



Wireless Contact Sensor Installation Guide

for use with Control4

Accessing Battery

The Contact Sensor battery can be accessed by removing the top of the case from the bottom.

Active End →

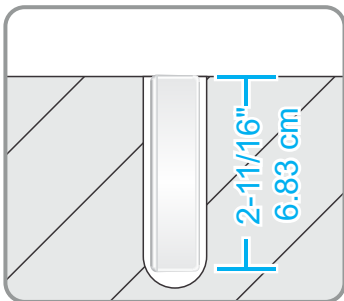


On the active end of the device is a slot that can be used for twisting a small screwdriver to remove the bottom. It is held securely by four hooks so reasonable pressure must be applied to release it. Take care when handling the opened electronics to not break the glass vial of the contact sensor, as it is fragile and can be easily broken.



Invisible Mount (Cont'd)

The Active End of the Contact Sensor should end up flush with the surface. If the device sits too deep magnetic contact function and ZigBee wireless function may be compromised.



Overview

Axxess Contact Sensor can be installed and configured for operation in several different ways. The most typical use will be with the integrated magnetic sensor used to detect the open or closed status of doors, windows etc. It can also sense temperature data.

Included

Contact Sensor Device
2 Parallel Magnet cases (tall & short)
2 disc magnets (1/16 & 1/32 thick)
Wire harness for external contact
1/2" wide double sided foam (sensor mounting)
1/4" wide double sided foam tape (parallel magnet case mounting)
3/8" diameter double sided tape (disc magnet mounting)

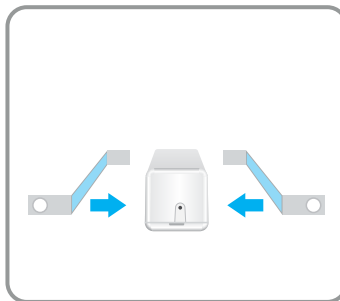
General Mounting Instructions

Before mounting, make sure the device is in a location where you can still push the button to join it to the ZigBee network. If it is to be mounted in a difficult to reach location view the instructions for ZigBee networking and join the device to the network before mounting.

The Contact Sensor will be mounted either to the movable part (door, window, etc.) with a suitable magnet mounted to the fixed part (frame, cabinet etc.) or vice versa. The best configuration will be application specific.

In either case the movable part must move far enough to disengage the magnetic switch (at least 1/2"). Magnet options are described on page 2.

If the device needs to be located where the door is hollow, or if the hole was drilled too deep, attach the hanger brackets with double sided adhesive on either side of the device.



Battery and Power

This device ships with a high density 1/2 AA, 3.6V Lithium battery inserted.

The battery has unique properties, highly superior to alkaline or Li-ion batteries, with its high energy density and extra-wide operational temperature range.

When the device is not joined and in deep sleep, the battery's unique chemistry maintains the highest output quality by periodically "exercising" for a moment. This keeps it fresh and ready for immediate use. We advise against removing and storing the battery separately.

Batteries can be purchased online. A common brand is TADIRAN. Distributors can be found on their website.

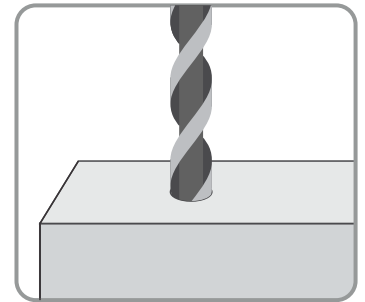
Battery Life: 4 Years

Surface Mount

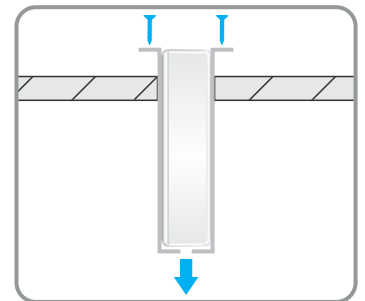
The contact sensor can be mounted with double sided adhesive which is included. Attach it to the base (side with 3 holes).

Invisible Mount

Drill a 7/8" diameter hole with a depth of 2-11/16" into the door or door frame near the strike edge of the door. Ensure hole is straight to prevent binding.



After attaching the brackets, install Contact Sensor into the 7/8" hole. Hanger brackets can be secured with countersunk woodscrews to screw down the device.

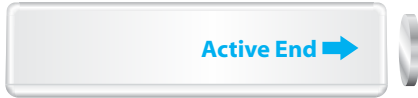


Magnet Options 10

The magnetic reed switch is located at the Active End of the device. Several magnet options are available to accommodate a variety of conditions and applications.

Disc Magnets

These come in two different sizes, each 1/2" in diameter, one 1/32" thick, the other 1/16" thick. The disc magnet should be mounted with adhesive opposite the Active end. The choice of magnet depends on the distance from the Active End. The thicker disc has twice the pull strength of the thinner one.



Case Magnets 11

Are of equal length as the Contact Sensor. These can be mounted parallel to the Contact Sensor. The 2 cases are of different heights, so as to suit different on-site situations. In each, the magnet is located at one end of the case. The magnet end of the case must be mounted toward the Active End of the contact sensor. The magnetic end of the case is marked by a "M" in the center of the face. It can also be determined by moving the case near a ferrous metal object.



ZigBee Network 13

The device has to be mounted within the range of the ZigBee network in which it is to operate.

A push button is located inside the pinhole on the Active End of the device, which can be pressed with a paper clip. This push button is used for the following functions and confirmation is given by corresponding audible tones.

- | | | | |
|--------|---------|---|--------------------------------------|
| Join: | 4 taps | ▶ | 6 beeps - ascending |
| Leave: | 13 taps | ▶ | 6 beeps - descending |
| Setup: | 8 taps | ▶ | 2 beep - ascending |
| Reset: | 15 taps | ▶ | 6 beeps - ascending (If joined) |
| | | ▶ | 6 beeps - descending (If not joined) |

Testing Magnet 16

It is important for proper operation that the magnet be installed at the best operating distance from the Active End. To test for proper closing and opening of the magnetic switch, put the Contact Sensor into setup mode by:

- A. Pressing the push button 8 taps
- B. Setting Setup mode in Composer

The device will answer with 2 ascending beeps. In setup mode, the device will beep when the magnetic switch is closed and stop beeping when the magnetic contact is open. The device will automatically leave setup mode after 8 minutes.

ZigBee Network (Cont'd) 14

When joining, the device will beep up to two times while searching for a network. Once joined it will give 6 ascending beeps. On power up the device will give 6 ascending beeps indicating it is joined, or 6 descending beeps indicating it is not joined.

The range can vary depending on the strength of the router it is connected to, as well as physical obstructions. Typically the device can communicate up to 400 feet in the open, however, this can be reduced to 40 feet when indoors depending on the routing device. Ensure the network is designed properly and that router strength and physical barriers are considered.



Troubleshooting 17

There are only 2 device conditions that can be broken.

If you hear the beeps in response to network taps, then you have battery power.

If not, reseal battery. After resealing battery the device will boot up. Following boot up network taps should result in beeps. If not, try a new Axxess approved battery.

If you hear beeps upon taps but you don't receive ZigBee messages for open or close put the device into test mode (8 taps) and use handheld magnets to open and close the magnetic sensor.

Additional Features 12

The Contact Sensor can be fitted with external dry contact leads. Any external dry contact connected to those leads will be treated like a magnetic switch closure.

To attach the external contact leads, you need to open the case (before mounting) and insert the male connector end into the available female connector. This should be done WITHOUT removing the PCB from the case. It will require fine point tweezers.

If you were to remove the PCB you must be very careful with reinsertion. The small glass vial of the contact sensor can easily be broken. To lead the wire out of the case cut the breakout area on the edge of the case with clippers.

Please watch our video at:

www.axxind.com/dealers/videos

External Contacts Shown 15



Composer

Instructions for using this device with composer can be accessed on our website: axxind.com/dealers/composer

Drivers

Control4 device Drivers are available for download on our website: axxind.com/dealers/drivers

The parameters that may be set up in the device driver are self-explanatory. The properties page contains a battery level value, which may be programmed against to provide notification for battery replacement.

If the device responds with beeps when the contact is closed (magnet touches active end) then the message problem is in the network setup (device is not joined).

If you don't hear a beeps when in setup mode and touching a magnet to the active end, then the magnet sensor is broken.

Make sure the device is in setup mode by 8 tapping the push button and hearing the 2 confirming beeps.

A complete list of troubleshooting and additional information is available at: axxind.com/dealers/troubleshooting