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

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

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

Enroll the Smoke Sensor
1. Remove the detector from the base plate (tamper switch must be faulted when enrolling).
2. Put the control panel in Zone Programming mode.
3. Assign a zone number for the smoke detector zone.
   - Loop = 1; Zone Type = 09 (Fire) or 16 (Fire with Verification)
   - Input Type = 03 (Supervised RF)
   - 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 Maintenance monitoring is desired:
   VISTA-15P/20P/21P, LYNX Touch, & Lyric: Assign a separate zone number using the Smoke Detector serial number.
   - Loop = 2 (maintenance); Zone Type = choose a zone type based on desired operation (ex.24 hr Trouble, Monitor, or Auxiliary)
   - Input Type = 03 (Supervised RF)
   VISTA-128/250 Series: Enable “Smart Contact” option in zone programming menu for the assigned smoke detector zone.
5. If Low Temperature reporting is desired, program a separate zone for this smoke detector serial number
   - Loop = 3; Zone Type = choose a zone type based on desired operation (ex.24 hr Trouble, Monitor, or Auxiliary)
   - Input Type = 03 (Supervised RF).

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. Remove the detector from the base plate.
2. 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)
   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 (ex. if smoke s/n is 0000781, the CO s/n is 0000782).
3. If End-of-Life monitoring is desired:
   - Loop = 2; Zone Type = choose a zone type based on desired operation (ex.24 hr Trouble or Auxiliary)
   - Input Type = 03 (Supervised RF)

Table 1: Operation Modes

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

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.

Insert (P/N 800-15144 5/13) and System Smoke Detectors Application Guide (P/N SPAG9101 7/12).
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.

NOTE: Detector sounds an alarm when using canned smoke only when in Functional Test mode (canned smoke does not cause alarm sounding when in normal mode).

Table 2: LED Indication & Sounder during Test and Trouble

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

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).

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.

Table 3: Carbon Monoxide Detector: Events and Their ID Codes

<table>
<thead>
<tr>
<th>Event</th>
<th>Alpha Keypad</th>
<th>CS Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO alarms</td>
<td>CO Alarm</td>
<td>CO alarm (CID 162)</td>
</tr>
<tr>
<td>CO test</td>
<td>CO Alarm</td>
<td>CO alarm (CID 162)</td>
</tr>
<tr>
<td>Low battery</td>
<td>Lo Bat</td>
<td>RF low-battery (CID 384)</td>
</tr>
<tr>
<td>detector</td>
<td>CO Trouble</td>
<td>RF sensor supervision (CID 381)</td>
</tr>
<tr>
<td>detector end-of-life/trouble</td>
<td>CO Trouble</td>
<td>sensor trouble - end-of-life (CID 380)</td>
</tr>
<tr>
<td>tamper</td>
<td>disarmed = CO Trouble</td>
<td>RF sensor tamper (CID 383)</td>
</tr>
</tbody>
</table>

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.

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.

<table>
<thead>
<tr>
<th>Concentration (ppm CO)</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>Mild Headache after 2-3 hours of exposure</td>
</tr>
<tr>
<td>400</td>
<td>Headache and nausea after 1-2 hours of exposure</td>
</tr>
<tr>
<td>800</td>
<td>Headache, nausea, and dizziness after 45 minutes of expo-</td>
</tr>
<tr>
<td></td>
<td>sure; collapse and unconsciousness after 2 hours of expo-</td>
</tr>
<tr>
<td></td>
<td>sure</td>
</tr>
</tbody>
</table>

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 580COMBO detector has been tested to the sensitivity limits defined in UL standard 2034.

<table>
<thead>
<tr>
<th>Parts per Million</th>
<th>Detector Response Time (Min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30+</td>
<td>No alarm within 30 days</td>
</tr>
<tr>
<td>70+5pm</td>
<td>60-240</td>
</tr>
<tr>
<td>150+5pm</td>
<td>10-50</td>
</tr>
<tr>
<td>400+10ppm</td>
<td>4-15</td>
</tr>
</tbody>
</table>

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° F)
Operating Humidity Range: 20-95% RH

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

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, see www.honeywell.com/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.