

# 2GIG Wireless Carbon Monoxide Alarm

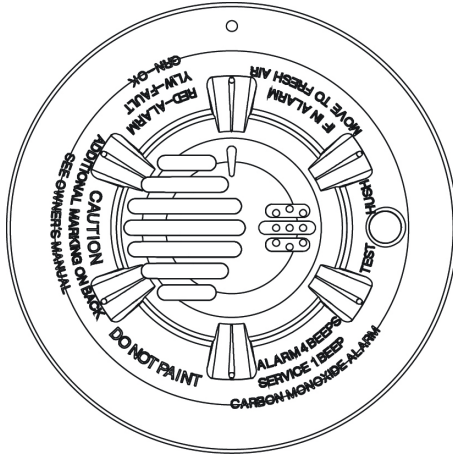
## INSTALL INSTRUCTIONS

The Wireless Carbon Monoxide Alarm, part number 2GIG-CO3-345 is a 3V battery powered wireless detector intended for use with wireless alarm systems. The detector consists of an electrochemical carbon monoxide sensor assembly coupled to a wireless transmitter. The Wireless Carbon Monoxide Alarm communicates with the Control Panel and can send alarm, tamper and battery condition messages to the system's receiver. To know the maximum number of transmitters that can be supported, see the *2GIG Security System Install Guide*.

**IMPORTANT:** This detector must be tested and maintained regularly following NFPA 720 requirements.

This device is designed to protect individuals from the acute effects of carbon monoxide exposure. It will not fully safeguard individuals with specific medical conditions. If in doubt consult a medical practitioner.

**WARNING:** This Carbon Monoxide Alarm is intended for use in ordinary indoor residential areas. It is not designed to measure compliance with Occupational Safety & Health Administration (OSHA) commercial and industrial standards.



### Box Contents

- Wireless Carbon Monoxide Alarm with base
- Pack of screws and fixings
- Stickers as appropriate
- 1 CR123A Panasonic battery

The Wireless Carbon Monoxide Alarm contains a sounder which generates the ANSI S3.41 temporal 4 pattern in an alarm condition (for temporal 4 pattern, see the following table). In alarm, a message is also sent to the Control Panel and the detector's ID is displayed on the screen. During an alarm condition, pressing the detector's hush button will silence the sounder for five minutes. The mounting base installation is simplified by the incorporation of features compatible for both drywall fasteners (not supplied) and other methods.

Tri-colored LED (green, yellow, red) and a sounder on the detector provide local visual and audible indication of the detector's status as listed in the following table. During initial power-up the LED blinks alternately green, yellow then red. It takes about 60 seconds for the detector's CO sensor to stabilize.

After power-up has completed and the detector is functioning normally, the green LED blinks once every 12 seconds.

### Detector Trouble

When the sensor supervision is in trouble condition, the yellow LED blinks once every six seconds and there is a chirp every 45 seconds. After 12 hours the panel will display a loss of supervision message.

### Detector End-of-Life

When the detector has reached the end of its life, the yellow LED blinks once every 23 seconds and there is a chirp every 45 seconds. After 12 hours the panel will display a loss of supervision message. This indicates that the CO sensor inside the detector has passed the end of its life and the detector must be replaced. The detector lifespan is five years from the date of manufacture.

### Low Battery Detection

The Wireless Carbon Monoxide Alarm is powered by a single 3-volt CR123A Panasonic Lithium battery. The detector regularly checks for a low battery. If a low battery is detected, the transmitter sends a low battery message to the Control Panel, which displays the detector's ID at low battery. In addition, the yellow LED of the detector will blink every 12 seconds. The detector's sounder will chirp every 45 seconds (yellow LED continues to blink) until the battery is replaced. Pressing the hush button silences the chirps for 12 hours, if no other trouble conditions exist. Replace the battery when the chirps *begin*. Be sure to replace the battery with a fresh one.

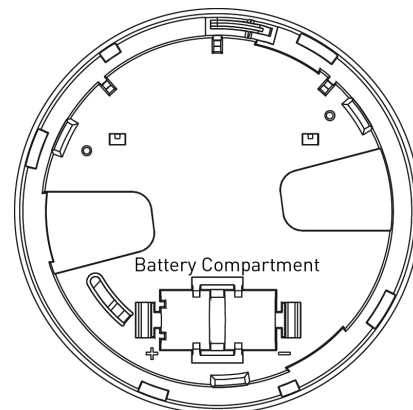
Constant exposures to high or low temperatures or high humidity may reduce battery life!

Unauthorized changes or modifications could void the user's authority to operate the equipment.

Status	LEDs	Sounder <u>(does not pulse the sounder and LED concurrently)</u>	Radio Signaling	2GIG Control Panel Response
Normal	Green flash every 12 seconds	Off	Normal (None)	Normal (None)
Alarm/Test	Red flash every 12 seconds	ANSI S3.41 temporal 4 (press button to hush for 5 minutes)	Alarm	On screen and audible Alarm (user code to silence)
Detector Trouble	Yellow flash every 6 seconds	One 100ms chirp every 45 seconds	Fault	On screen Alert shown (after 12 hours) "Device name--" Loss of Supervision
Low Battery	Yellow flash every 12 seconds	One 100ms chirp every 45 seconds (press button to hush for 12 hours)	Low Battery	On screen Alert shown "Device name--" Battery Low
Detector End-of-Life	Yellow flash every 23 seconds	One 100ms chirp every 45 seconds	None	Normal (None)
Power-Up	Green, Yellow, Red flash sequence every 12 seconds	One 100ms chirp at end of power-up sequence	None	Normal (None)
Tamper	Green, Yellow, Red flash sequence every 12 seconds	Off	Tamper	On screen Alert shown "Device name--" Tamper

## Inserting and Replacing Batteries

- 1 Remove the detector from its mounting base by twisting the detector counterclockwise. Remove and dispose of the battery according to local regulations.
- 2 To ensure proper power-down sequence, wait a minimum of 20 seconds before installing new battery.
- 3 Install a new 3-volt CR123A Panasonic Lithium battery (available from your Panasonic dealer) in the battery compartment. Follow the polarity diagram inside the compartment! If the battery is incorrectly inserted, remove gently with a non-conductive tool and correctly reinsert.
- 4 Reinstall onto the mounting base by turning the detector clockwise.
- 5 After the power-up sequence the green LED should blink about once every 12 seconds to indicate normal operation. If the battery is not installed correctly, the detector will not operate and the battery may be damaged. If the detector does not power-up, check for a fully charged battery.



# PROGRAMMING

The following steps are guidelines for programming (learning) the Wireless Carbon Monoxide Alarm (2GIG-CO3-345) into the 2GIG Control Panel. Scroll between options using the ← and → arrows. Move to the previous or next prompt by pressing the ↑ and ↓ arrows.

- 1 Select RF sensor #(01 to 48). Assign the Wireless Carbon Monoxide Alarm to a new zone.
- 2 Select RF sensor type.  
(14) 24-hour Carbon Monoxide Alarm
- 3 Select RF equipment type.
- 4 Select RF sensor equipment code. Enter 0859 (in Canada) or 0860 (in U.S.A.) for the 2GIG-CO3-345 Alarm.
- 5 Enter RF sensor serial number (7 digits).  
**Manual Entry:** Type in the last 7 digits of the TX ID that is found outside the box or on the bottom of the head unit by removing the base.  
**Auto Entry:** With the panel in Learn-in mode (press **Shift** then **Learn**) cause a tamper on the alarm by twisting the base unit counter-clockwise and removing it. The correct TX ID should appear. Accept the correct TX ID by pressing **ok**.  
*Remember to press the ↓ arrow to continue through the system configuration prompts.*
- 6 Select RF sensor equipment age.  
(0) new (product is new)  
(1) existing (product already exists)
- 7 Select RF sensor loop number (1).
- 8 Select RF sensor 1 dialer delay.  
(0) disabled (there should never be a dialer delay on this type of alarm)
- 9 Construct RF sensor descriptor. Press **Insert** then press any number between 002 and 255 to add a word. For example, if you wanted to name this alarm as "Carbon Monoxide Alarm," press **Insert** then press **032** for **CARBON MONOXIDE**. Press **Insert** then press **005** for **ALARM**.
- 10 Select RF sensor reports (0 to 1).  
(1) enabled (sensor reports to the central station)
- 11 Select RF sensor supervised (0 to 1).  
(1) enabled (sensor reports loss of supervision or low battery)
- 12 Select RF sensor chime (0 to 13).  
(0) disabled (panel will not chime when sensor is activated)
- 13 To program another sensor, click **next**.
- 14 To exit programming, click **skip** then **end** and **exit**. Upon exit, the panel takes a few seconds to reset.

## Installing and Mounting

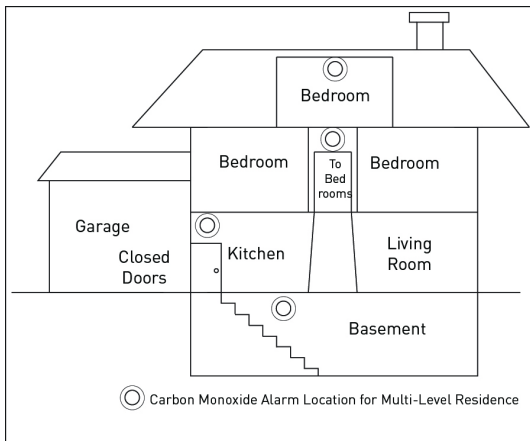
Determine the best location for the detector, one that provides proper carbon monoxide detection.

### Proper Carbon Monoxide Detection Location

Wall-mounted detectors should be positioned at least as high as a light switch, and at least six inches (15cm) from the ceiling. In a ceiling location, the detector should be at least 12 inches (30cm) from any wall.

#### Ideal Locations:

- Within 10 feet (3m) of a sleeping area
- Inside the bedroom if it contains a fuel burning appliance
- On every floor of the building
- Ideally, install in any room that contains a fuel burning appliance
- If the appliance or the room is not normally used, such as the boiler room, the detector should be placed just outside the room so the alarm can be heard more easily



This Wireless Carbon Monoxide Alarm should only be commissioned and installed by a competent engineer.

#### NOT Ideal Locations:

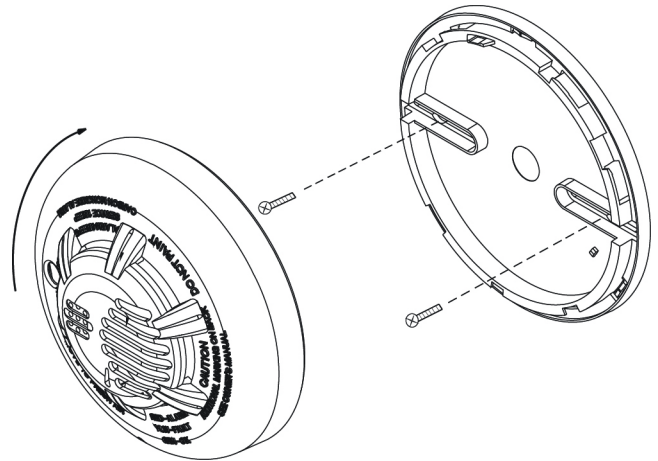
- Directly above a sink, cooker, stove or oven
- Do not locate detector within 5 feet (1.5m) of any cooking appliance
- Next to a door or window that would be affected by drafts, extractor fan or air vent
- Outside
- Do not install in any environment that does not comply with the detector's environmental specifications
- In or below a cupboard
- Where air flow would be obstructed by curtains or furniture
- Where dirt or dust could collect and block the sensor
- Where it could be knocked, damaged, or inadvertently removed

### To Mount the Detector

- 1 See the figure below and install the mounting base on the ceiling or on the wall (if local ordinances permit) using screw locations as required. Use the two screws and anchors provided. Maneuver the base so the screws are at the elbow of the screw slots and secure.
- 2 Fit the detector inside the base by aligning it over the base as shown (detector's alignment notch should be slightly offset from mounting base tamper release tab).
- 3 Test the detector after completing the installation (see Testing the Detector). See the 2GIG Security System Install Guide for additional information concerning the use of wireless devices.

**WARNING:** DO NOT attach the detector to removable ceiling panels.

- 4 Two warning labels are provided in the detector box. Place one next to the CO detector and another near to a source of fresh air where members of the household will gather if alarm signal sounds.



#### WARNING:

Airborne dust particles can enter the detector. 2GIG Technologies recommends the removal of detectors before beginning construction or any other dust producing activity. Carbon monoxide detectors are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.

### Tamper Protection

A tamper alert is displayed at the Control Panel if the built-in tamper switch is removed from its mounting base. The Wireless Carbon Monoxide Alarm includes a tamper resistant feature that prevents removal from the mounting base without the use of a tool. To engage the tamper resistant feature, cut the small plastic tab located on the mounting base and then install the detector.

To remove the detector from the base once it has been made tamper resistant, use appropriate screwdriver to depress the square tamper release tab located on the skirt of the mounting base and turn the detector counterclockwise.

### Testing the Detector

Before testing, notify the central monitoring station that the security system is undergoing tests and maintenance. This action prevents unwanted alarms. Testing the detector activates an alarm and sends an alarm signal to the Control Panel. Also, the test function cannot be used if the detector has a trouble or end-of-life condition.

**Detectors must be tested after installation and following periodic maintenance.**

#### To Test Detector Operation

To test the detector's sounder, LEDs, and transmitter, do the following:

- 1 The test button is located on the detector housing.
- 2 Push and hold the test button for a minimum of 5 seconds. The Control Panel will trigger and the detector will go into alarm. The sounder begins the temporal 4 pattern and the red LED blinks. The security system's Control Panel displays the detector's name in alarm.

## Carbon Monoxide Gas and its Detection

This carbon monoxide detector is designed for indoor use only. Do not expose to rain or moisture. Do not knock or drop the detector. Do not open or tamper with the detector as this could cause malfunction. The detector will not protect against the risk of carbon monoxide poisoning if not properly installed.

**WARNING:** This device will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

This carbon monoxide alarming device is designed to detect carbon monoxide gas from ANY source of combustion. It is NOT designed to detect smoke, or other gases unless the product has been investigated and determined to comply with applicable requirements.

This device should not be installed as a substitute for proper installation, use, and maintenance of fuel burning appliances, including appropriate ventilation and exhaust systems.

**Carbon monoxide gas is a highly poisonous gas which is released when fuels are burned. It is invisible, has no smell and is therefore impossible to detect with the human senses. Under normal conditions in a room where fuel burning appliances are well maintained and correctly ventilated, the amount of carbon monoxide released into the room by appliances should not be dangerous.**



## Conditions Resulting in Dangerous CO Situations

- Excessive spillage or reverse venting of fuel-burning appliances caused by:
  - outdoor ambient conditions, such as wind direction and/or velocity, including high gusts of wind, and insufficient draft in the vent pipes
  - negative pressure differential resulting from the use of exhaust fans
  - simultaneous operation of several fuel-burning appliances competing for limited internal air
  - loose vent pipe connections from fuel-fed appliances,
  - obstructions, or unconventional vent pipe designs that can amplify the above situations
  - poorly designed or maintained chimneys and/or vents
- Extended operation of unvented fuel-burning devices (range, oven, replace, etc.)
- Temperature inversions that trap exhaust gases near the ground
- Car idling in an open or closed attached garage, or near a home

**If you have been exposed to Carbon Monoxide Poisoning, you may be suffering from various symptoms (discuss these symptoms with all of the members of your household):**

### Mild Exposure

- Headache, running nose, sore eyes (often described as 'flu-like' symptoms)

### Medium Exposure

- Dizziness, drowsiness, vomiting

### Extreme Exposure

- Unconsciousness, brain damage, death

Many reported cases of reported Carbon Monoxide Poisoning indicate that while victims are aware they are not well, they become so disoriented that they are unable to save themselves by either exiting the building or calling for assistance.

**Young children and pets may be the first to be affected.**

**WARNING:** Individuals with medical problems should consider using warning devices which provide audible and visual signals for carbon monoxide concentrations under 30 ppm.

## Actuation of this device indicates the presence of Carbon Monoxide (CO) which can KILL YOU

**If the alarm signal sounds, four beeps:**

- Push the **hush/test** button.
- Immediately move to fresh air (outdoors or next to an open window).
- Check that all persons within the area are accounted for.
- Do not re-enter the premises (or move away from the open window until the emergency service responders have arrived, the premises have been aired out, and your alarm remains in normal condition.
- Call emergency services, the fire department, or 911.
- If the service signal sounds, one chirp, then check the service section to try and correct.
- After following steps 1-6, if your alarm reactivates within a 24-hour period, repeat steps 1-6 and call your local qualified technician to investigate for sources of CO from fuel burning equipment and appliances and inspect for proper operation of this CO detector. If problems are identified during this inspection, have the equipment serviced or replaced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturer's instructions, or contact the manufacturers directly for more information about CO safety and this equipment. Make sure that motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

## Replacing the Detector

This detector is manufactured with a long-life carbon monoxide sensor. Over time the sensor will lose sensitivity, and will need to be replaced with a new carbon monoxide detector. The detector's lifespan is 5 years from the date of manufacture.

**NOTE:** When the detector is removed from its base, a Tamper message is sent to the central monitoring station. The detector also causes a trouble condition when it has reached the end of its life. If this occurs, it is time to replace the detector.

Before replacing the detector, notify the central monitoring station that maintenance is being performed and that the system will be temporarily out of service. From the Control Panel, disable the zone or system undergoing maintenance to prevent any unwanted alarms. Dispose of the detector in accordance with any local regulations.

**IMPORTANT:** The Replacement Date that appears on the device is the date beyond which the device may no longer detect carbon monoxide accurately and should be immediately replaced.

The installation, operation testing and maintenance of the Wireless Carbon Monoxide Alarm is different than smoke detectors. Per NFPA 720 section 5.3.7.2 the detector shall not be connected to a zone that signals a fire condition (i.e. smoke detector/alarm zones). Therefore, the Wireless Carbon Monoxide Alarm must be programmed as a non-fire zone. See step 2 under **Programming** for the correct Carbon Monoxide zone type to program.

## Specifications

Power Source	One 3-volt CR123A Panasonic Lithium battery
Audible Signal (temp 4 tone)	85 dBA min. in alarm at 10 ft. (3m)
Operating Current	10 µA
Temperature Range	40° F (4.4° C) to 100° F (37.8° C)
Operating Humidity Range	15% to 95% Relative Humidity, non-condensing
Agency Listings	UL Standard 2075, UL 2034 and CSA 6.19-01

## Regulatory Compliance

This device complies with Part 15 of the FCC's Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- 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 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 for help.

This product complies with FCC radiation exposure limits for an uncontrolled environment. Avoid operating this product at a distance less than 20 cm from user.

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

## Limited Warranty

This 2GIG Technologies product is warranted against defects in material and workmanship for 2 years. This warranty extends only to wholesale customers who buy direct from 2GIG Technologies or through 2GIG Technologies' normal distribution channels. 2GIG Technologies 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 2GIG Technologies 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 2GIG Technologies Warranty is in lieu of all other warranties expressed or implied.

### For technical support in the USA and Canada:

855-2GIG-TECH (855-244-4832)

Email: techsupport@2gig.com

Internet: dealer.2gig.com

Visit web site for technical support hours of operation

### For technical support outside of the USA and Canada:

Contact your regional distributor

Visit dealer.2gig.com for a list of distributors in your region

PN: 39214-596 Rev. B

