

# 2GIG-SMKT2-345



## WIRELESS PHOTOELECTRIC SMOKE ALARM

### Installation Instructions



#### DESCRIPTION

The 2GIG-SMKT2-345 is a photoelectric smoke alarm with a built-in transmitter designed for use with the 2GIG-CNTRL-345 security system. When smoke is detected, the alarm sounds a loud local alarm. Twenty seconds after the local alarm sounds, the built-in transmitter sends a digitally coded wireless signal to the Control Panel. The wireless signal will be repeated every 20 seconds as long as smoke is still present.

In addition to the photoelectric detector, the unit contains an integrated fixed 135° temperature and rate-of-rise heat sensor that will send an alarm signal based on temperature detected.

#### BUILT-IN WIRELESS TRANSMITTER

The smoke alarm can send three different wireless signals to the alarm Control Panel: alarm, low battery, and status.

Every hour, the smoke alarm sends a status transmission to the Control Panel. The hourly signal updates the Control Panel with the smoke alarm's condition. By monitoring status transmissions, the Control Panel can determine that the smoke alarm is still operational in the installation and if it has a low battery.

**The Control Panel must be programmed to the transmitter's serial number before system testing and operation.** Refer to the Control Panel's instructions for details on programming.

#### INSTALLATION

1. Slide the battery compartment cover away from the unit to unsnap it and lift it off. See Figure 2.
2. Observing proper polarity, insert the two 3V lithium batteries supplied into the alarm battery compartment and replace the battery cover.
3. Remove the red plastic dust cover from the unit.
4. Refer to Page 3 for selecting a proper location for the smoke alarm.
5. Using the two screws and anchors provided, mount the base.
6. Attach the unit to the base as follows:
  - Line up the raised alignment tab on the lip of the unit with the alignment arrow on the base. See Figure 3.
  - Insert the unit into the base and turn clockwise approximately 15 degrees. It should snap firmly into place.
  - **IMPORTANT: The unit cannot be attached to the base if no batteries are installed.**

#### PROGRAM SMOKE ALARM INTO THE CONTROL PANEL

Before testing the smoke alarm, the internal wireless transmitter must be programmed into the Control Panel.

1. Refer to the Control Panel's instructions to prepare the receiver to accept the smoke alarm's serial number.
2. Press the smoke alarm's TEST/SILENCE button for 4 seconds. The smoke alarm will perform a sounder test, a sensitivity test, and send a test signal to the Control Panel.
3. Verify that the signal was received by the Control Panel and that the sensor was entered into the system.
4. Exit Control Panel programming before testing the smoke alarm.

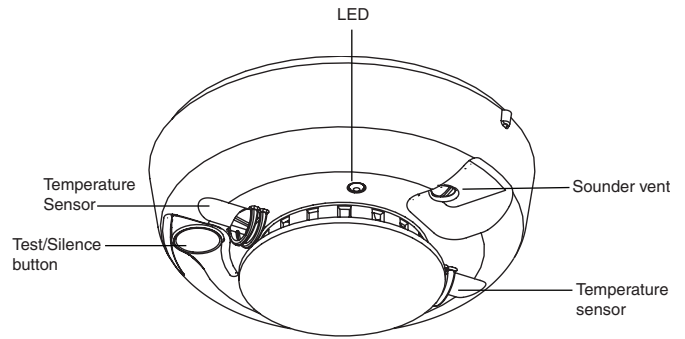


Figure 1. Smoke Alarm Features

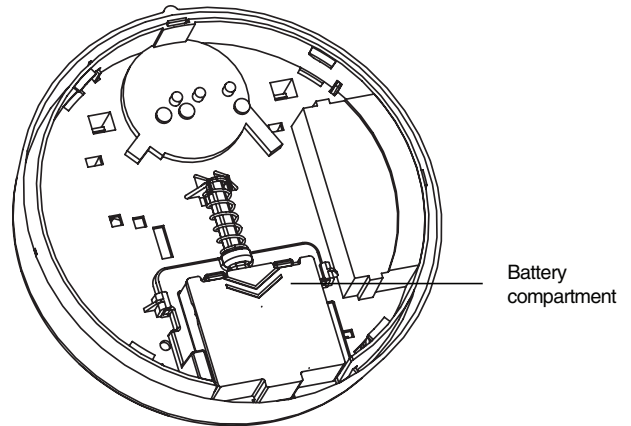


Figure 2. Battery Compartment

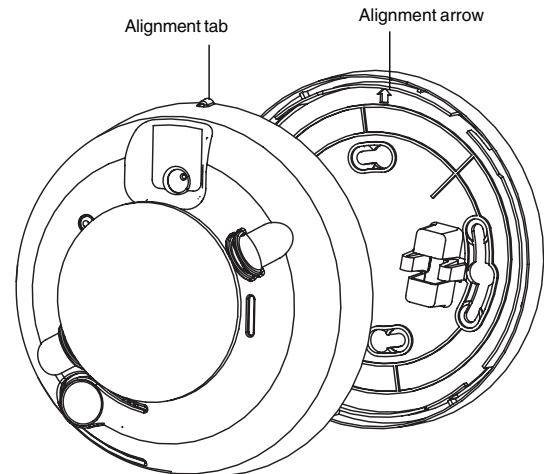


Figure 3. Smoke Alarm-to-Base Alignment

#### SMOKE TEST

- Units should be tested in place annually using one of the following methods:
- A. Use Smoke! in a can® and follow directions on the can.
  - B. Hold a smoldering punk or cotton wick close to the unit and gently direct the smoke into the smoke entry openings for 20 seconds or until an alarm is indicated.

The smoke alarm LED should stay on and the sounder should emit a temporal three pattern, and an alarm should be indicated at the Control Panel. Disarm the system to reset the Control Panel alarm. **Be sure to extinguish the smoke source after testing!**

#### SILENCE THE ALARM

Press the TEST/SILENCE button to silence the sounder during an alarm. After a few minutes, the sounder and alarm resume if smoke is still present.

## SENSITIVITY TEST

1. Press and hold the TEST/SILENCE button for 4 seconds. Once the test starts, the smoke alarm LED flashes 1 to 9 times.
2. Count the number of LED flashes and use the following table to determine if any action is necessary.

FLASHES	INDICATION	ACTION
0-1	Unserviceable hardware fault	Reset and rerun sensitivity test. If the error persists, replace the unit.
2-3	Unit is becoming insensitive	Clean and reset the unit. Rerun sensitivity test. If the error persists, replace the unit.
4-7	Unit is within normal sensitivity range	No action required
8-9	Unit is becoming too sensitive	Verify that the optical chamber is snapped down securely. Clean the unit and replace the optical chamber.

After the LED flashes, if the sensitivity is within limits and all other tests pass, the unit goes into alarm and resets after 7 seconds. If the sensitivity is not within limits, or an unserviceable hardware fault has been detected, the unit LED extinguishes until the unit is serviced.

## LED FUNCTIONS

**Flashing** — Flashes every 9 seconds to indicate normal operation.

**On** — Detects smoke

**Off** — Trouble or maintenance is required.

## WHEN TO REPLACE THE BATTERIES

When the batteries are low, the unit extinguishes its LED and chirps every 45 seconds until the batteries are replaced. The low battery trouble chirps can be silenced for 24 hours by pressing the TEST/SILENCE button. Battery life is a minimum of one year, and varies depending on how often the unit is tested.

## REPLACING THE BATTERIES

Use only 3V lithium batteries listed on the battery compartment cover.

1. Remove the unit from the mounting base, grasp the unit and turn it counterclockwise approximately 15 degrees.
2. Slide the battery compartment cover away from the smoke alarm to unsnap it and lift it off. See Figure 2.
3. Remove the batteries and dispose of them properly.
4. Observing correct polarity, insert two new 3V lithium batteries into the battery compartment and replace the cover.
5. Reattach the unit to the mounting base. See *Installation*, Step 6.
6. Test the system.

## CLEANING

Clean the cover with a dry or damp (water) cloth as needed to keep it free from dust and dirt.

When necessary, clean the interior and **replace** the optical chamber (part number ??????) as follows:

1. To remove the unit from the mounting base, grasp the unit and turn it counterclockwise approximately 15 degrees.
2. Remove the batteries.
3. Slide a flat-blade screwdriver in the slot on the alarm cap and gently push the handle down to pry the alarm cap up and off. See Figure 4.
4. Squeeze the optical chamber where indicated and pull it up and away from the optical base and discard. See Figure 5.
5. Blow out or use a soft-bristled brush to remove all dust and dirt from the optical base.
6. Line the new smoke chamber up with the optical base by lining up the arrows on the optical chamber to the latches on the optical base. Ensure that the LED cavity in the optical chamber is above the LED and snap the optical chamber down into place.
7. To replace the alarm cap as follows:
  - Line the alarm cap up with the unit.
  - Insert the alarm cap into the unit and turn clockwise approximately 15 degrees. It should snap firmly into place.

8. Observing proper polarity, replace the batteries and the battery compartment cover.
9. Reattach the unit to its mounting base. See *Installation*, Step 6.
10. Test the unit sensitivity.

## MAINTENANCE

The units are designed for easy field service and maintenance. When installed and used properly, they require minimal maintenance.

**The unit should be tested weekly.**

When a unit requires maintenance, it extinguishes its LED and stops sending supervisory signals to the alarm Control Panel.

If the Control Panel indicates supervisory trouble for the smoke alarm, perform the sensitivity test and follow the recommended actions.

## SPECIFICATIONS

Voltage	3VDC
Typical average standby current	35µA
Typical test current	2mA
Typical alarm current	70mA
Battery type	3V lithium, Duracell® 123, Panasonic® CR123A, Sanyo® 123A
Low battery threshold	2.70V causes low battery signal
Sounder	85dBa at 10' temporal pattern
Low battery beep rate	1 every 45 sec.
Sensitivity	2.2% ± 1.3% / ft.
Operating temperature	40°-100°F (4.4°-37.8°C)
Operating humidity range	0-95% non-condensing
Color	White
Alarm dimensions	5.6" x 2.4" (14.2 cm x 6.1cm)
Base dimensions	5.4" x 0.46" (13.7 cm x 1.17cm)
Drift compensation adjustment	0.5% / ft. max.
Heat detector specifications	
Rate-of-rise	15°F/min > 105°F (8.3°C/min > 40.6°C)
Fixed	135°F ± 5°F (57.2°C ± 2.8°C)
Listings	ETL, UL217, CSFM

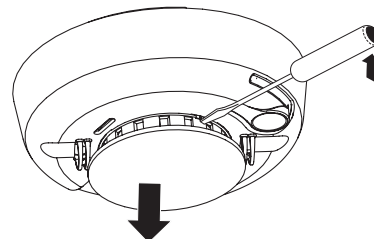


Figure 4. Removing the Smoke Alarm Cap

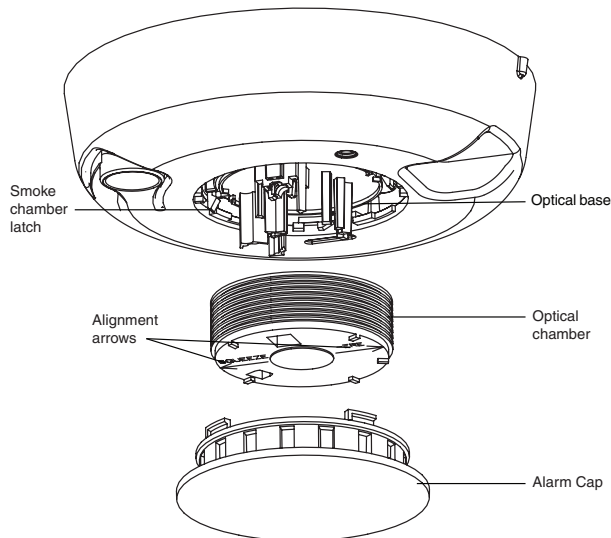


Figure 5. Smoke Alarm Parts

**SELECTING A LOCATION**

Selecting a suitable location is critical to the operation of smoke alarms. This equipment should be installed in accordance with National Fire Protection Association's (NFPA) Standard 72 (see Figure 6).

**A-11-8.3a Where to Locate the Required Smoke Alarms in Existing Construction.**

The major threat from fire in a family living unit occurs at night when everyone is asleep. The principal threat to persons in sleeping areas comes from fires in the remainder of the unit. Therefore, a smoke alarm(s) is best located between the bedroom areas and the rest of the unit. In units with only one bedroom area on one floor, the smoke alarm(s) should be located as shown in Figure 6A.

In family living units with more than one bedroom area or with more than one floor, more than one smoke alarm is required, as shown in Figure 6B.

In addition to smoke alarms outside of the sleeping areas, the installation of a smoke alarm on each additional story of the family living unit, including the basement, is required. These installations are shown in Figure 6C. The living area smoke alarm should be installed in the living room or near the stairway to the upper level, or in both locations. The basement smoke alarm should be installed in close proximity to the stairway leading to the floor above. Where installed on an open-joisted ceiling, the alarm should be placed on the bottom of the joists. The alarm should be positioned relative to the stairway to intercept smoke coming from a fire in the basement before smoke enters the stairway.

**Where to Locate the Required Smoke Alarms in New Construction.**

All of the smoke alarms specified for existing construction are required and, in addition, a smoke alarm is required in each bedroom.

**Are More Smoke Alarms Desirable?**

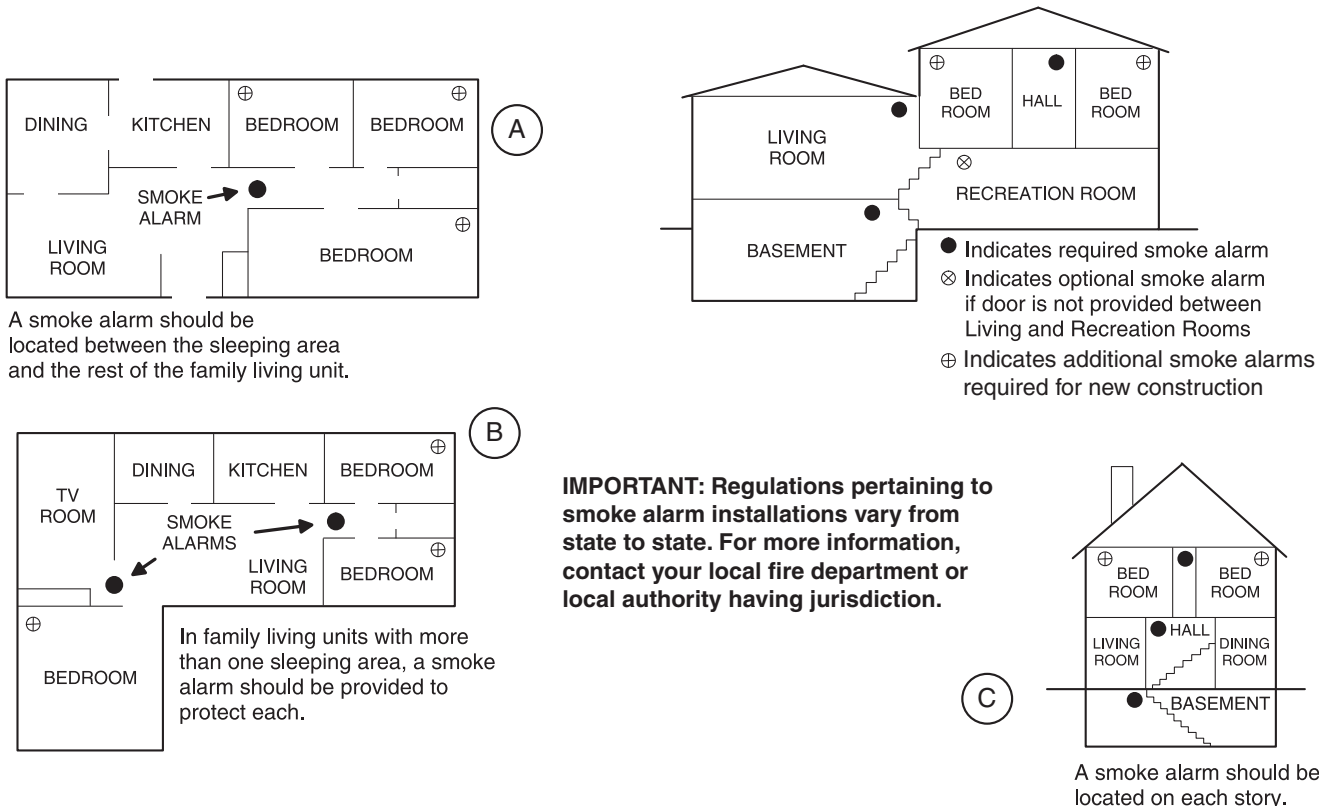
The required number of smoke alarms might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke alarms. For this reason, it is recommended that the householder consider the use of additional smoke alarms for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke alarms. The installation of smoke alarms in kitchens, attics (finished or unfinished), or garages is not normally recommended, as these locations occasionally experience conditions that can result in improper operation.

Since regulations pertaining to smoke alarm/detector installation vary from state to state, contact the authority having jurisdiction (AHJ). Where public safety is primary, the AHJ may be federal, state, local, or other regional department or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor or health department, building official, electrical inspector, or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the AHJ. In some cases, the property owner or their designated agent assumes the role of the AHJ. At government installations, the commanding officer or department official may be the AHJ.

In addition to NFPA 72, use the following location guidelines to optimize performance and reduce the chance of false alarms from the alarm:

- Locate ceiling-mounted smoke alarms in the center of a room or hallway at least 4 inches (10cm) from any walls or partitions.
- Locate wall-mounted smoke alarms so the top of the alarm is 4 to 12 inches (10 to 31cm) below the ceiling.
- Locate in a suitable environment as follows:
  - Temperature between 40°F (4.4°C) and 100°F (37.8°C)
  - Humidity between 0 and 95% non-condensing
- Locate away from air conditioners, heating registers, and any other ventilation source that may interfere with smoke entering the alarm.
- Mount smoke alarms on a firm permanent surface.
- Locate away from large metallic objects to reduce shielding of the wireless transmitter's signal.

**Smoke alarms are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.**



**Figure 6. Smoke Alarm Placement**

## **WARNING! LIMITATIONS OF SMOKE ALARMS**

Wireless smoke alarms are very reliable, but may not work under all conditions. No fire alarm provides total protection of life or property. Smoke alarms are not a substitute for life insurance.

**Smoke alarms require a source of power to work.** This smoke alarm will not operate and the alarm will not sound if batteries are dead or not installed properly.

**Smoke alarms may not be heard.** A sound sleeper or someone who has taken drugs or alcohol may not awaken if the alarm is installed outside a bedroom. Closed or partially closed doors and distance can block sound. This alarm is not designed for the hearing impaired.

**Smoke alarms may not always activate and provide warning early enough.** Smoke alarms only activate when enough smoke reaches the alarm. If a fire starts in a chimney, wall, roof, on the other side of closed doors, or on a different level of the property, enough smoke may not reach the alarm for it to alarm.

Smoke alarms are a significant help in reducing loss, injury and even death. However, no matter how good a detection device is, nothing works perfectly under every circumstance and we must warn you that you cannot expect a smoke alarm to ensure that you will never suffer any damage or injury.

Current studies have shown smoke alarms may not awaken all sleeping individuals. It is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.

## **FIRE PREVENTION AND ESCAPE**

The purpose of an early warning smoke alarm is to detect the presence of fire in its early stages and sound an alarm giving the occupants time to exit the premises safely.

### **AVOID FIRE HAZARDS**

No detection device can protect life in all situations. Therefore, safeguards should be taken to avoid potentially dangerous situations as follows:

- **Do not** smoke in bed.
- **Do not** leave children home alone.
- **Never** clean with flammable liquids such as gasoline.
- Properly store materials. Use general good housekeeping techniques to keep your home neat and tidy. A cluttered basement, attic, or other storage area is an open invitation to fire.
- Use combustible materials and electrical appliances carefully and only for their intended uses. **Do not** overload electrical outlets
- **Do not** store explosive and/or fast burning materials in your home.
- Even after proper precautions have been taken, fires can start. **Be prepared.**

### **IN CASE OF FIRE**

In the event of a fire:

- Leave immediately. Don't stop to pack or search for valuables.
- In heavy smoke, hold your breath and stay low, crawl if necessary. The clearest air is usually near the floor.
- If you have to go through a closed door, carefully feel the door and door knob to see if undue heat is present. If they seem cool, brace your foot against the bottom of the door with your hip against the door and one hand against the top edge. Open it slightly. If a rush of hot air is felt, slam the door quickly and latch it. Unvented fire tends to build up considerable pressure. Be sure all members of the household realize and understand this danger.
- Use your neighbor's phone or a street fire alarm box to call the fire department. The job of extinguishing the fire should be left to the professionals.

## **BE PREPARED**

Practice the following steps to prepare you and your family in the event of a fire:

- Perform fire drills regularly. Use them to assure recognition of an alarm signal.
- Draw a floor plan and show two exits from each room. It is important that children be instructed carefully, because they tend to hide in times of crisis.
- Establish one meeting place outside the home. Insist that everyone meet there during an alarm. This will eliminate the tragedy of someone reentering the house for a missing member who is actually safe.
- If you have children and/or physically challenged people residing in your household, use window decals to help emergency personnel identify the sleeping quarters of these individuals.

## **WARNING**



Smoke alarms CANNOT provide warnings for fires resulting from explosions, smoking in bed or other furniture, ignition of flammable liquids, vapors and gases, children playing with matches or lighters.

## **LIMITED WARRANTY**

This 2GIG Technologies product is warranted against defects in material and workmanship for two (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, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. **This 2GIG Technologies Warranty is in lieu of all other warranties express or implied.**

## **SERVICING INFORMATION:**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact 2GIG Technologies at 1-866-670-1591 for an RPA# and other important details.

For additional warranty and compliance information, visit our Web site at: [www.2gig.com](http://www.2gig.com)

## **IMPORTANT!!!**

Radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.

- For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

## **FCC COMPLIANCE**

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. (2) This device must accept any interference received, including interference that may cause undesired operation.