1165/1165H/1165HS Wireless Commercial Smoke Detectors

Description

The Model 1165 Smoke Detector, 1165H Smoke/Heat Detector, and 1165HS Smoke/Heat Detector with Sounder are photo electric, wireless detectors used with the 1100X Series Wireless Receivers.

Features

- Tamper switch sends a trouble signal to the control panel when the detector is removed from the mounting base.
- Optional integrated fixed 135°F temperature and rate of rise heat detector trips an alarm based on temperature detected.

Included Components

- One 1165 Smoke Detector with DMP wireless transmitter installed OR
- One 1165H Smoke/Heat Detector with DMP wireless transmitter installed OR
- One 1165HS Smoke/Heat Detector with Sounder with DMP wireless transmitter installed AND





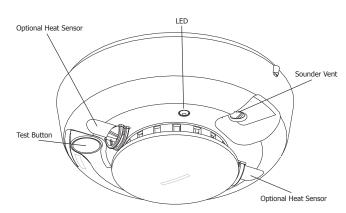


Figure 1: Smoke Detector Features

Programming the Transmitter in the Panel

Program the device as a zone in **Zone Information** during panel programming. At the Serial Number: prompt, enter the eight-digit serial number. Set supervision time to 3. Continue to program the zone as directed in the panel programming guide.

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.

Transmitted Signal Outputs

The smoke detector provides the signals listed in the table:

| Signal | Keypad Display |
|---------------|----------------|
| Alarm | ALARM |
| Alarm restore | OK |
| Low battery | LOBAT |

Selecting the Proper Location (LED Survey Operation)

The 1165/1165H/1165HS Transmitter provides a survey capability to allow one person to confirm transmitter communication with the receiver. The 1165/1165H/1165HS 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 test button is a convenient way to send data to the receiver to confirm operation. The transmitter survey LED can be seen around the test button location. 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. Proper communication between the transmitter and receiver is verified when for each press or release of the test button, the LED blinks immediately on and immediately off. Repeat this test to confirm five separate consecutive LED blinks. Any indication otherwise means proper communication has not been established.



Selecting a suitable location is critical to the operation of smoke detectors. This equipment should be installed in accordance with the National Fire Protection Association's (NFPA) Standard 72. Depending on the application, you may need to reference NFPA 72 or NFPA 101.

Since regulations pertaining to smoke detector installation vary from state to state, contact the authority having jurisdiction (AHJ). Where public safety is primary, the AHJ may be a 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.

Additional NFPA Guidelines, Smoke Detector Limitations, and Fire Prevention information are listed at the end of this document.

General Guidelines

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

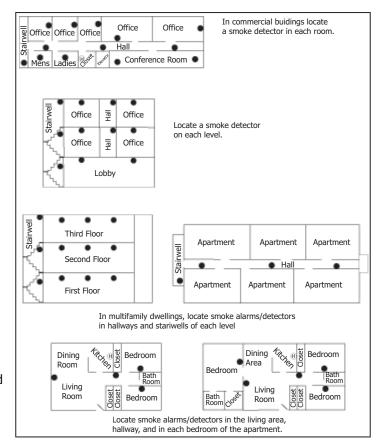


Figure 2: Smoke Detector Placement Locations

- Locate ceiling-mounted smoke detectors in the center of a room or hallway at least 4 inches from any walls or partitions
- Locate wall-mounted smoke detectors so the top of the detector is 4 to 12 inches below the ceiling
- Mount smoke detectors on a firm permanent surface
- Locate the detector in environmentally controlled areas where the temperature range is between 40° and 100° F (4.4° and 37.8° C) and the humidity is between 0 and 90% non condensing
- In rooms with sloped, peaked, or gabled ceilings, locate detectors 3 feet (.9 meters) down or away from the highest point of the ceiling
- When mounting to suspended ceiling tile, the tile must be secured with the appropriate fastener to prevent tile removal

Locations to Avoid

Do not install smoke alarms/detectors:

- In or near areas where combustion particles are normally present such as in kitchens, garages, near furnaces, hot water heaters, or gas space heaters
- On the ceiling in rooms next to kitchens where there is no transom between the kitchen and such rooms
- In damp or very humid areas or next to bathrooms with showers, locate detectors at least 5 feet (1.5 meters) away from bathrooms.
- In very cold or very hot areas
- In dusty, dirty, or insect infested areas
- Away from air conditioners, heating registers, and any other ventilation source that may interfere with smoke entering the detector.
- Near fresh air inlets or returns or excessively drafty areas heating/air conditioning vents, fans, and fresh air intakes can drive smoke away from smoke alarms/detectors
- In dead air spaces at the top of peaked ceilings or in corners where walls and ceiling meet dead air may prevent smoke from reaching a smoke alarm/detector.
- Near fluorescent light fixtures locate smoke alarms/detectors at least 10 feet (3 meters) away from these fixtures.

Installing the Detector

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

Use the following steps to install the detector.

- 1. Slide the battery compartment cover away from the detector to unsnap it and lift it off. See Figure 3.
- 2. Observing proper polarity, insert two 3V lithium batteries into the detector battery compartment. Flip the ribbon over the top of the batteries and replace the battery compartment cover.
- 3. Locate and record the detector serial number. This number is required during programming. See *Programming the Transmitter in the Panel*.
- Remove the red plastic dust cover from the detector. The detector is shipped with a dust cover for protection on construction sites with dusty environments.
- 5. Test the communication between the control panel and the detector before permanently mounting the detector as follows:
 - Hold the detector up where you plan to install it.
 - Press the Test button on the detector for 4 seconds. The detector sends a signal to the control panel.
 - At the control panel, verify the signal was received and the RF signal strength is adequate. If no signal is received or the RF signal is low, relocate the detector and retest.
- 6. Using the two screws and anchors provided, mount the base.
- 7. Line up the raised tab on the lip of the detector with the slot on the lip of the mounting base. See Figure 4.

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

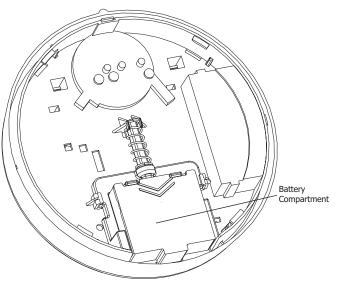


Figure 3: Battery Compartment

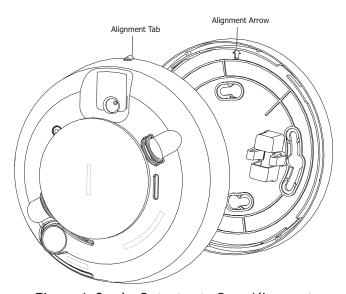


Figure 4: Smoke Detector-to-Base Alignment

Smoke Testing the Smoke Detector

Smoke detectors should be tested in place annually using one of the following methods:

- A. Use DMP Model 526, Smoke! in a can®, a canned aerosol simulated smoke and follow the directions on the can.
- B. Use the following steps to test the detector with smoke:
 - 1. Hold a smoldering punk or cotton wick close to the smoke entry openings.
 - 2. Gently direct the smoke into the detector for 20 seconds or until an alarm is indicated.

Be sure to extinguish the smoke source after testing! The detector LED should stay on and an alarm should be indicated at the control panel. Use the system reset switch to reset the detector.

Testing the Detector Sensitivity

The smoke detector provides a sensitivity level test mode that allows you to check the smoke detector sensitivity using the Test/Silence button and the LED indicator on the detector as follows:

- 1. Press the Test/Silence button on the smoke detector for 2 seconds. Once the test starts, the detector LED flashes one to nine times.
- 2. Count the number of times the LED flashes and use the following table to determine the status of the smoke detector sensitivity and what action to take, if any.

| Flashes | Indication | Action |
|---------|--|--|
| 1 | Unserviceable hardware fault | Rest unit and rerun sensitivity test. If the error persists, replace the unit. |
| 2-3 | Detector is becoming sensitive | Clean the Unit. Reset the unit and rerun sensitivity test. If the error persists, replace the unit. |
| 4-7 | Detector is within normal sensitivity range. | N/A |
| 8-9 | Detector is becoming too sensitive | Verify that the smoke chamber is snapped down securely. Clean the unit and replace the smoke chamber. |

After the flashes, if the sensitivity is within limits and all other tests pass, the detector goes into alarm and resets after 7 seconds.

If the sensitivity is not within limits, or an unserviceable hardware fault has been detected, the smoke detector LED extinguishes until the detector is serviced.

Understanding the LED

The LED on the detector indicates the status of the detector as follows:

FLASHING = Flashes every 8 seconds to indicate normal operation.

ON = Detects smoke.

OFF = Trouble or maintenance is required.

Understanding the Test/Silence Button

The Test/Silence button on the detector performs the following three functions:

Testing = Press the Test/Silence button for 4 seconds. The detector performs a sensitivity test then sends a test signal to the control panel.

Silence alarm = Press to silence the sounder during an alarm. The sounder and alarm do not silence if smoke is still present.

Silence trouble chirp = Press to silence a trouble chirp. The trouble chirp resumes after 24 hours if the trouble condition is not corrected.

Attaching and Removing the Detector

Attach the smoke detector to its mounting base as follows:

- 1. Line up the raised alignment tab on the lip of the smoke detector with arrow on the mounting base. See Figure 4.
- 2. Insert the smoke detector into the base and turn clockwise approximately 15 degrees. It should snap firmly into place.

To remove the detector from the mounting base, grasp the detector and turn it counterclockwise approximately 15 degrees. The detector should snap off of the mounting base. See Figure 5.

Installing or Replacing the Batteries

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

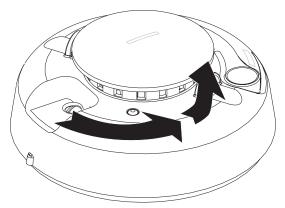


Figure 5: Remove Detector from Base

When the batteries are low, the detector extinguishes its LED and chirps every 30 seconds until the batteries are replaced. The sounder can be silenced for 24 hours by pushing the Test/Silence button. See Figure 1.

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. See Attaching and Removing the Detector.
- 2. Slide the battery compartment cover away from the detector to unsnap it and lift it off. See Figure 3.
- 3. If replacing the batteries, remove the old batteries and dispose of them properly.
- 4. Observing correct polarity, insert two new 3V lithium batteries 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 Smoke 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.

Sensor Reset to Clear LOBAT

When the battery needs to be replaced, a LOBAT message will display on the keypad. Once the battery is replaced, a sensor reset is required at the system keypad to clear the LOBAT message.

- 1. On a 7000/9000 Series Keypad, press and hold "2" for two seconds. On a 7800/9800 Series Keypad press Reset on the carousel menu.
- 2. Enter your user code if required.
- 3. The keypad displays SENSORS OFF followed by SENSORS ON.

Battery Life Expectancy

Typical battery life expectancy for DMP wireless smoke detectors is at least 1 year. 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, transmitters send supervision messages until a receiver returns an acknowledgement.
- Frequent transmissions, such as how often the detector is tested.
- · When installed in extreme hot or cold environments.

The following situation can extend battery life expectancy:

- Extend transmitter supervision time in panel programming.
- Infrequent transmission trips, such as extending the detector test time schedule.

Cleaning the Detector

Clean the detector cover with a dry or damp (water) cloth as needed to keep it free from dust and dirt. When necessary, clean the detector interior and **replace** the smoke chamber as follows:

- 1. Remove the detector from its mounting base. See *Attaching and Removing the Detector.*
- 2. Remove the batteries. See Replacing the Batteries.
- 3. Slide a flat-blade screwdriver in the slot on the detector cap and gently push the handle down to pry the cap up and off. See Figure 6.
- 4. Press the sides of the smoke chamber in where indicated by the alignment arrows. Pull the chamber up and away from the detector and discard. See Figure 7.

 Note: The part number of the smoke chamber is UTC211.
- 5. Blow out or use a soft-bristled brush to remove dust and dirt from the smoke chamber base.
- 6. Line the new smoke chamber up with the smoke chamber base by lining up the arrows on the smoke chamber to the latches on the optical base and snap down into place.
- 7. Replace the detector cap as follows:
 - Line the cap up with the smoke detector.
 - Insert the cap into the smoke detector and turn clockwise approximately 15 degrees. It should snap firmly into place
- 8. Observing correct polarity, insert two new 3V lithium batteries into the battery compartment and replace the cover.
- 9. Reattach the detector to its mounting base. See *Attaching and Removing the Detector*.
- 10. Test the detector sensitivity. See *Testing the Detector Sensitivity*.

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

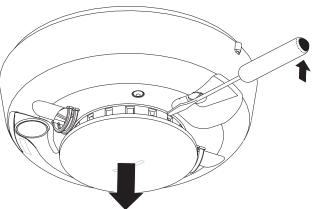


Figure 6: Remove Detector Cap

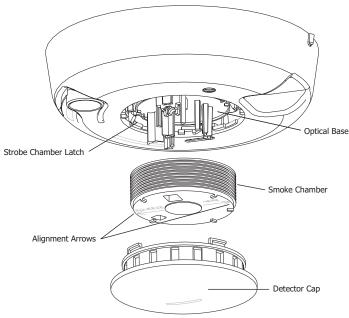


Figure 7: Detector Parts

Maintaining the Detector

The 1165/1165H/1165HS detectors are designed for easy field service and maintenance. When installed and used properly, they require minimal maintenance. The smoke detector should be functionally tested per NFPA 72 2013 Table 14.4.3.2 for system type smoke detectors. See *Testing the Detector Sensitivity* and *Smoke Testing the Smoke Detector*. When an 1165/1165H/1165HS detector requires maintenance, it extinguishes its LED.

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.

NFPA 72 Guidelines

Total (Complete) Coverage. If required, total coverage shall include all rooms, halls, storage areas, basements, attics, lofts, spaces above suspended ceilings, and other subdivisions and accessible spaces; and the inside of all closets, elevator shafts, enclosed stairways, dumbwaiter shafts, and chutes. Inaccessible areas shall not be required to be protected by detectors. (For exceptions, refer to NFPA 72.)

Partial Coverage. If required, partial detection systems shall be provided in all common areas and work spaces, such as corridors, lobbies, storage rooms, equipment rooms, and other tenantless spaces in those environments suitable for proper detector operation in accordance with this code.

Selective Coverage. Where codes, standards, laws, or authorities having jurisdiction require the protection of selected areas only, the specified areas shall be protected in accordance with this code.

Supplementary (Non required) Coverage. Where installed, detection that is not required by an applicable law, code, or standard, whether total (complete), partial, or selective coverage, shall conform to the requirements of this code. (For exceptions, refer to NFPA 72 Spacing Requirements.)

Where non required detection devices are installed for a specific hazard, additional non required detection devices shall not be required to be installed throughout an entire room or building.

Heat-Sensing Fire Detectors. Heat-sensing fire detectors shall be installed in all areas where required by the NFPA codes and standards or by the authority having jurisdiction.

Detection in New Apartment Buildings. Approved, single-station smoke alarms shall be installed in accordance with 7-6.2.10 of NFPA 101 outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit including basements. (For exceptions, refer to this section of NFPA 72.)

Detection in Existing Apartment Buildings. Approved, single-station smoke alarms shall be installed in accordance with 7-6.2.10 of NFPA 101 outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit including basements. (For exceptions, refer to this section of NFPA 72.)

WARNING! Limitations of Smoke Detectors

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.

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, you should do the following:

- 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 realizes and understands 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.

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.

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 1 year

(normal operation)

3.0V Lithium Panasonic CR123A or

DMP CR123-Fire

See Battery Life Expectancy for full details.

Low battery

Threshold signal 2.70V

Beep rate 1 every 30 sec. ± 2 sec.

Sounder pattern

Temporal 85dBa at 10' Sensitivity 2.3% $\pm 0.8\%$ Frequency Range 903 - 927 MHz

Dimensions

Detector 5.6" x 2.4"

(14.3cm x 6.1cm)

Base 5.4" x 0.46"

(13.7cm x 0.46cm)

Heat alarm specifications:

Rate-of-rise 15°F/min > 105°F

 $(8.3^{\circ}C/min > 40.6^{\circ}C)$

Fixed $135^{\circ}F \pm 5^{\circ}F$

 $(57.2^{\circ}C \pm 2.8^{\circ}C)$

Drift compensation

adjustment 0.5%/ft. max.

Color White

Compatibility

1100X Wireless Receiver

1100XH Wireless High Power Receiver

Patents

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

Certifications

California State Fire Marshal (CSFM)

FCC Part 15 Registration CCKPC0088

Industry Canada Registration 5251A-PC0088

New York City (FDNY COA #6167)

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