

Amano Motion Sensor



Wall Mount Instructions

The sensor is attached to a wall or corner by means of a magnetic bracket, which allows easy adjustment of viewing direction (*detection-coverage pattern*) as well as easy dismounting for battery replacement.

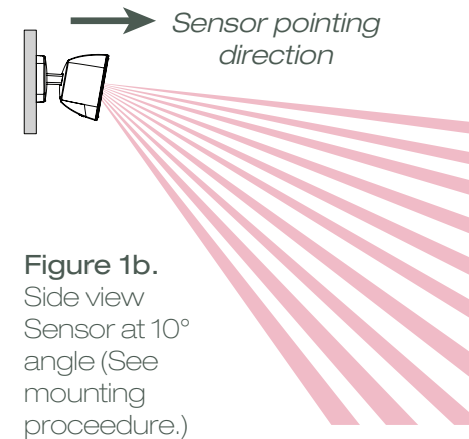


Figure 1b.
Side view
Sensor at 10°
angle (See
mounting
proceedure.)

NOTE: Special optical design allows the sensor to detect minor body motions within a **16' x 16'** area, and major body motions within a **20' x 20'** area.

In order to provide this performance, the sensor must be mounted on its standard bracket, within a one of two height ranges:

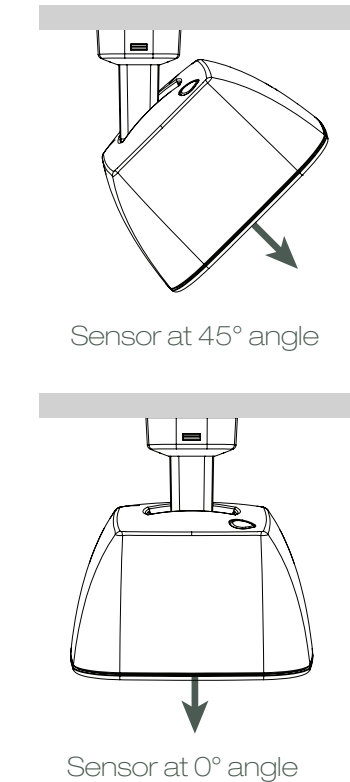
6' 6"– 8' 6" (2.0m – 2.6m)

or

8' 6"– 10' 6" (2.6m – 3.2m)

Preferred heights are: **7' 6"** (2.3m) and **10' 0"** (3m).

Figure 1a. Plan (Top) view



Selecting mounting location and detection-coverage pattern:

Basic rectangular-room application: The sensor "sees" within a 90° angle (+/- 45° left/right from its pointing direction (as shown in top view Figure 1a), via a total of 80 fields of view ("views").

These views aim both outward and downward from the sensor (6° to 54° or 11° to 59°) as shown in side view Figure 1b.

Thus, an entire room (up to 20' x 20') can be covered by mounting the sensor in one corner, as shown in the plan view figure 2a. Occupancy is detected in response to radiant-temperature changes seen within a view, for example, when persons move into or out of a view.

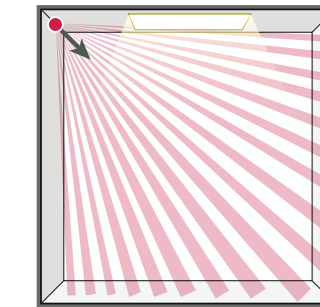


Figure 2a. Place sensor facing away from large windows.

Orient the coverage-pattern views so that they don't lead directly from the sensor to items such as:

1. Larger (street-facing) windows (Figure 2b)
2. Portable or wall-mounted heaters
3. People in adjacent rooms via doors wall openings.

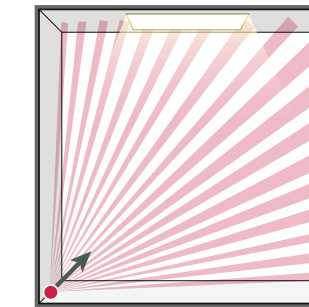


Figure 2b. Avoid sensor facing large windows.

FCC Interference Statement

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 that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Coverage control for specific applications:

In any mounting configuration, the sensor may be rotated in order to provide defined detection coverage. Several useful configurations are possible with the sensor mounted on a flat wall.

Figure 3 shows a defined coverage/non-coverage pattern in a rectangular room, with the sensor rotated 45° on a flat-wall-mounted bracket. Figure 4 shows a different rotation position whereby the sensor will ignore a non-entry walking route.

Figure 3.

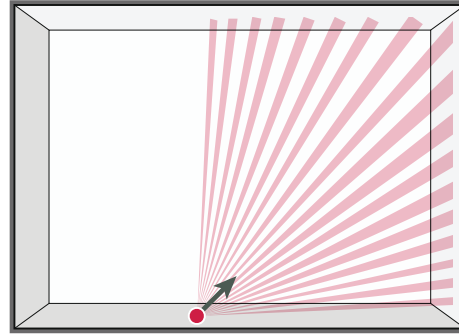


Figure 4.

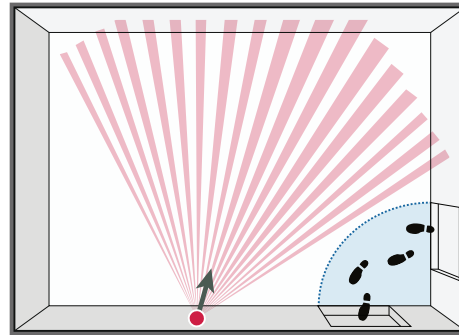


Figure 5 shows the coverage pattern with the sensor mounted and pointing straight outward in a 16' x 32' room.

Figure 5.

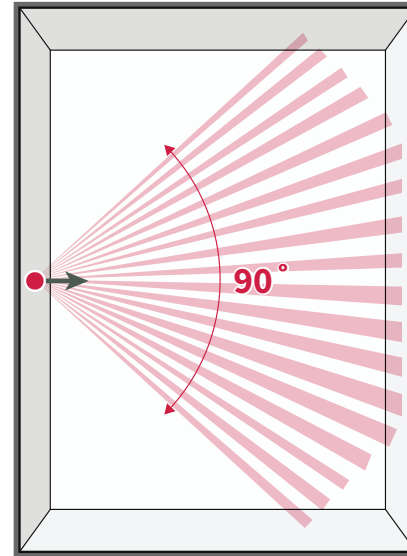


Figure 6 shows the sensor rotated 45° on a flat-wall-mounted bracket to ignore motion within a non-entry walking route.

Figure 6.

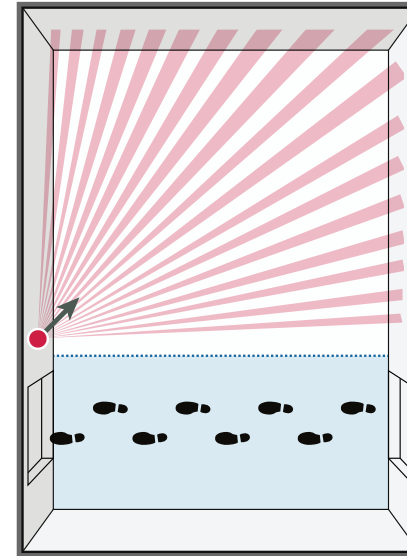
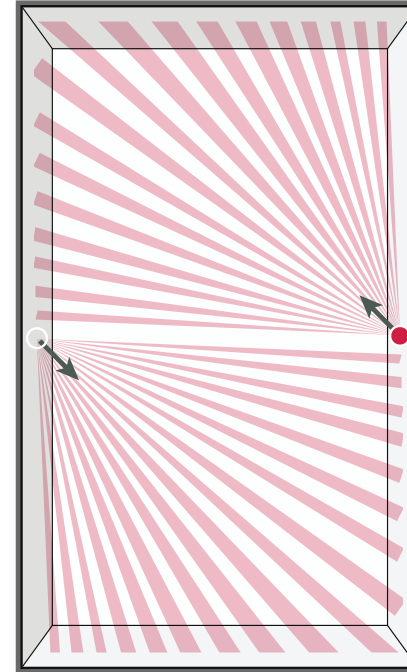


Figure 7 shows a 20' x 40' room covered by 2 sensors.

Figure 7.



Mounting height:

Choose a mounting height between **6' 6"** and **10' 6"**. (*Preferred heights are 7' 6" and 10' 0".*)

Mounting procedure:

The sensor's bracket is mounted by two screws along a vertical line, as shown in figure 8 and figure 9, either on a flat wall or in a corner.

Use the provided drill template, or mark two positions, **7/8"** (22mm) apart, and drill two holes (xx if anchors are used, or yy if only screws will be used).

Note that the bracket's vertical angle is not 90°. According to the mounting height selected, orient the bracket sloping upward (*number "5" up*) or sloping downward (*number "10" up*). Figure 9 illustrates the bracket with the number "10" up.

6' 6" – 8' 6"
5 up (*sensor facing downward at 5° angle*)

or

8' 6" – 10' 6"
10 up (*sensor facing downward at 10° angle*)

Install the two screws to fasten the bracket.

Install the wall-mount cover (*figure 8*) or the corner-mount cover (*figure 9*).

Figure 8.

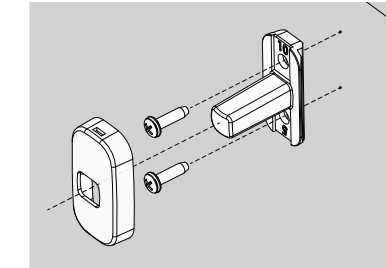
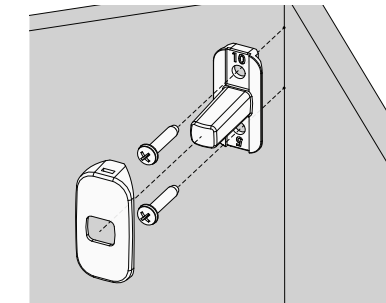


Figure 9.



Industry Canada Statement:

This device complies with RSS-210 of the Industry Canada 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 that may cause undesired operation.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.