

ADEMCO

INSTALLATION INSTRUCTIONS

No. 5775
PASSIVE INFRARED
MOTION DETECTOR/TRANSMITTER

GENERAL INFORMATION

The No. 5775 Passive Infrared Motion Detector/Transmitter is a battery operated, wireless device intended for use as part of a 5700 Series Wireless Alarm System, and provides wide angle coverage with 9 detection zones, with a range of up to 35 feet.

This document provides installation instructions for the No. 5775, but it is recommended that the installer also be familiar with the installation instructions for the 5700 Series Receiver/Control.

FEATURES

- A dual element pyro-electric sensor provides positive protection while minimizing false alarms.
- Alternate polarity pulse count option offers greater stability in adverse environments.
- Walk Test LED for added ease of system checkout.
- Removable battery compartment drawer for easy battery replacement without the need to remove the unit's cover.
- Convenient wall or corner mounting options
- Wireless operation for fast and easy installation.
- Pet alley mounting option.

SYSTEM DESCRIPTION

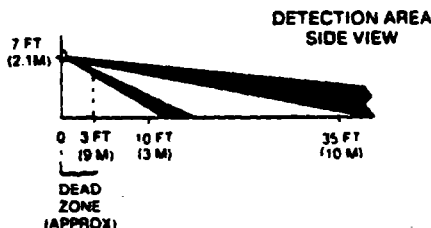
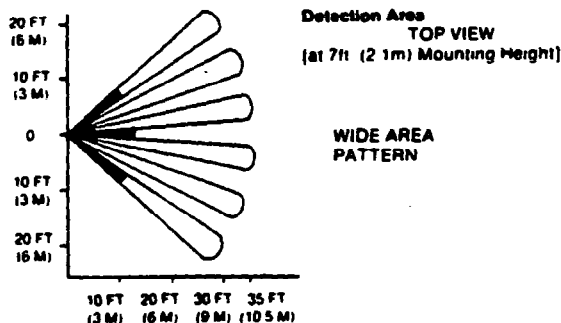
Optical System: The No. 5775 uses a computer designed optical system which divides the protected area into a series of six wide-angle zones, spanning a total angle of 84° from the detector, and three downward angled zones, which provide overlapping coverage to the floor level (refer to diagrams 1 & 2). A dual element pyro-electric sensor within the No. 5775 measures the level of infrared energy in each zone, and detects any changes therein. When an intruder crosses or enters any zone, the resulting change in infrared energy triggers an alarm. The alarm is then transmitted to the system's Receiver/Control where it is processed. Since far infrared energy does not penetrate most building materials (including window glass), the No. 5775 responds only to movements inside the room or protected area.

Radio Transmitter: The built-in transmitter serves only as the communication link to the system's Receiver/Control. It is *not* used for detection purposes. Thus, more than one detector can be used in the same area. Radio messages sent from the detector's transmitter to the system's Receiver/Control uniquely identify the detector, and also contain appropriate alarm, supervisory or low battery information. A DIP switch located on the main PC board is used to program the required "House ID" and "Transmitter ID" numbers (described in the system's installation instructions). To conserve battery life, no more than one transmission sequence will occur within any three minute period. During the "cover off" test mode, however, transmissions are *not* time restricted.

Alternate Polarity Pulse Count Option: The No. 5775 provides two DIP switch selectable detection response modes: Instant Response and Alternate Polarity Pulse Count. When set for Instant Response, any detected change in infrared energy will trigger an immediate alarm. This mode is recommended when the detector is used to monitor a hallway or long corridor, where it will detect an intruder's presence immediately upon entry. Instant mode is also useful during installation walk tests.

The Pulse Count option can be used in protected areas where periodic changes in infrared energy levels are normal (a forced air heating duct, for example). When selected, a detected change in infrared energy is first verified before an alarm is triggered. The verification process requires that the sensor detect at least two consecutive changes in infrared energy within a given time period, before generating an alarm.

IMPORTANT! If the Pulse Count option is desired, be sure to walk test the unit while it is set for Pulse Count operation to ensure the proper operation of the unit while in this mode.



Diagrams 1 & 2. PROTECTION PATTERNS

INSTALLATION PRECAUTIONS

Refer to the *Preliminary Location Considerations* section of the 5700 Series System Installation Instructions for additional information concerning precautions for the system's Receiver/Control.

Unprotected "Dead Zone": The optical system is designed to give proper coverage based on a typical mounting height of 7 feet (2.1 m). There is, however, an area from the mounting wall to about three feet (0.9 m) away, within which motion goes undetected (shown in diagrams 1 & 2). This area is known as a dead zone. Be sure to consider this area when deciding on mounting locations.

Finding Suitable Locations: Since the No. 5775 responds to an intruder's movements into or out of a protected zone, best protection will be obtained by selecting a mounting site where an intruder's motion will most likely be across a number of zones.

A strong radio transmission path to the Receiver/Control is vital to the security of the system. Before deciding on permanent mounting locations, be sure that the location is completely suitable by performing the *Radio Transmission Path Check* described later in this document.

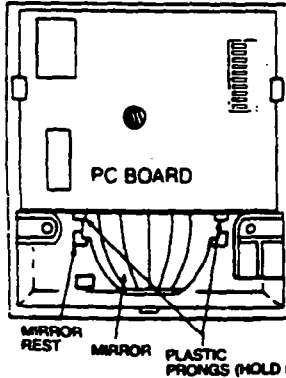
Passive infrared detectors are remarkably resistant to false alarms, but since they are designed to respond to rapid changes in infrared energy levels, the precautions shown below should be taken for optimum performance.

Normal mounting with masked mirror option: The detector can be mounted normally at 6 feet (1.8m) from the floor with the downward pointing portion of the mirror masked.

IMPORTANT! This option is valid *only* for rooms up to 15 ft. X 15 ft. (4.5m x 4.5m) in size.

1. Mask the mirror using electrical or masking tape as shown in diagram 4.
2. Mount the detector using normal mounting procedures at a height of 6 ft. (1.8m).
3. Check that no motion is detected within 3 ft (0.9m) of the floor.

Using the No. 1875PA Pet Alley Mirror: This option mirror can be used in lieu of masking the existing mirror. Refer to its installation instructions for details. To replace the mirror:



1. Spread either or both plastic prongs holding the wide angle mirror and remove the mirror.
 2. Insert one side of the No. 1875PA mirror under a prong and snap the other side under the other prong. Make sure that the mirror sides are squarely in their corner rests and are held securely under the prongs.
- NOTE:** Mirror surface should be free of dirt, foreign matter and fingerprints. Use a clean dry soft cloth to wipe mirror surfaces if required.

Inverted Mounting Option: The detector can be mounted approximately 3 ft. to 3.5 ft. (0.9 - 1m) from the floor in an inverted position (PIR window at top), with spacers attached to the mounting case. When installed in this manner, the portion of the mirror which normally provides a downward beam of protection now provides an upward pointing beam.

Before mounting inverted, note the following:

- Be sure that furniture and other objects do not block the detector's pattern of protection.
 - If possible, install a detector so that it is not directed at ceiling areas that include heating or air-conditioning ducts, vents, ceiling fans or lighting fixtures. If these sources of infrared energy or turbulence cannot be avoided, the upward pointing beams must be masked to avoid the possibility of false alarms. To mask the mirror, remove the front cover and apply electrical tape or masking tape as shown below:
 - Verify that the location provides a strong radio transmission path to the Receiver/Control as described earlier.
1. Attach the spacers to the detector as follows:
 - a. If mounting to flat wall: Assemble the two spacers, one above the other, and affix the combination to the area of the mounting case shown in diagram 4.
 - b. If mounting in a corner: affix one spacer to the rear of each of the corner mounting sides of the mounting case, as shown in diagram 4.
 2. Mount the detector mounting case upside-down approximately 3 feet (0.9m) above the floor using the procedure described earlier.
 3. Check that no motion is detected within 3 feet (0.9m) of the floor.

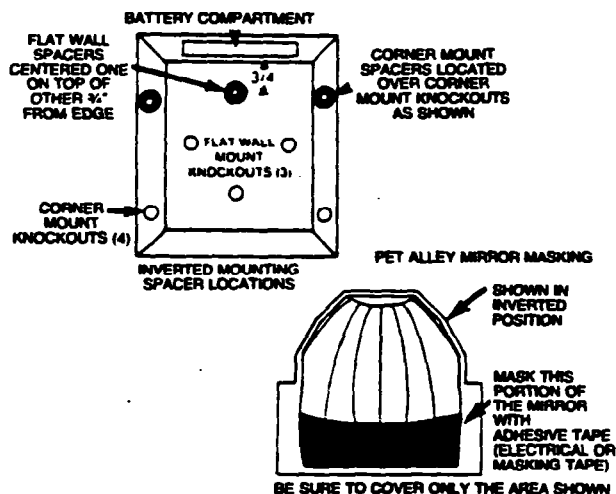


Diagram 4. INVERTED/PET ALLEY MOUNTING

WALK TEST

(Refer to the Location Test section of the system's Installation Instructions for additional information)

NOTE: The No. 5775 requires a two-minute "warmup" period after applying power.

1. Remove the front cover from the No. 5775 (to permit more than one transmission every 3 minutes). Set unit to Pulse Count mode if that option is to be used.
2. Place the system's Receiver/Control into Test Mode.
3. Walk into the protected area. The Walk Test LED will light when the detector senses your motion, and the Receiver/Control will signal the detector's alarm transmission (typically by sounding audible beeps at the Keypad).
4. Replace cover and verify operation at the keypad.

NOTE: LED will not light with cover in place, but the transmitter ID will be displayed at the keypad when the detector is faulted.

MAINTAINING PROPER OPERATION

In order to maintain the detector in proper working condition, it is important that the following be observed by the user.

1. Power must be provided at all times. The 9V battery should supply enough power for one year of normal operation. Use of a lithium battery can provide extended operation up to four years (see Specifications section). The battery should be replaced within 30 days of a low battery indication at the Receiver/Control's console.
2. The No. 5775 should never be re-aimed or relocated without the advice of the alarm service company.
3. The physical surroundings of the protected area will affect the pattern of protection if changed after the time of installation. For example, if furniture is moved, or air-conditioning or additional heating is installed, the system may have to be readjusted by the alarm service company to ensure proper protection.
4. Walk tests should be conducted frequently (at least weekly) to confirm the proper coverage by each detector. This is accomplished by selecting the Test Mode at the Receiver/Control's console, walking through the protected area, and noting the alarm condition displayed at the Receiver/Control's console.

Note that with the No. 5775 front cover in place, only one alarm transmission will be transmitted within every three minute period.

TROUBLESHOOTING

PROBLEM	PROBLEM CAUSE	REMEDY
Unit Goes into Alarm For No Apparent Reason.	Rapid change in infrared energy levels in one of the protected areas. Some of these sources are electric or gas heaters, open flames, electric arcs, or any objects which may be partially in a zone and can change temperature rapidly.	Identify the source of the infrared energy or temperature change. Re-position the detector so that the source is no longer in a protected zone, if the source cannot be moved.
	Birds or other small animals are entering the area.	Eliminate all possible entry points for birds, cats, dogs, rodents, etc. Contact exterminator if necessary.
Area of Coverage Has Changed	User has re-positioned furniture in a protected area.	Caution user that changes in layout can affect coverage. Re-aim or relocate the detector according to installation instructions. Be certain that the detector has not been tampered with.
	Mounting surface is unstable. A few degrees vertical shift can change range substantially.	Mount the detector on a stable surface.
Unit Does Not Appear To Be Operating	Unit is not receiving power.	Check for appropriate battery voltage. Install new battery if necessary.

SPECIFICATIONS

Dimensions:	3 1/2"W x 3 3/4"H x 2 1/4"D (7.6cmW x 9.7cmH x 5.9cmD)
Weight:	7.0 oz. (200 grams) with battery/ 5.4 oz. (150 grams) without battery
Detection Method:	Passive Infrared
Coverage:	35 ft. (10.6m) x 45 ft. (13.7m), 84° angle
Detection Zones:	9 zones (6 long, 3 short)
Pulse Count:	Installer option
Detectable Walk Rate:	0.5 - 5 ft./second (0.15 - 1.5m/sec)
Mounting Height:	7 ft. nominal (2.1m)
Transmit Frequency:	345MHz (U.S.)/315MHz (Canada)
Transmission Range:	100 ft. (30m.) nominal
Input Voltage:	9V from one Lithium™ or Alkaline type battery. Acceptable Models are: Kodak Ultra Life US9V (Ademco No. 485) Duracell MN1804 (Ademco No. 484)
Operating Humidity:	Up to 95% RH (max.) non-condensing
Operating Temperature:	32°F to 122°F (0°C to 50°C)

*Use of a lithium battery can provide up to four years of operation. UL listed installations, however, are currently approved for 1 year lithium battery life only.