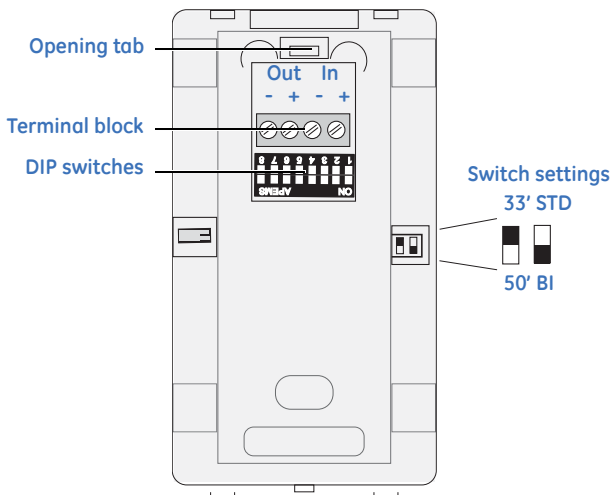
3. Set the point ID address DIP switches (*Figure 2*). Units are shipped with DIP switches set to 255. This is an invalid address. T**he unit will not communicate with the controller until a valid address has been set.** Refer to the controller's manual to determine the correct address setting for each unit.

4. Remove the appropriate knockouts (*Figure 1*) on the mounting bracket for mounting and point ID cable entry. The holes near the tamper actuator are not mounting holes.

5. Pull the point ID wiring through the cable entry. Use screws and wall anchors, if necessary, to attach the mounting bracket to the mounting surface. Do not over tighten.

6. Strip 1/4 inch (6.4 mm) of insulation from the point ID wires. Connect the wiring to the appropriate screw terminals (*Figure 2*) and tighten the screws.

7. Be careful not to catch the wiring as you snap the unit to the mounting bracker.

8. After you install the unit and power up the controller, walk test the unit. See *Walk test* on page 3.

Mounting location

Mount the unit on a rigid, vibration-free surface 6 to 10 feet (1.8 to 3 m) from the ceiling. The expected movement of an intruder should cross the fields of the detection pattern (*Figure 3*).

Figure 3.   Detection pattern
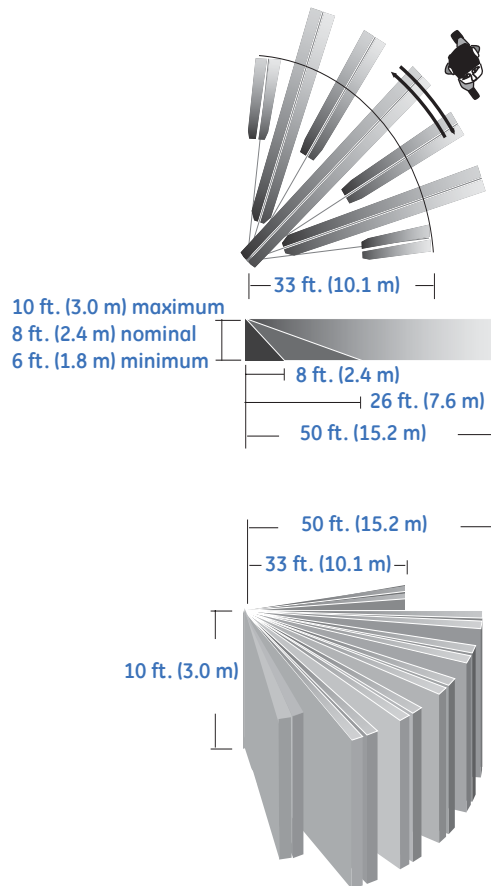
Do not mount the unit:

- On a surface exposed to moisture.
- Where it is exposed to false alarm sources such as: direct sunlight, heat sources in the field of view, and strong air drafts caused by fans and air conditioners.
- Where ambient temperature is below 32 F (0 C) or above 131 F (55 C).

Coverage pattern

The coverage pattern for the unit can be modified to fit specific applications by masking off mirror curtains to avoid sources of false alarms.

To change the coverage pattern, do the following:

1. Push the opening tab up (*Figure 2*) to open the unit.
2. Use one or more of the following methods:
   - Use one or both of the plastic masks (A in *Figure 4*) provided to mask off large areas of coverage.
   - Mask the appropriate mirror curtains with the adhesive labels provided (B in *Figure 4*). Do not use sharp objects to remove unwanted labels. If necessary, carefully peel the label off.
   - Use the cardboard undercrawl window mask (C in *Figure 4*) to allow objects to be placed within 5 feet (1.5 m) of , or directly below the sensor.

Figure 4.   Modifying the coverage pattern
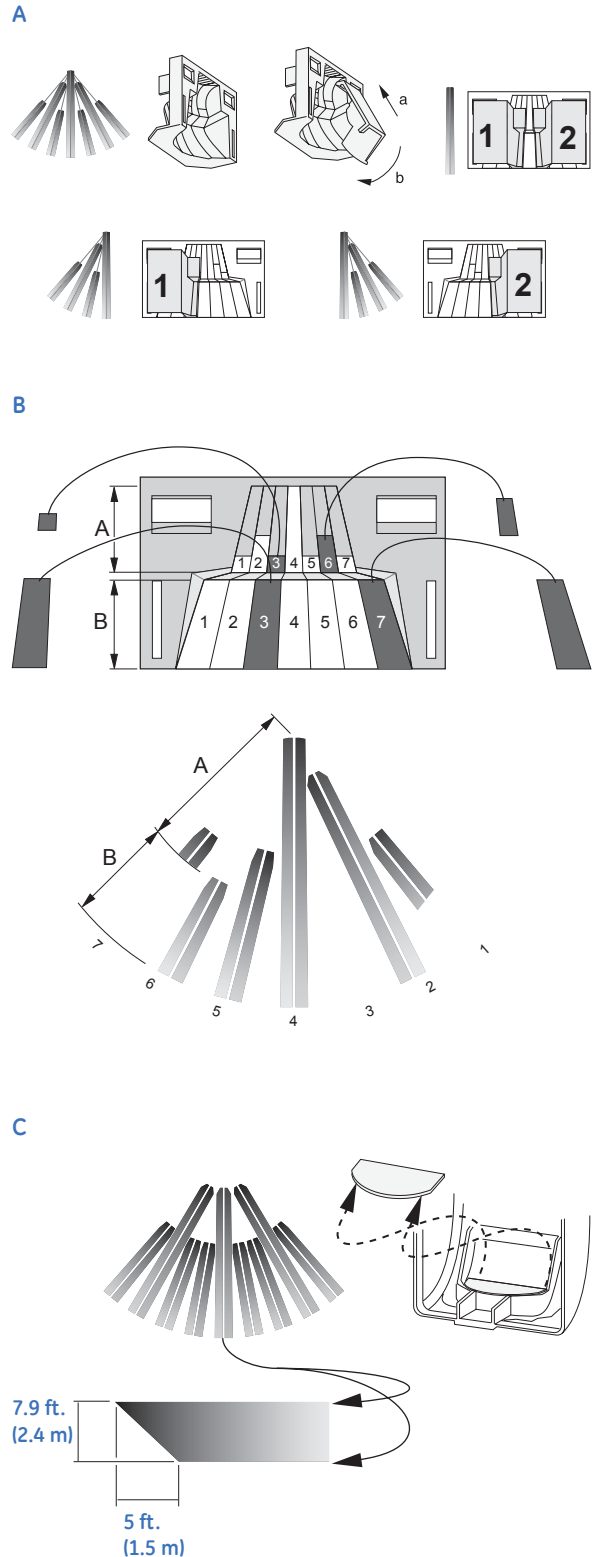
Sensitivity mode and range settings

DIP switches are located on the back of the unit (*Figure 2*) for setting the sensitivity mode and range required.

Sensitivity mode

BI. Bicurtain mode (factory default) increases false alarm immunity in smaller areas and requires the intruder to pass through two curtains to trigger an alarm. Do not use bicurtain mode for single-curtain applications or ranges under 5 feet (1.5 m).

STD. Use standard mode for wide-range or single-curtain applications. Standard mode requires the intruder to only pass through one curtain to trigger an alarm.

Operation in standard mode is UL 639 Listed for the specified ranges of 33 feet (10.1 m) and 50 feet (15.2 m).

For operation in bicurtain mode, the unit is UL 639 Listed fo up to 30 feet (9.1 m). Ranges from 30 to 50 feet (9.1 to 15.2 m) in bicurtain mode are not UL 639 Listed, but will provide detection within 6 steps or 14 feet (4.3 m) across the plane of coverage. This range of detection has not been tested by UL.

Range

Program the DIP switch for a range of under 33 feet (10.1 m), the factory default, or up to 50 feet (15.2 m). It is important to program the range correctly to obtain optimum sensitivity.

Test (see *Walk test*) the unit regularly by walking across the fields of view (*Figure 3*) and checking that the LED lights and that an alarm is indicated at the controller.

Note: The LED only lights if the unit is placed in the walk test mode by the installer and the unit is enrolled in the system.

Pet alley application

To create a detection-free area close to the floor, mount the unit upside down (detector window toward the ceiling) and 3 feet (0.9 m) above the floor. The undercrawl mask should be in place to reduce exposure to the ceiling. Coverage distance is 25 feet (7.6 m) in bicurtain mode.

Pets are free to roam below the mounting height of the unit (*Figure 5*) without causing an alarm.

Figure 5.   Pet alley application

3 ft.
(0.9 m)

Walk test

Use the walk test mode to test the unit's operation and coverage pattern. To walk test the unit, do the following:

1. Ensure the unit is enrolled in the point ID system.
2. Lift the unit from the mounting bracket until the tamper switch opens to enable the walk test mode.
3. When the unit is remounted on the bracket, it remains in walk test mode for 3 to 4 minutes. If additional time is required, depressing and releasing the tamper switch will reset the walk test timer. Depending on DIP switch settings (see *Sensitivity mode and range settings*), the walk test mode allows the unit to alarm whenever one or two curtain areas are entered. The LED visible on the front cover (*Figure 1*) lights to indicate an alarm.
4. Walk test the detection pattern and make any necessary adjustments.
5. Verify the unit is communicating with the control panel.

After walk test mode times out, the unit returns to normal operating mode. In normal operating mode, the unit will alarm no more often than every 3 minutes and the LED is disabled to reduce voltage loss on the point ID bus.
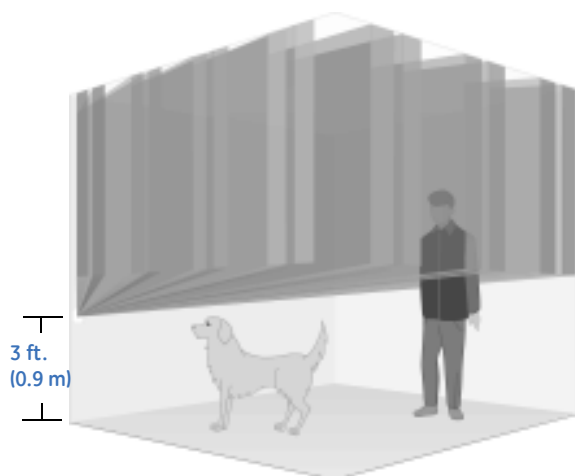
Maintenance

When installed and used properly, the unit provides years of service with minimal maintenance. Clean the inside of the unit with a soft bristled brush or compressed air. Clean the cover with a damp (water) cloth as needed to keep it free of dust and dirt. **Always test the unit after cleaning.**

To ensure proper operation, walk test the unit annually as described in *Walk test*.

Specifications

Operating voltage	8 to 27 V (as supplied by controller)
Current draw	250 uA typical average 3 mA with LED momentarily on
Transmit condition	Alarm, tamper
Detection range	50 ft. (15.2)
Mounting height	6 to 10 ft. (1.8 to 3 m)
Number of curtains	7
Operating temperature	32 to 131°F (0 to 55°C)
Max. relative humidity	90% noncondensing
Maximum line length	10,000 ft. (3 km)
Housing material	Flame-retardant ABS
Color	White
Dimensions	2.9 in. (74 mm) W × 2.2 in. (56 mm) D × 5.1 in. (129 mm) H
Listings	UL 639, FCC, CE

FCC compliance

This device complies with Part 15 of the FCC rules. Operation is subject to the following three conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

3. Changes or modificaitons not expressly approved by the party responsible for compliance could void the user's authority to operatio the equipment.

Product ordering

Product	Description
AP750-ID	Addressable, passive infrared motion sensor for use with a point ID bus.

www.gesecurity.com