

Installing AX-100 Side-beam Infrared Sensor

The AX-100 infrared sensor is used when it is not possible to install an OS-type mini-beam sensor because the entrance is wider than 15 ft. (4.5 m).

Checking the Parts of an AX-100 Sensor

Ensure that you have both parts of the AX-100 sensor:

- 1 transmitter
- 1 receiver

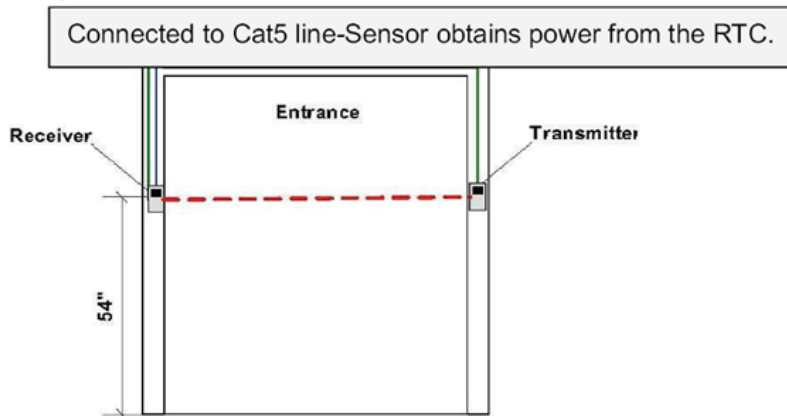


Lens units
can be swiveled
for optical
alignment

AX-100 sensor components (covers off): transmitter (on left); receiver (on right)

Determining Placement of AX-100 Sensor

Ideally, the AX-100 sensor is installed as shown below:



Placement of the parts of an AX-100 sensor

To determine placement of the parts of an AX-100 sensor:

Choose a location keeping these points in mind:

The sensor should be installed as close to the entrance as possible. The door frame is recommended.

There must be a clear, unobstructed path between the transmitter and receiver for the beam to pass.

The recommended height for the transmitter and receiver is 54 in. (1.37 m).

If the transmitter and receiver cannot be installed at the recommended height, they should be installed between 51 in. (1.29 m) and 56 in. (1.42 m) above the floor.

If there is a door handle, the beam must be at least 4 in. (10.16 cm) above the handle, but not higher than 56 in. (1.42 m).

Ensure that the door swing will not interfere with the sensor when a customer opens the door.

The transmitter and receiver can be mounted so that the housings are not directly facing each other because their lenses can be aligned afterwards.

Mounting an AX-100 Sensor on the Wall (or Door Frame)

Mount the transmitter and receiver as follows:

1. Remove the front covers of each device by loosening the locking screw under the cover and swiveling the cover upward.



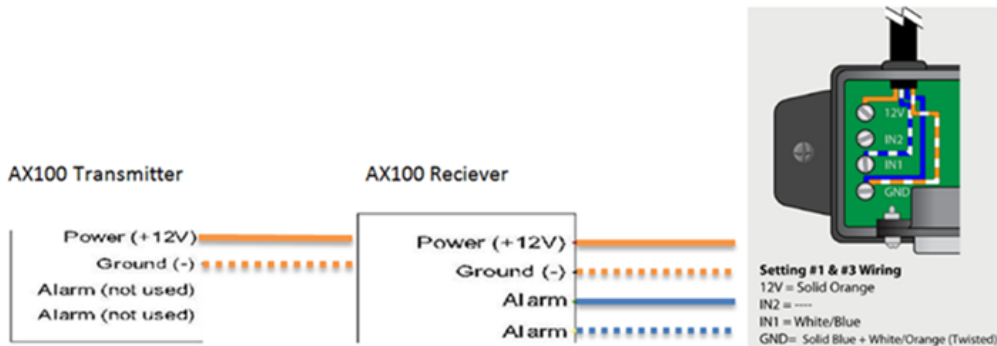
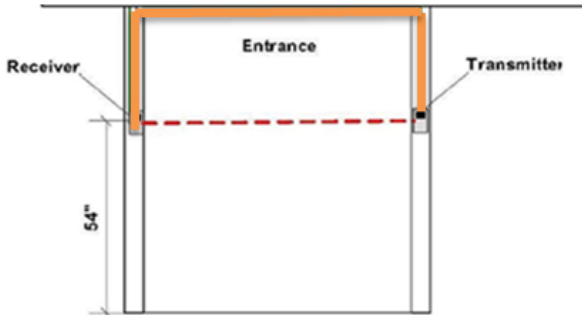
Removing the cover an AX-100 transmitter or receiver

- 1 Mount the transmitter on the wall (or door frame) on one side of the entrance (ideally at 54 in. or 1.42 m above the floor; not lower than 51 in. or 1.29 m; not higher than 56 in. or 1.42 m).
- 2 Mount the receiver on the other side of the entrance at the same height.

Connecting an AX-100 Sensor to a Junction Box

Note: In this section, "CAT-5 cable" is used generically to refer to: CAT-5, CAT-5E or CAT-6 cable.

The following wiring diagram shows the connections that you must make for an AX-100 sensor. You will find detailed directions for making the connections after the diagram.



- Wire the receiver to J-Box using cat 5 cable run
- Transmitter is jumping power from AX-100 receiver (run cat 5 cable from Receiver to transmitter)

1. Cut a piece of cat-5 cable long enough to cover the distance between the transmitter and receiver. A distance of more than 300 ft. may affect accuracy of the signal.
2. Use the cable to connect the receiver to the transmitter. Using the same (Power +) and (Ground -) Connections
 - a. Connect Orange to terminal 1 Power (+12V)
 - b. Connect Orange/White to terminal 2 Ground (-)
3. Connect Cable Run to the Receiver and wired to the Junction Box.
 - a. Connect Orange to Terminal 1 Power (+12V)
 - b. Connect Orange/White to Terminal 2 Ground (-)
 - c. Connect Blue to Terminal 4 Alarm
 - d. Connect Blue / White to Terminal 5 Alarm

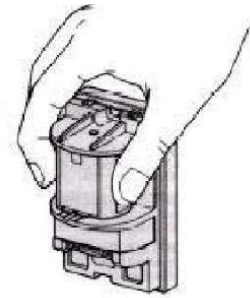
Aligning the Optics of an AX-100 Sensor

The transmitter and receiver of an AX-100 sensor each contain a lens that can be swiveled about a vertical axis. The lenses must face each so the two units are “optically aligned”.

When installing the transmitter and receiver, you may not have been able to make their housings face each other. In this case, you can swivel the two lenses towards each other.

To align the lenses of the transmitter and receiver

- If the transmitter and the receiver are mounted so that the housings are not directly facing each other, swivel the lenses of the two units to make them face each other.



Swiveling the lens of an AX-100 transmitter or receiver

Checking the Optical Alignment of AX-100 Sensors

After power is applied to the sensor (which happens when you apply to the RTC9000), you can check that the transmitter or receiver are optically aligned as follows:

1. Remove the covers of the transmitter and the receiver.
2. Aim the transmitter’s lens toward the receiver.
3. Look at the transceiver from directly in front of the receiver’s lens. When the LED of the transmitter is brightest and clearly seen, the receiver is in the beam’s “sweet spot”.
4. Replace the covers on the transmitter and the receiver.