



SiXCOMBO

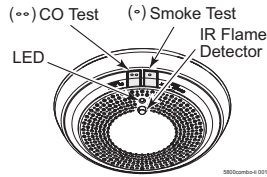
Combination Smoke/Carbon Monoxide (CO) Detector w/Built-in Wireless Transmitter (features voice and 360 degree viewable LED ring)

Installation and Setup Guide

This device is intended for use with Honeywell control panels that support SiX series devices. Before installing detectors, please thoroughly read these installation instructions and read the *Limitations of Fire Alarm Systems* Insert (P/N 800-15144 5/13) and *System Smoke Detectors Application Guide* (P/N SPAG9101 7/12).

FEATURES

- Multi-Criteria Sensing: uses four sensing elements to react faster while minimizing false alarms:
 - Photoelectric smoke sensor detects airborne smoke particles
 - Carbon Monoxide (CO) sensor detects smoldering fires
 - Infrared (IR) sensor measures ambient light and flame signatures, such as flame flicker
 - Thermal detection monitors for dangerous rise in temperature
- Low Temperature sensing: senses ambient temperature and reports if temperature goes below 41 °F (5 °C).
- One Go / All Go: all smoke detectors in the system programmed as one-go-all-go will sound on alarm.
- CO Detector End-of-Life reporting (detector needs replacing)
- Smoke detector maintenance reporting (detector needs cleaning)
- Low Battery Detection



MODE	Status LED (Top)	LED Windows (Side)	Sounder	Speaker
Power Up	Blink Green, every 2 secs	Dark	Silent	Voice welcome, instructions after first time power up or after default
Normal (Standby)	Single Blink Green every 10 secs	Dark	Silent	Silent
Smoke Alarm	Blink Red every 10 secs	Blink red	Temp-3	Voice smoke warning
Thermal Alarm	Blink Red every 10 secs	Blink red	Temp-3	Voice smoke warning
CO Alarm	Blink Red every 10 secs	Blink blue	Temp-4	Voice CO warning
Powered Down	Dark	Dark	Silent	Silent

ENROLLMENT

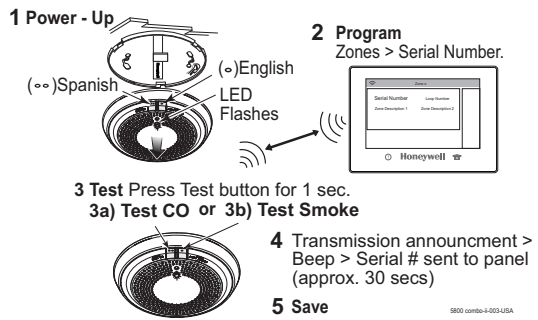
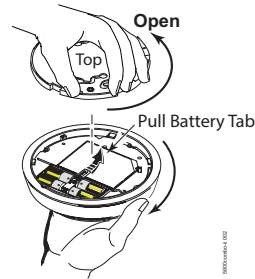
The Smoke, Heat, and Carbon Monoxide (CO) sensors each have unique MAC ID numbers (serial numbers) that are enrolled in separate zones.

- Once enrolled, the device cannot be used with another system until it is removed from the current controller. See the 24-hour Enrollment Deletion section below or the controller's instructions.

Enroll the Device Services (Smoke, Heat, CO)

- Remove the detector from the base plate (tamper switch must be faulted when enrolling).
- Put the control panel in Zone Programming mode.
For Lyric Controller: **Security > installer code > Program > (scroll down) > SiX Programming**
- Pull the battery tab to activate enrollment process (be sure batteries are seated properly to avoid a false low battery condition). If the battery tab has already been removed and the unit is powered up, press either Test switch for less than 3 seconds to activate the enrollment process.
- The device attempts enrollment (green LED flashes about 8 seconds). If successful, the green LED lights steady for 3 seconds and the device announces successful enrollment. If the LED does not light steady, enrollment failed. Retry by pressing either Test switch for less than 3 seconds. All services (Smoke, Heat, and CO) are automatically enrolled in sequential (or next available) zone numbers with the following default attributes:

Zone	Device Type	Zone Response Type
Smoke Det.	Smoke Detector	Fire No Verification
Heat Det.	Heat Sensor	Fire No Verification
CO Det.	Carbon Mono. Det.	Carbon Monoxide



NOTE: Maintenance and CO End-of-Life are automatically enrolled for the respective smoke and CO zones. Upon either of these conditions, Contact ID code E386 "Low Maintenance Smoke" is sent for the respective zone.

Supervision: Detector supervision is factory set for 1 minute and is not programmable.

- To assign zone descriptors for each of the zones and/or change device type or zone response type, select the zone then select **Edit** and make the desired changes. Press **Save** when done.

24-Hour Enrollment Deletion

Use this procedure within 24 hours of initial enrollment to delete this device from the controller. This allows reenrollment in a specific controller in case enrollment in that controller failed (i.e., the device inadvertently enrolled in a different controller). This resets the device to factory default settings and removes the

communication link data in the controller in which it is enrolled, allowing the device to be reenrolled in the desired controller

- Press and hold both the Smoke and CO test switches simultaneously for 5 seconds, then release. The green light flashes rapidly.
- Press and hold both buttons again for one second and release.

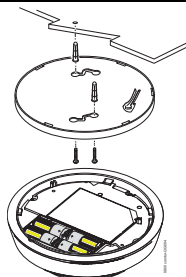
LANGUAGE SELECTION

- Press and hold both the Smoke and CO test switches simultaneously for 5 seconds until Welcome message is announced, then release. The green light flashes rapidly.
- Press the Test button corresponding to the desired language:
English: Press the Smoke (•) test button
Spanish: Press the CO (••) test button

MOUNTING

After enrolling, verify adequate signal strength by conducting Go/No Go tests (see the controller's instructions) with the device in its intended mounting location. Adjust the device location and orientation as necessary.

- Using two supplied screws and anchors, mount the base.
- Attach the smoke detector to the mounting base with a clockwise motion.



- Test each detector as described in the Testing section.
- Confirm all desired signals have been received by the Central Station.

NOTE: NFPA 72 recommends the installation of detectors only after completing construction or any other dust producing activity.

NOTE: This device should not be located within 5 ft (1.5 m) of any cooking appliance.

TESTING

Test communications between the detector and the control panel. The detector mode has two test buttons; one for smoke testing and one for CO testing.

The detector may also be functionally tested using canned smoke and canned CO. If the detector fails any of the test methods, the detector should be replaced.

NOTE: Testing the detector will activate the alarm and send a signal to the panel. **Before testing, notify the proper authorities to avoid any false alarms.**

Smoke Test (Alarm Test)

Press and hold the Smoke Test button for 1 to 2 seconds. The detector will sound and illuminate per Table 2 and send a smoke alarm signal to the control panel (all programmed smoke detector loops are signaled). Verify that the smoke alarm signal was received at the control panel.

Smoke System Test (Functional Smoke Test)

Press and hold the Smoke Test button for 3 to 5 seconds to enter the functional smoke test mode. See *Functional Smoke Test* section below.

Functional Smoke Test

With the detector in smoke system (functional) test mode, spray canned smoke into the detector. The canned smoke that can be used and is approved for test include: Home Safeguard Industries 25S, SDi CHEK02 and CHEK06, SDi SOLOA4, and SDi SMOKESABRE.

1. The detector will sound and illuminate per Table 2 and a smoke alarm signal will be sent to the panel.
2. Verify the smoke alarm signal was received by the control panel.

CO Test (Alarm Test)

Press and hold the CO Test button for 1 to 2 seconds. The control panel should display and sound a CO alarm (all programmed CO detector loops are sent).

CO System Test (Functional CO Test)

Press and hold the CO Test button for 3-5 seconds to enter the functional gas test mode. See *Functional Gas Test* section below.

Functional Gas Test

Solo C6 brand canned CO may be used to verify the detector's ability to sense CO by utilizing the RealTest® feature as follows:

1. Press and hold the CO test button for 3 to 5 seconds. The green LED will start blinking once per second indicating the detector is in RealTest® mode. (If the detector will not go into RealTest® mode, the CO sensor may be in fault or at end-of-life.)
2. While the green LED is blinking once per second, spray a small amount of canned CO directly into the CO gas entry port.
3. Upon successful gas entry and if functioning properly, the detector will go into CO alarm and send an alarm to the control panel.
4. The CO test will automatically clear when the CO clears from the sensor or in 30 seconds if no CO was introduced.

HUSH FEATURE / ALARM SILENCE

If required, the audible alarm for smoke and CO conditions can be silenced for 5 minutes by pushing the "Test/Hush" button. In addition, low chirping can be silenced for 12 hours when the Test/Hush button is pressed.

During a Smoke alarm, if an alarm condition still exists after the 5 minute hush period, the alarm will sound. The hush feature will not operate at levels above 4%/ft smoke concentration.

During a CO alarm, if carbon monoxide is still present after the 5 minute hush period, the alarm will sound. The hush feature will not operate at levels above 350 ppm (parts per million) carbon monoxide.

CO SENSOR END-OF-LIFE FEATURE

When the CO sensor has passed end-of-life, a trouble signal will be sent to the control panel (if programmed). This indicates that the CO sensor inside the detector must be replaced. If unresolved for 30 days, the detector will chirp every 45 seconds. The typical life of the CO sensor is ten years from the date of manufacture. It is recommended to periodically check the "Replace by" date located on the label on the back of the detector head.

TESTING SIGNAL STRENGTH

Perform this test in accordance with NFPA 72 inspection, testing and maintenance requirements to determine a strong communication path with the control panel.

1. Activate the wireless system's GO/NO GO TEST mode.
2. Press the detector's Smoke TEST button (•) for 1-2 seconds. The detector should immediately transmit an alarm signal to the control panel. The built-in horn will start to sound about 2.5 seconds after pressing the button.
3. The wireless system's keypad should emit at least three beeps when the alarm transmission is received and display the transmitting detector's zone number.
4. When the console has received the test signal, the horn will stop and a few seconds later the detector's zone number will clear from the console display.
5. If the console does not respond as noted, and if this is an initial installation, try moving the detector to another location that provides proper reception. Also be sure that the detector has been "enrolled" by the control panel (see Enrollment section). Then, repeat the test.
6. Turn off the system's TEST mode (typically security code + OFF).

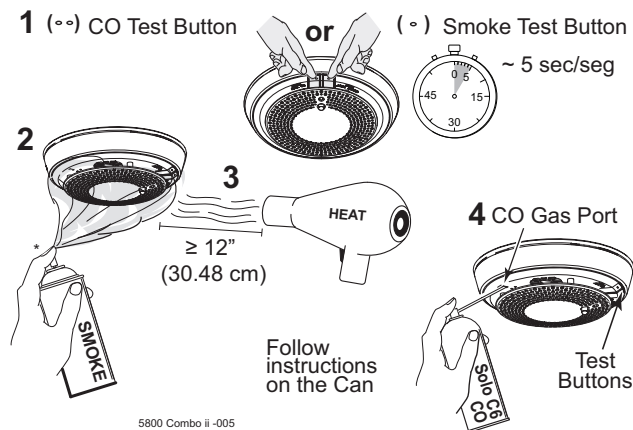


Table 2: LED Indication & Sounder during Test and Trouble

MODE	Status LED (Top)	Side LED Windows	Sounder	Speaker
Smoke Test	Blink Green once every second	Dark	Temp-3	Warning of alarm signal transmission. Voice smoke warning
Smoke System (functional) Test	Blink Red once every 10 secs	Blink once every 10 secs		
RealTest™ Functional CO gas entry test - <i>Waiting for gas entry</i>	Blink Green once per second	Dark	Silent	Voice instructions for testing; warning of alarm signal
RealTest™ Functional CO gas entry test - <i>Upon successful gas entry</i>	Blink Red once every 10 secs	Blink blue every 10 secs	Modified Temp-4	Voice carbon monoxide warning
Low Battery	Blink Amber every 10 secs	Dark	Chirp every 45 secs after 7 days	Voice instructions when chirp is silenced by pressing either test button
Smoke Maintenance	Blink Amber every 5 secs	Dark	Silent	Voice smoke maintenance instructions if either test button is pressed
CO Trouble	Double Blink Amber every 5 secs	Dark	Silent	
CO End of Life - <i>First 29 days</i>	Double Blink Amber every 3 secs	Dark	Silent	Voice end-of-life instructions when either test button is pressed
CO End of Life - <i>after 30 days</i>	Double Blink Amber every 3 secs	Dark	Chirp every 45 secs	Voice end-of-life instructions when either test button is pressed
Power Up	Blink Green, for 30 secs	Dark	Silent	Language set instructions only on first time power-up
Normal (Standby)	Single Blink Green every 10 secs	Dark	Silent	Silent
Freeze Warning (low temp)	Blink Red every 10 secs			

Table 3: Carbon Monoxide Detector: Events & Contact ID Codes

Event	Alpha Keypad	CS Report
CO alarms	CO Alarm	CO alarm (CID 162)
CO test	CO Alarm	CO alarm (CID 162)
Low battery	Lo Bat	RF low-battery (CID 384)
Detector supervision	CO Trouble	RF sensor supervision (CID 381)
Detector end-of-life/trouble	CO Trouble	Sensor trouble - end-of-life (CID 380)
Tamper	disarmed = CO Trouble armed = CO Alarm	RF sensor tamper (CID 383)

LED INDICATORS

The SiXCOMBO has a multi-color top LED:

- Green = Supervisory indication; blinks during power on, reset, and during normal operation
- Amber = Signal maintenance and trouble events
- Red = Alarm condition (either Smoke or CO)

Side LED windows indicate alarms:

- red = smoke
- blue = CO

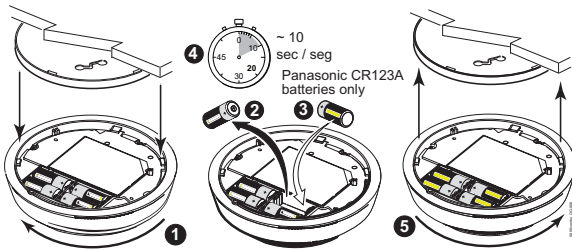
CLEANING

NOTE: Notify the proper authorities when the system will be temporarily out of service.

IMPORTANT: This detector must be tested and maintained regularly following NFPA-72 requirements. The detector should be cleaned at least once a year.

1. Remove the detector from the base plate by turning counterclockwise.
2. Clean the outside casing with a cloth. Ensure that the holes on the front of the alarm are not blocked with dirt and dust. Canned air can be used to remove any dust or debris.
3. Reattach the detector to the base plate by rotating clockwise.
4. Test the detector to insure it is fully functional. (See Testing section).
5. Notify the proper authorities and Central Station when the system is back in service

REPLACING THE BATTERIES



CAUTION: The batteries used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C (212°F) or dispose of in fire. Use only Panasonic CR123A Lithium batteries. Use of other batteries may present a risk of fire or explosion. Keep used batteries away from children. Dispose of used batteries properly.

Remove old batteries. Wait 10 seconds and then replace with four new batteries. To avoid a low battery indication when installing new batteries, all 4 batteries must be installed within 15 seconds of installing the first one. Any low battery condition that may have occurred should clear when the base plate is installed.

NOTE: Constant exposure to high or low temperature or high humidity may reduce battery life.

LIMITED LIFE OF CO SENSOR

This detector is manufactured with a long-life electrochemical carbon monoxide sensor. Over time the sensor will lose sensitivity and will need to be replaced. The life span of the CO sensor is approximately ten years from the date of manufacture. Periodically check the detector’s replacement date. Remove the detector head and refer to the ‘replace by’ sticker placed on the underneath side of the detector. The sticker will indicate the date the detector should be replaced.

Reminder: This detector is also equipped with a feature that will signal the panel once the CO sensor has passed the end of its’ useful life. If this occurs, it is time to replace the detector.

What to do if the detector goes into CO alarm:

If the detector goes into CO alarm (4 beeps), immediately move to a spot where fresh air is available, preferably outdoors, where the air is safe and call your security service provider. Tell your provider the detector alarm status, and that you require professional assistance in ridding your home of the carbon monoxide.

This detector is NOT:

- A substitute for the proper servicing of fuel-burning appliances or the sweeping of chimneys.
- To be used on an intermittent basis or as a portable alarm for the spillage of combustion products from fuel-burning appliances or chimneys.

Carbon monoxide gas is a highly poisonous gas which is released when fuels are burnt. 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.

CAUTIONS:

- This device will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.
- 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.
- Installation of the device should not be used as a substitute for proper installation, use, and maintenance of fuel-burning appliances, including appropriate ventilation and exhaust systems.

MAINTENANCE

Do not paint, and do not use cleaning agents, bleach or polish the detector.

NOTE: Before performing any maintenance on the detector, notify the proper authorities and Central Station that maintenance is being performed and the system will be temporarily out of service. Disable the zone or system undergoing maintenance to prevent any unwanted alarms. Power must be removed from the detector before performing maintenance of any kind.

The SiXCOMBO detector reports maintenance issues to the control panel and communicates them visually and audibly per Table 2.

Trouble feature: When the sensor (supervision) is in a trouble condition (such as a detector that is dirty or CO sensor non-functioning), the detector will send a trouble signal to the control panel. Depending on the issue, the detector must then be serviced or replaced.

NOTE: Smoke detectors are not to be used with detector guards unless the combination is evaluated and found suitable for that purpose.

SYMPTOMS OF CARBON MONOXIDE POISONING

Carbon monoxide bonds to the hemoglobin in the blood and reduces the amount of oxygen being circulated in the body. The following symptoms are examples taken from NFPA 720; they represent approximate values for healthy adults.

Concentration (ppm CO)	Symptoms
200	Mild Headache after 2-3 hours of exposure
400	Headache and nausea after 1-2 hours of exposure
800	Headache, nausea, and dizziness after 45 minutes of exposure; collapse and unconsciousness after 2 hours of exposure

Many cases of reported carbon monoxide poisoning indicate that while victims are aware that they do not feel well, they become so disoriented that they are unable to save themselves by either exiting the building or calling for assistance. Also young children, elderly and pets may be the first to be affected.

CO ALARM ACTIVATION

Per UL standard 2075, the SiXCOMBO detector has been tested to the sensitivity limits defined in UL standard 2034.

CO Alarm Thresholds	
Parts per Million (ppm)	Detector Response Time (Min.)
30+-3ppm	No alarm within 30 days
70+-5ppm	60-240
150+-5ppm	10-50
400+-10ppm	4-15

SPECIFICATIONS

Electrical Specifications

Voltage:.....3 volts DC
 Battery Type:..... CR123A lithium
 Battery Manufacturer:..... Panasonic CR123A only
 Number of Batteries:..... 4
 Sensitivity:..... UL limits .9 to 3.50%/ft / ULC limits .9 to 3.08 %/ft
 Thermal alarm:..... 135° F (57° C)
 Freeze trouble:..... 41° F typical (5° C)
 Audible Signal:..... 85dBA

Physical Specifications

Diameter:6.3 in. Diameter x 1.65 in. Thick
 (16.002 cm x 4.19 cm Thick)
 Weight:..... 14.3 oz (406 g)
 Operating Temperature Range: 32° - 100° F (0° - 38° C)
 Storage Temperature Range: 14 - 158° F (-10 - 70° C)
 Operating Humidity Range:.....20-95% RH

APPROVAL LISTINGS

FCC
Listed to UL 268 & UL 2075.
Listed to CSA 6.19.
Other Standards: RoHS



FEDERAL COMMUNICATIONS COMMISSION STATEMENTS

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

FCC STATEMENT

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

SUPPORT & WARRANTY

For the latest documentation and online support information, please go to:

<https://mywebtech.honeywell.com/>

For the latest warranty information, please go to:

www.honeywell.com/security/hsc/resources/wa.

For patent information, , please go to:

www.honeywell.com/patents



MyWebTech



Warranty



Patents

REFER TO THE INSTALLATION INSTRUCTIONS FOR THE CONTROL WITH WHICH THIS DEVICE IS USED FOR DETAILS REGARDING THE LIMITATIONS OF THE ENTIRE ALARM SYSTEM.

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