

Tilt Sensor

General Information

The Tilt sensor (2GIG-TILT100-345) is designed for use where the tilt status needs to be monitored. A typical application would be on a garage door. Other uses might include, mailbox lid, pet doors, and hinged crawl space doors. Once the sensor is tilted to 45 degrees, the sensor will transmit to the panel. The sensor will also send a restore signal when sensor is returned to less than 45 degrees. The 2GIG-TILT100-345 is equipped with a cover tamper switch and low battery monitoring. If the case of the 2GIG-TILT100-345 is removed for any reason, the radio transmitter will send a tamper alert. Should the battery voltage drop below a prescribed level, the sensor will send a low battery report indicating that the battery requires replacing.

The tilt sensor offers flexible signal transmission options, supporting both encrypted and non-encrypted modes, and is compatible with 2GIG wireless alarm systems.

Box Contents

Verify that the package includes the following:

- (1) 2GIG® Tilt Sensor
- (1) Sensor Backing Plate
- (1) Battery (Installed in Sensor)
- (2) 5/8" Phillips Screws
- (1) Double Stick Tape Strip

Installation Tools Required

- Phillips Screw Driver
- Variable Speed Drill with 1/16" Drill Bit

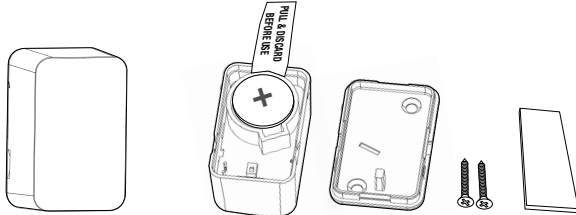


Figure 1. TILT100 Sensor

Figure 2. Tilt Sensor Contents

Programming

Encrypted/Unencrypted Mode Switch

The sensor is capable of transmitting signals in encrypted mode or unencrypted mode. The mode is set through a switch inside the sensor, shown in Figure 2.

By default, the factory setting is non-Encrypted mode. To change to Encryption mode, do the following:

1. With the front cover off, remove the battery from the slot.
2. Locate the dip switch (see Figure 6) and note the switch setting: **ON** indicates *encrypted*, and **1** is *non-encrypted* mode. Move the switch position to **ON** for encrypted mode.
3. Insert the battery back and close the housing.
4. If the sensor was previously learned into a panel in a different mode, update the sensor class field and, if applicable, the sensor equipment code in sensor zone programming.

The following steps describe general guidelines for programming (Learning) the sensor into the alarm control panel memory. For more details, refer to the *2GIG Installation & Programming Instructions*.

1. Set the panel to Sensor Learning mode.
2. Pull out the battery tab insulator and tamper the sensor. You should hear an acknowledging beep from the panel to confirm the sensor has been learned in.

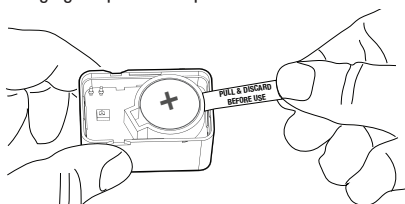


Figure 3. Remove Battery Tab Insulator

Locating the Tilt Sensor

For Sectional Garage Door Installation: The sensor should be mounted near the top of the top panel of the garage door as shown in Figure 4.

Typical Garage Door Tilt Sensor Location

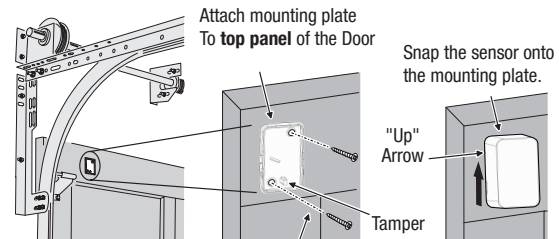


Figure 4. Sensor Location /Garage Door

If the sensor is being used to monitor something other than a garage door opening, mount where convenient and in a vertical position.

Mounting Tilt Sensor Base

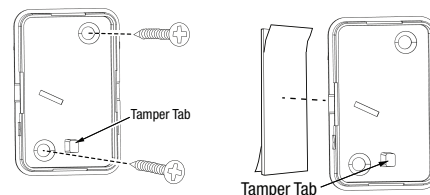


Figure 5. Mounting Methods for Sensor Base

Choose a mounting option to mount the sensor base. Both screws and double-stick tape are provided with the sensor.

NOTE: Be sure that the Tamper Tab on the Base faces down towards the floor.

Mounting Tilt Sensor

1. Use the Base of the Sensor as a template and mark the mounting holes for drilling or the area where Base will be Double Stick taped.
2. Drill holes and install the screws OR remove backing from the double-stick tape and install Base in place. Snap the sensor cover on to the base, making sure that the Tamper Tab on the base aligns with the Tamper button as shown in Figure 5.

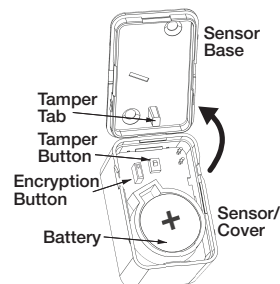


Figure 6. Snap Sensor/Cover onto Sensor Base

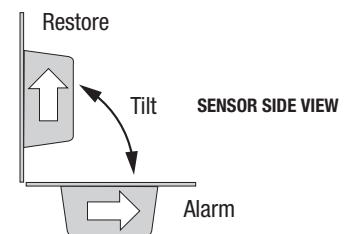


Figure 7. Sensor Alarm Activation

If the Sensor Base and Sensor/Cover are correctly assembled, the arrow on the side of the Sensor Cover should be pointing UP toward the ceiling (See Figure 8).

NOTE: To learn how to program a sensor into the Control Panel, see the Control Panel's *Installation & Programming Guide*.

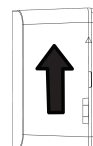


Figure 8. Arrow label points upward

NOTE: Avoid mounting the sensor in areas where it will be exposed to moisture or where the sensor will be exposed to temperatures outside its operating range of 32° to 120° F (0 to 49° C). Avoid mounting the sensor in areas with a large quantity of metal or electrical wiring.

Replacing the Battery

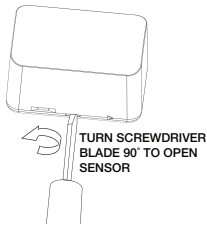


Figure 9. Replacing the Battery

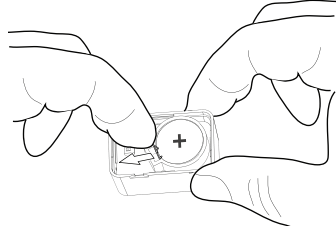


Figure 10. Removing the battery

1. To remove the Sensor/Cover from the base, press a flathead screwdriver into the slot on the sides of the sensor, and turn the screwdriver 90°.
2. Use your finger to slide the battery retention slip away from the battery in the direction shown. The battery will flip up. Remove the battery and dispose of it.

IMPORTANT: Always dispose and/or recycle used batteries in accordance with the hazardous waste recovery and recycling regulations for your location. Your city, state, or country may also require you to comply with additional handling, recycling, and disposal requirements.

3. Insert the replacement battery (CR2450) with the plus (+) sign facing up.
4. Verify programming and RF communication with the panel.
5. Replace the Sensor/Cover onto the Sensor Base being sure that the tamper button is aligned with the tamper tab as shown in Figure 5.

⚠ WARNING

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH** of **CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children.
- Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Only use this product with CR2450 type batteries.
- The nominal battery voltage is 3Vdc.
- This product uses non-rechargeable batteries and are not to be recharged.
- Do not force discharge, recharge, disassemble, incinerate or heat above specified operational temperature. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

Specifications

Typical battery life	10 years
Operating Temperature	2° to 120°F (0° to 49° C)
Operating Rel. Humidity	5 to 85%, non-condensing
Operating Frequency	345MHz
Tilt Switch Angle	45 degrees
Battery (QTY 1)	CR2450 (LITHIUM), 3VDC
Certification	ETL, FCC and IC
Equipment Code	2061 (encrypted), 1061 (unencrypted)
Panel Programming Sensor Loop	Loop 1

Regulatory Information

We, Nice North America LLC of 5919 Sea Otter Place STE 100, Carlsbad, CA 92010, declare under our sole responsibility that the device, 2GIG-TILT100-345 complies with Part 15 of the FCC rules.

FCC & IC Notice

This device complies with Part 15 of the FCC Rules and Industry Canada license exempt standard(s). 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 received that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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 or more 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 to help.



Intertek

Federal Communication Commission (FCC) Radiation Exposure Statement

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

IC RF exposure 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.

Warning

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

* For more warranty and compliance information, visit our website at www.2gig.com.

Limited Warranty

This Nice North America LLC product is warranted against defects in material and workmanship for two (2) years. This warranty extends only to wholesale customers who buy direct from Nice North America LLC or through the Nice North America LLC normal distribution channels. Nice North America LLC does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. There are no obligations or liabilities on the part of Nice North America LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation. All implied warranties for functionality, are valid only until the warranty expires. This Nice North America LLC Warranty is in lieu of all other warranties expressed or implied.



Customer Service

760-438-7000
Monday – Friday, 5 a.m. – 4 p.m. PST
Saturday, 7 a.m. – 3:30 p.m. PST

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