AP633A
Passive Infrared Detector
Installation Instructions

Description

The AP633A offers the detection of motion for infrared targets in selectable ranges extending 40 feet (12.2m), 80 feet (24.4m), and 200 feet (61.0m). The viewing angle selection allows the installer to select and delete any portion of the coverage pattern to customize the optical performance of the unit. The mounting plate of the unit is equipped with precise adjustment screws to allow the installer to alter the horizontal viewing point as much as 2 degrees to the left or right, up or down. Features include:

- Step focus curtain
- Calibrated sensitivity
- Coverage up to 200-foot (61.0m) max.
- 12 different protection patterns
- Precision step focus mirror optics
- Form C contacts

Mounting Tips

- Do not mount the unit outdoors.
- Do not block the viewing angle of the unit.
- Mount the unit so that would-be intruders cross the pattern of detection at a 90 degree angle.
- Seal all openings and wire entries.
- When mounting the unit on masonry surfaces, use an appropriate moisture barrier.
- Use of the vertical screw adjustment may reduce the unit's range.
- Avoid these sources of disturbance:
  - Sunlight or vehicle headlights shining directly onto the unit.
  - Heat sources or mobiles in the field of view.
  - Strong air drafts blowing onto the unit.
  - Animals in the field of view.
  - Insects in the housing or on the face of the unit.
  - Rapid temperature changes in the field of view.
  - Very strong sources of RF energy and induction of electrical noise.

Installing the Unit

1. Loosen the screw at the bottom of the unit; then remove the front housing (Figure 1).

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

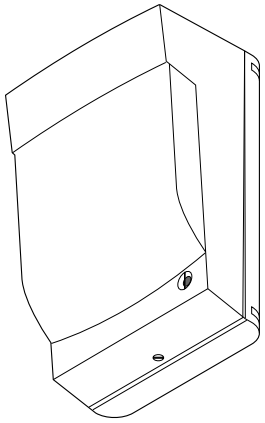


Figure 1. AP633A

2. Pull down on the plastic locking tab at the base of the circuit board to remove the mirror/circuit board assembly. See Figure 2.
3. Remove the appropriate wiring knockouts and pull the cable through the entries. See Figure 3.
4. Level the backplate to the wall leaving a 1/2 inch clearance space above the unit. For flat-wall mounting, use the four mounting holes. For corner mounting applications,remove the mounting knockouts located in each corner. See Figure 3.

   Insert 8-32 x 2 inch screws. Tighten until secure, but be careful not to over-tighten the backplate as you may need to adjust the viewing angle after walk testing.
5. Replace the mirror/circuit board assembly then make wire connections. See Figure 4.
6. Set the sensitivity and test the zone locations. See Figure 5, *Setting the Sensitivity*, and *Testing Zone Locations*.
7. Replace the front housing and tighten the screw located at the unit base.
8. Conduct a final walktest by walking across the unit's field of view - but not directly at the unit.

   Note: Wait at least one minute after applying power to the unit before performing the walktest.

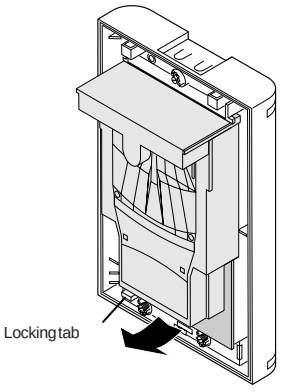


Figure 2. Locking Tab

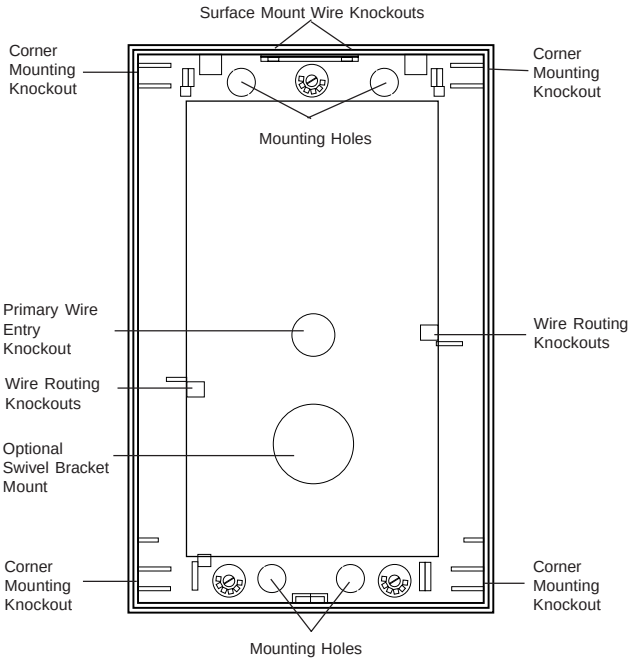


Figure 3. Mounting and Wiring

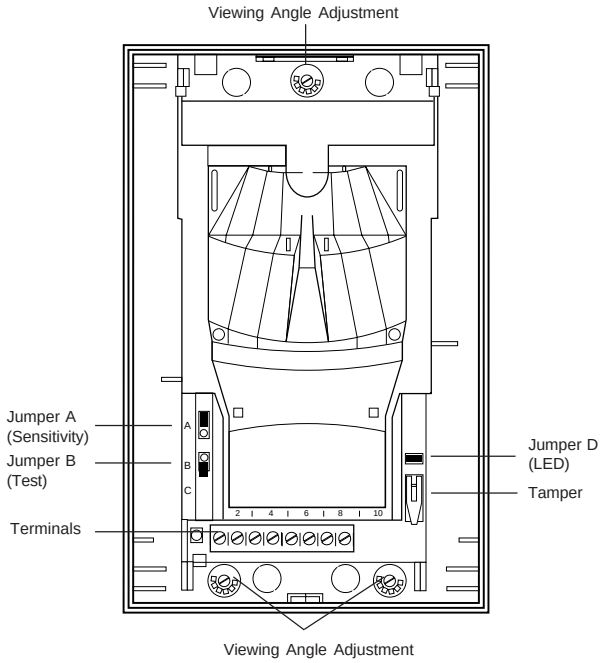
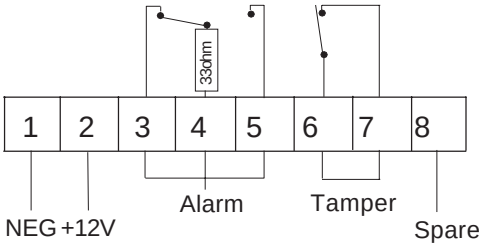


Figure 5. Adjustments and Jumpers



Terminal	AP633A
#1	(-) Negative
#2	(+) Positive
#3	Closed Loop Contact
#4	Common
#5	Open Loop Contact
#6	Tamper Closed Loop
#7	Tamper Closed Loop
#8	Spare (not used)

Figure 4. Terminals

Aiming the Unit

To ensure proper coverage, make subtle pattern adjustments using the three adjustment screws located inside the unit (see Figure 5):

- The top screw adjusts the unit's coverage pattern up or down.
- The bottom two screws adjust the coverage pattern to the right or left.

Setting the Sensitivity

Select the sensitivity setting that best meets the needs of a given application by changing **Jumper A** (see Figure 5). The unit is factory set in the increased sensitivity mode.

Standard Sensitivity - All 40-foot-wide (12.2m) applications (left, right, or full). Use with patterns E, G and H only. See Figure 7.

Increased Sensitivity - 80-foot-wide (24.4m) angle areas, 40-foot (12.2m) curtain only or long-range applications. Use with patterns A through L. See Figure 7.

High Sensitivity - Use only in hazard-free, high-security applications. Use with patterns A through L. See Figure 7.

Note

The unit ships with the 200-foot (61.0m) plastic mask (marked "6") insert in place. The 40-foot (12.2m) center curtain is always enabled to ensure undercrawl detection.

Testing Zone Locations

The test feature allows you to identify each zone of coverage and avoid "splitting" a zone of coverage between two areas with dissimilar infrared energy levels, such as a metal door and a freezer. **Jumper B** is factory set with the test mode disabled (see Figure 5). To test the zone locations:

Test - On

1. Insert Jumper B so that both pins are covered.
2. Without stopping, walk across the coverage pattern and watch the unit. Each time you enter a zone, the green LED illuminates. When the green LED goes out, you are in the center of a zone or between two zones.

Test - Off

3. After identifying each zone location, return the unit to normal mode by inserting Jumper B on only one pin so that the two pins are not connected.

Note

Be certain to carefully locate field of view for required detection. As with all PIR units, there is no detection between fields of view. Installation must be tested one or more times yearly.

Setting the LED

Use **Jumper D** to enable/disable the LED. The LED is factory set in the enabled mode. See Figure 5.

Optional Swivel Bracket

For special applications, an optional swivel bracket is available . See Figure 6.

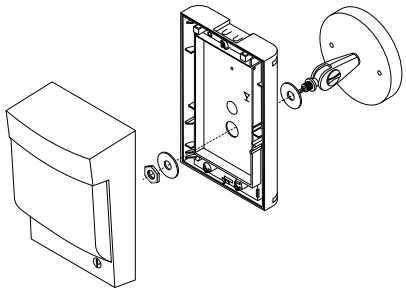
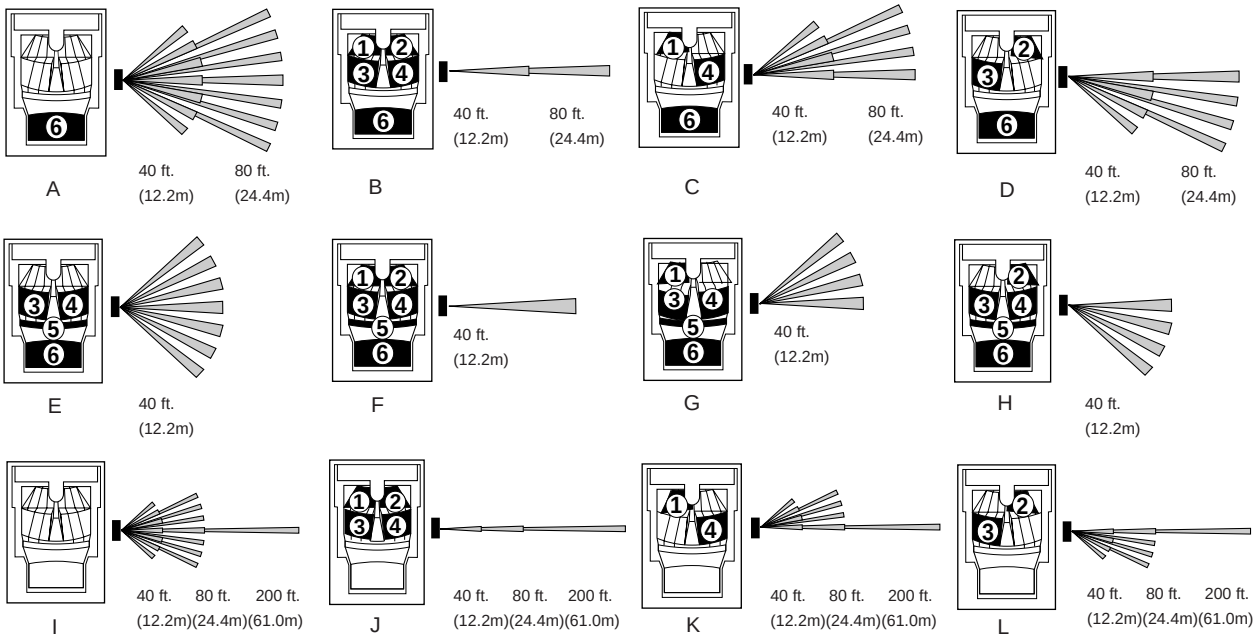
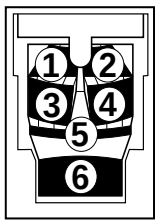


Figure 6. Optional Swivel Bracket

Coverage Patterns





1 - Removes Right 40 ft.(12.2m), Wide Angle Pattern
2 - Removes Left 40 ft.(12.2m), Wide Angle Pattern
3 - Removes Left 80 ft.(24.4m), Wide Angle Pattern
4 - Removes Right 80 ft.(24.4m), Wide Angle Pattern
5 - Removes 80 ft. (24.4m), Center Pattern Only
6 - Removes 200 ft.(61.0m), Long Range Pattern Only
(Right - Left, as viewed from the detector.)

Figure 7. Coverage Patterns

Specifications

Input power	9.5-15 VDC
Peak to peak ripple	2V max. (@ 12V)
Current consumption	25mA average (normal operation, LED enabled), 40mA max.
Contact rating	Alarm - 100mA @ 28 VDC with 33 ohm resistor in series Tamper - 100mA @ 28 VDC
Coverage pattern	12 selectable patterns using snap-on blockers
Mounting height	6' to 10' (1.8m to 3.0m)
Operating temperature	0°F to 131°F (-18°C to 55°C)
Dimensions	6.3" x 4.1" x 3.0" (16.0cm x 10.4cm x 7.6cm)
Listings	UL 639

GE INTERLOGIX AP633A

Tested To Comply With FCC Standards

FOR HOME OR OFFICE USE

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference thay may cause undesired operation.

Ordering Information

Part Number	Electrical Configuration	Comments
AP633A	Form C, SPDT (closed or open loop)	40', 80' Wide Angle and 200' Long Range, Passive Infrared Motion Sensor
BR601		Wall Mount Swivel Bracket

The unit is to be connected to a UL Listed power supply or control unit capable of providing a minimum 4 hours of standby power. The equipment should be installed in accordance with NFPA 70. The unit should be tested at least once a year.

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