1184 Wireless Carbon Monoxide Detector

Description

The 1184 is a 3V battery powered wireless carbon monoxide (CO) detector that provides early warning when the electrochemical sensing technology measures carbon monoxide levels in the air.

The detector consists of an electrochemical carbon monoxide sensor assembly coupled with an 1100 Series wireless transmitter and an audible sounder. The transmitter can send alarm, trouble, tamper and low battery condition messages to the alarm panel.

The 1184 is an ideal carbon monoxide detector for difficult to wire locations, applications where room aesthetics are critical or where hazardous materials exist.
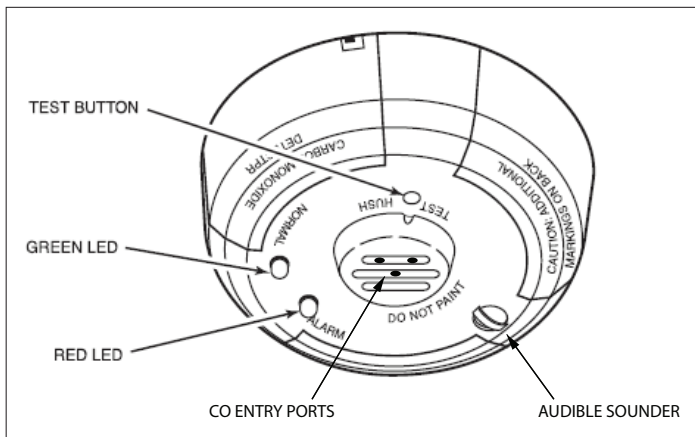

Figure 1: Carbon Monoxide Detector

Compatibility

All DMP 1100 Series Wireless Receivers and Panels

What is Included

The 1184 Wireless Carbon Monoxide Detector includes the following items:
- One 1184 Carbon Monoxide Detector with DMP wireless transmitter installed
- One 3V lithium Model CR123-FIRE battery
- Hardware pack
- Zone name and number label
- Serial number labels

Transmitter Serial Number

For your convenience, an additional pre-printed serial number label is included. Prior to installing the device, record the serial number or place the pre-printed serial number label on the panel programming sheet. This number is required during programming. As needed, use the zone name and number label to identify a specific transmitter.

Programming the Transmitter in the Panel

Locate and record the detector serial number. This number is required during programming. Program the device zone type in **Zone Information** during panel programming. At the Serial Number: prompt, enter the eight-digit serial number. Continue to program the zone as directed in the panel programming guide. In addition to the detector's audible sounder, if an Emergency zone type (EM) is selected, the bell output can also be programmed for a desired indication in Bell Options panel programming.

Note: When a receiver is installed, powered up, or the panel is reset, the supervision time for transmitters is reset. If the receiver has been powered down for more than one hour, wireless transmitters may take up to an additional hour to send a supervision message unless tripped, tampered, or powered up. This operation extends battery life for transmitters. A missing message may display on the keypad until the transmitter sends a supervision message.

Detector Annunciation Notifications

The 1184 provides the following transmitter messages, LED display, and audible annunciations:

Message	Keypad Display	Red LED	Green LED	Sounder
Alarm	ALARM	Blinks once every second	Off	Temporal 4
Low battery	LO BAT	Blinks once every 45 seconds	Off	Chirps after 7 days
Detector head removed	TROUBLE	Blinks once every 5 seconds	Off	One chirp every 45 seconds
Tamper	TAMPER (XR100/XR500 XR150/XR350/XR550) OPEN (XTL/XT30/XT50)	Off	On	Off
Detector End of Life	TROUBLE	Blinks once every 10 seconds	Off	One chirp every 45 seconds

Selecting the Proper Location (LED Survey Operation)

For optimum wireless performance, install the transmitter away from large metal objects. Mounting the transmitter on or near metal surfaces impairs performance. For the LED Survey Operation complete the following steps before proceeding:

1. Since the 1184 transmitter PCB is not visible, use a separate 1100 Series Transmitter for the LED Survey Operation such as an 1107.

2. The survey button is located on the 1107 transmitter PCB and the survey LED can be seen near the survey button location. The transmitter PCB Red Survey LED turns on whenever data is sent to the receiver then immediately turns off when the receiver acknowledgement is received. Pressing the tamper switch is a convenient way to send data to the receiver to confirm operation. When the tamper switch is pressed or released, the LED blinks once to indicate proper operation. When the transmitter does not receive an acknowledgement from the receiver the LED remains on for about 8 seconds to let you know communication is not established. Communication is also faulty when the LED blinks multiple times in quick succession. Relocate the transmitter or receiver until the LED immediately turns off indicating the transmitter and receiver are communicating properly.

3. Also, you can test the communication between the control panel and the detector using the panel walk test feature. See *Testing the Detector Alarm*.

General Location Guidelines

In addition to NFPA 720, use the following location guidelines to optimize performance from the CO detector:

*   Locate ceiling-mounted detectors at least 12 inches from any wall
*   Locate wall-mounted detectors at least as high as the light switch and at least 6 inches from the ceiling.
*   Mount the detector on a firm permanent surface
*   Locate the detector in environmentally controlled areas where the temperature does not exceed 104° F (40° C) or drop below 32° F (0° C).
*   When mounting to suspended ceiling tile, the tile must be secured with the appropriate fastener to prevent tile removal
*   Locate in the vicinity of flame-fueled appliances, but no closer than 10 feet.
*   Keep detectors away from vents and the reach of children and pets.

Installing the Detector

Note: When setting up a wireless system, it is recommended to program zones and connect the wireless receiver before installing batteries in the transmitters.

Install the Mounting Base

1. Using the two screws provided, mount the base in the location previously surveyed for proper communication.

Attaching and Removing the Detector

1. Using the alignment notch on the lip of the mounting base as a guide, align the detector with the alignment tabs.

2. Insert the detector into the mounting base and turn clockwise approximately 15 degrees to snap into place.

Figure 2: Exploded View of CO Detector

To remove the detector from the mounting base, grasp the detector and turn it counterclockwise approximately 15 degrees. The detector snaps off of the mounting base. See Figure 2.
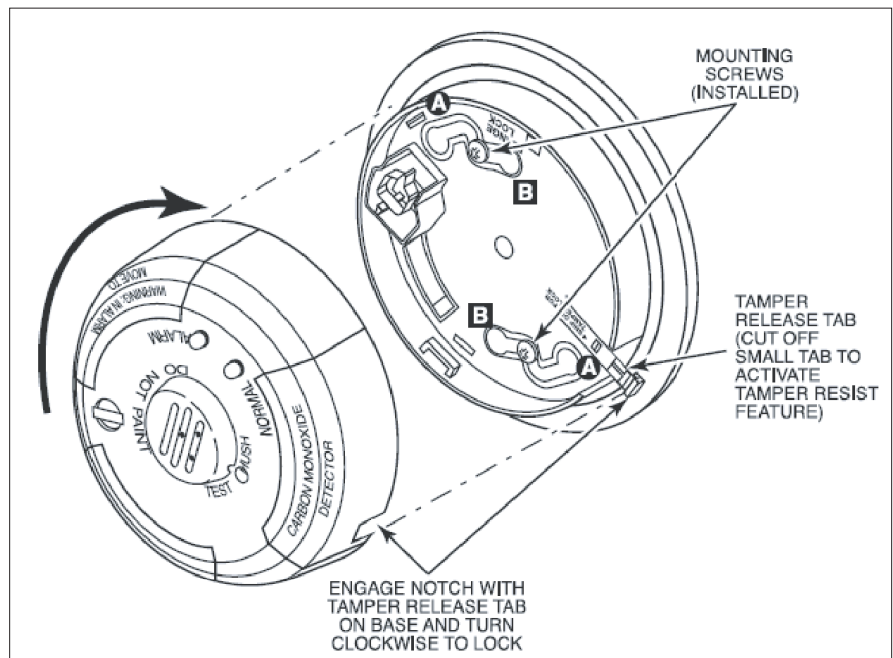
Installing or Replacing the Batteries

Observe polarity when installing the battery. Use only 3.0V lithium batteries, DMP Model CR123-FIRE or Panasonic Model CR123A.

Note: When setting up a wireless system, it is recommended to program zones and connect the receiver before installing batteries in the transmitters.

1. Remove the detector from the mounting base by grasping the detector and turning it counterclockwise approximately 15 degrees. The detector snaps off of the mounting base.
2. The battery is located on the inside of the detector. The detector is supplied with a pre-installed battery. During the initial installation simply remove the battery pull tab to begin operation.
3. If replacing the battery, remove the old battery and dispose of properly.
4. Observing correct polarity, insert the new 3V lithium battery into the battery compartment and replace the cover. Use only new batteries when replacing old ones.
5. Reattach the detector to the mounting base. *See Attaching and Removing the Detector*.
6. Test the detector. *See Testing the Detector*.

Caution: Properly dispose of used batteries. Do not recharge, disassemble, heat above 212°F (100°C), or incinerate. Risk of fire, explosion, and burns.

Testing the Detector Alarm

Wireless Communication

1. To test the detector's alarm, enable Walk Test operation on the control panel. If the system is monitored, the system sends a System Test Begin report (System message S66) to the central station.

    To conduct the Walk Test, reset the control panel by momentarily placing a jumper on J16. From the keypad, enter the code 8144. The keypad displays WALK TEST. Refer to the panel programming guide for complete information on Walk Test operation.
2. Insert a small screwdriver into the Test hole on the front of the detector to activate the test, sound the detector's audible and send a message. Verify that the walk test trip counter increments to indicate a successful test.
3. Select END to stop the Walk Test. When the Walk Test ends or a 20-minute time-out expires, a final Sensor Reset occurs. The System Test End message (System message S67) is sent to the central station along with verify and fail messages for each zone under test. Faulted zones then display on the keypad.

Important: The control panel alarm and all auxiliary functions should be verified for a complete test of the system. See the panel programming guide for additional information.

Detector Sensitivity

1. With a small screwdriver, press and hold the recessed Test switch on the detector for approximately 2 seconds. The detector will temporarily sound an alarm and the red LED will illuminate.
2. Within a few seconds the green LED will start to blink rapidly indicating the detector is in functional test mode awaiting gas entry.
3. Spray a very small amount of Solo brand C6 canned CO, available at most local security distributors or online, into one of the 3 small gas entry holes located on the top center of the detector.
4. Upon successful gas entry and if functioning properly, the detector will alarm by sounding in a Temporal 4 pattern with the red LED blinking. An alarm signal will be sent to the panel providing verification of alarm signal.
5. The alarm condition at the detector will time out in 20 to 60 seconds or when the CO gas has cleared.
6. If gas entry is unsuccessful, the test will time out after 27 seconds.
7. Reset the panel as needed.

Important: Before testing, be sure to notify the central station to avoid false alarms.

Battery Life Expectancy

Typical battery life expectancy for DMP wireless CO detectors is at least 2 years. DMP wireless equipment uses two-way communication to extend battery life.

The following situations can reduce battery life expectancy:
- If a receiver is unplugged or not installed.
- Frequent transmissions, such as how often the detector is tested.
- When installed in extreme hot or cold environments.

FCC Information

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.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

NOTE: The 1100 Series wireless system is a two-way supervised wireless design. It is compliant with FCC rules as they pertain to 900 MHz Spread Spectrum devices. In rare instances it has been observed that certain 900 MHz cordless telephones may occasionally experience a clicking sound on the telephone while in use. If this occurs, it may be resolved by selecting a different channel on the cordless telephone, or replacing the cordless phone with a different brand or model of 900 MHz telephone or other cordless telephone.

To comply with RF exposure requirements, a minimum distance of 20cm must be maintained between the antenna and all persons.

Industry Canada Information

This device complies with Industry Canada Licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Specifications

Battery

Life Expectancy	At least 2 years (normal operation)
3.0V Lithium	CR123-FIRE
See Battery Life Expectancy for full details.	
Low battery	2.7V
Frequency Range	905 - 924 MHz
Dimensions	5.8" x 2.2" (14.3cm x 6.1cm)
Color	White

Patents

U. S. Patent No. 7,239,236

Compatibility

1100D Wireless Receiver
1100DH Wireless High Power Receiver
1100DI Wireless In-line Receiver
1100X Wireless Receiver
1100XH Wireless High Power Receiver
XTL Series Panels with integrated wireless receiver
XTLN / XTLN-WiFi Panel
XT50 Series Panel with integrated wireless receiver
XT30 Series Panel
XR100/XR500 Series Panel
XR150/XR350/XR550 Series Panel

Listings and Approvals

FCC Part 15: CCKPC0104
New York City 1100 Series Wireless (FDNY COA #6167)
Industry Canada: 5251A-PC0104
Underwriters Laboratories (UL) Listed
    ANSI/UL 2075   Gas and Vapor Detectors and Sensors

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