Honeywell

5800COMBO - 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 5800 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).

- CO Detector End-of-Life reporting (detector needs replacing)
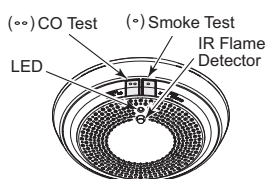- Smoke detector maintenance reporting (detector needs cleaning)
- Low Battery Detection

(°°) CO Test   (°) Smoke Test
LED   IR Flame Detector

5800combo-ii 001

Table 1: Operation Modes

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

POWER UP and LANGUAGE SELECTION

- Remove battery pull tabs. Be sure batteries are seated properly to avoid a low battery condition after 15 seconds.
- Upon power up, Green LED Blinks every 2 secs / Sounder is Silent. After power up, the detector prompts for language selection.
- Select the desired language.
  English: Press the Smoke (•) test button
  Spanish: Press the CO (••) test button

Open
Top
Pull Battery Tab

5800combo-ii 002
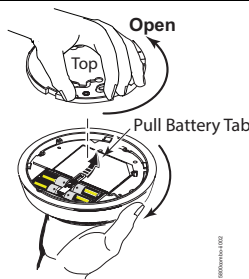
RESETTING THE LANGUAGE

1. Press and hold both the Smoke and CO test switches simultaneously for 10 seconds, then release. The green light flashes rapidly.
2. Press and hold both buttons again for one second and release. The sensor begins speaking a Welcome message.
3. Select the desired language by pressing the corresponding Smoke (English) or CO (Spanish) test button.

ENROLLMENT

IMPORTANT:

The Smoke and Carbon Monoxide (CO) sensors each have unique serial numbers and must be enrolled in separate zones.

Before enrolling the sensor, remove the backplate (tamper switch must be faulted when enrolling).

Enroll the Smoke Sensor

1. Put the control panel in Zone Programming mode.
2. Assign a zone number for the smoke detector zone.
   Loop = 1; Zone Type = 09 (Fire) or 16 (Fire with Verification)
   Input Type = 3 (Supervised RF)
3. When prompted for the serial number, press and release the Smoke Test button for 1 second. The sensor sends two transmissions for enrollment. Alternatively, you can manually enter the smoke sensor serial number found on the unit's label.
4. If Low Temperature reporting is desired, program a separate zone for this smoke detector serial number
   Loop = 3, Input Type = 3 (Supervised RF).

NOTE: For VISTA residential (VISTA-15P/20P/21iP), LYNX Touch (L5210, L7000), and Lyric controls (LCP500-L/LC), maintenance signals are received as a Trouble condition. No zone programming is required. For newer VISTA commercial controls (VISTA-128BPT/250BPT, etc.), maintenance signals are received as appropriate maintenance conditions if enabled in the control. No zone programming is needed.

WARNING: The fire protection zone must always be enrolled as Loop 1. Otherwise, fire alarms will not be reported by the control.

Enroll the CO Sensor

1. With the control panel in Zone Programming mode, assign a zone number for the CO detector zone.
   Loop = 1; Zone Type =14 (CO alarm)
   Input Type = 3 (Supervised RF)

2. When prompted for the serial number, press and release the CO Test button for 1 second. The sensor sends two transmissions for enrollment. Alternatively, you can manually enter the CO sensor serial number, which is the smoke serial number plus 1.

END-OF-LIFE NOTE: For VISTA residential ((VISTA-15P/20P/21iP), LYNX Touch (L5210, L7000), and Lyric controls (LCP500-L/LC), CO End-of-Life signals are received as Trouble conditions. No zone programming is needed. For other control panels (ex. VISTA-128BPT/250BPT, etc.), refer to the control's installation instructions for information about the CO end-of-life zone (if a separate End-of-Life zone is needed, set to loop 2, zone type 8 or 19).

1 Power - Up
(°°) Spanish (°) English

LED Flashes
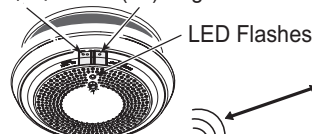
2 Program
Zones > Serial Number.
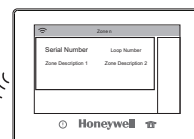
3 Test Press Test button for 1 sec.
3a) Test CO or 3b) Test Smoke

4 Transmission announcment > Beep > Serial # sent to panel (approx. 30 secs)

5 Save

5800 combo-ii-003-USA

MOUNTING

After enrolling and before mounting permanently, conduct Go/No Go test (see controller's instructions) to verify adequate signal strength. Adjust the device location as necessary.

1. Using two supplied screws and anchors, mount the base.
2. Attach the smoke detector to the mounting base with a clockwise motion.
3. Test each detector as described in the Testing section.
4. 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.
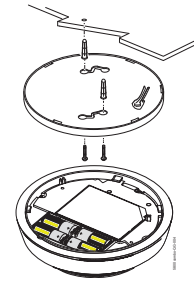
TESTING

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. 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.

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 rapidly 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 rapidly, 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.
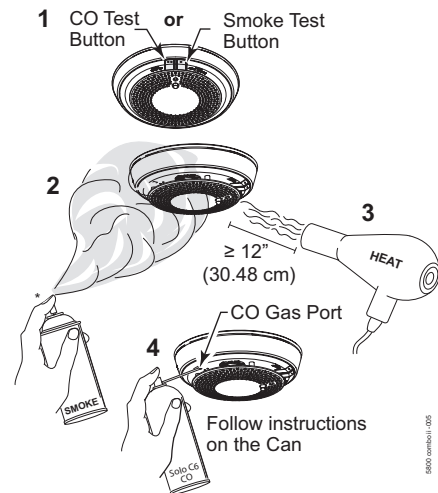

1 CO Test Button **or** Smoke Test Button

2

3 ≥ 12" (30.48 cm) HEAT

4 CO Gas Port

Follow instructions on the Can

Table 2: LED Indication & Sounder during Test and Trouble				
MODE	**Status LED (Top)**	**Side LED Windows**	**Sounder**	**Speaker**
Smoke Test	Blink Red 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 – *Waiting for gas entry*	Blink Green once per second	Dark	Silent	Voice instructions for testing; warning of alarm signal
RealTest™ Functional CO gas entry test -*Upon successful gas entry*	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 hushed 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 – *First 29 days*	Double Blink Amber every 3 secs	Dark	Silent	Voice end-of- life instructions when either test button is pressed
CO End of Life – *after 30 days*	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			

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).

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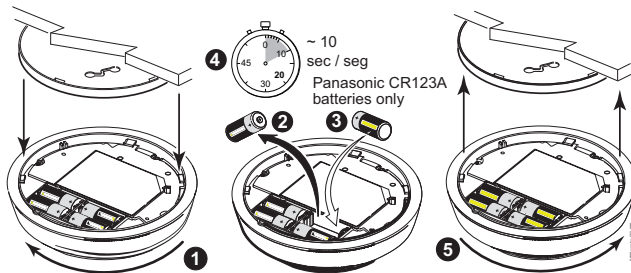
CAUTION: The batteries used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C (212°F) or dispose of in fire. Use only Panasonic CR123A Lithium batteries. Use of other batteries may present a risk of fire or explosion. Keep used batteries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

Table 3: Carbon Monoxide Detector: Events and Their 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	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)

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 head 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 head to the mounting base 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.

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 5800COMBO 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.

LED INDICATORS

The 5800COMBO 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

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 is 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.

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 5800COMBO detector has been tested to the sensitivity limits defined in UL standard 2034.

CO Alarm Thresholds	
Parts per Million	**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: 16.002 cm x 4.19 cm Thick / 6.3 in. Diameter x 1.65 in. Thick
Weight: : 14.3 oz; 406 g
Operating Temperature Range: 32°− 100°F / 0°− 38°C
Storage Temperature Range: -10 - 70°C (14 - 158
 Operating Humidity Range: 20-95% RH

Approval Listings:

FCC / IC
Listed to UL 268 & UL 2075.
Listed to ULC-S531 & CSA 6.19.
Other Standards: RoHS

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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