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Smoke and Carbon Monoxide (CO) Alarm Quick Reference Guide

This document has been prepared to summarize the requirements and recommended practices for smoke and carbon monoxide (CO) alarm placement in your home. With the increasing number of smoke and CO alarms available today, fire protection displays at local retailers can leave residents confused about which type or features to purchase. The following outlines what to look for, the common nomenclature and the use of each type of device. Remember that any of these devices and features will help keep your family protected.

The Northville Township Fire Department recommends installing interconnected, smoke alarms in every bedroom, in the hallways outside of sleeping areas, and on every level of the home along with the installation of interconnected CO alarms on every level of the home.

Alarm types

- **Ionization smoke alarms** are more responsive to flaming fires. Normally more common and less expensive than photoelectric alarms. May produce nuisance alarms when installed in kitchens.
- **Photoelectric smoke alarms** are more responsive to smoldering fires. These devices are normally more expensive, respond faster to smoky, smoldering fires and less prone to false alarms.
- **Combination smoke alarms.** Includes both ionization and photoelectric technology in one unit.
- **Carbon monoxide (CO) alarms.** Detect and alert you of a carbon monoxide (CO) leak. Known as the invisible killer, CO is an odorless, colorless, gas that is produced by the incomplete combustion of fuel-fired appliances such as furnaces, dryers, ovens, water heaters, generators and vehicles.
- **Combination smoke and CO alarms.** Includes both smoke and CO detection technology in one unit.

Power type

- Battery operated (requires annual replacement).
- 10 year, sealed unit, lithium ion battery operated. No battery replacement required.
- 120 volt hardwired with battery back-up (replaceable or sealed, 10 year lithium ion).

Interconnectivity

- Hardwired and interconnected (120 volt).
- Wirelessly interconnected (radio frequency).

Where to install

- Every bedroom.
- Hallways outside of each sleeping area.
- Every level of the home including the basement.

DO's

- **DO** read all the manufacturer's recommended instructions.
- **DO** install devices on the ceiling near the bottom of the basement stairs.
- **DO** install an alarm in all areas that someone sleeps including basements, living rooms, etc.
- **DO** install a device near the center of the room so it is close to all areas of the room.
- **DO** mount on the ceiling when possible. Keep devices a minimum of 4" from the side walls.
- **DO** mount the top of the alarm between 4" and 12" from the ceiling when mounted on the wall.
- **DO** install alarms within 3' of the peak on peaked ceilings, but not within 4".
- **DO** purchase a device with a "hush" or silence feature and/or install a photoelectric alarm in kitchen areas as kitchen alarms are more prone to nuisance alarms.

DON'Ts

- **DON'T** install in the garage. Heat detectors may be utilized in this application. See manufacturer.
- **DON'T** install in areas that are below 40°F or greater than 100°F (attics, garages, etc.)
- **DON'T** install in dusty areas.
- **DON'T** install in humid areas (bathrooms, near showers, etc.).
- **DON'T** install alarms within 3' of bathroom doors that have a bathtub or shower.
- **DON'T** install alarms within 3' of ceiling fan blades, forced air ducts, attic fans, etc.

Other available features

- **Deaf or hard-of-hearing.** Alarms for the deaf or hard-of-hearing include strobe lights, low pitched sounds and/or bed shakers that work with existing smoke/CO alarms in your home.
- **Hallway alarms.** Has a bright LED light that helps to light the hallway or escape path.
- **Bedroom.** May include a voice feature that assists in waking up from sleep.
- **Kitchen.** Normally a photoelectric smoke alarm that utilizes a sensing algorithm to detect real fires faster and reduce false alarms. May also include "hush" or silence button.
- **"Hush"/silence button.** A button included on an alarm that may temporarily silence false alarms.
- **Hardwire replacement package.** Includes adapters to connect to the existing wiring harness and connect to the new alarm device.
- **Smart home technology.** There are a variety of products now available that allow you to connect your smoke and/or CO alarm systems to a smart home suite of products. These devices can connect to your Wi-Fi and alert you of an activation via text, email or smartphone app.
- **"Worry-free."** Brand specific name for devices with a sealed, 10 year, lithium-ion battery. These devices do not require annual battery replacement and chirp to notify you when they reach 10 years.

Replacement, testing, and maintenance

- **Replacement.** Replace all alarms that are 10 years old or older.
- **Batteries.** Devices with replaceable batteries should be replaced annually.
- **Testing.** Press the test button monthly to verify the device is operating. Remember that this only tests the audible capacity of the device and not the sensing components.

Tips

- **Front loading battery door.** If you do purchase alarms that require battery replacement, purchase one with a front loading battery door to make replacement easier and safer.
- **Know your limits.** Hire a qualified professional to install hardwired smoke alarms.
- **Ladder safety.** Do not operate on a ladder if you do not feel comfortable doing so. Ask a neighbor, friend or family member to help.
- **Help.** Contact the fire department for assistance before putting yourself in an unsafe situation.

Please visit www.northvillemich.com/fire, www.usfa.fema.gov, and www.nfpa.org/smokealarms for more information. If you have questions, contact us at (248) 348-5807 or via email at thughes@twp.northville.mi.us.