

# Limitations of Fire Alarm System

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Fire Alarm System is a combination of devices like smoke detectors, heat detectors, manual call points, audible warning devices and a fire alarm control panel that can provide early warning of a developing fire. Such system, however, does not assure protection against property damage or loss of life resulting from a fire. The Manufacturer recommends that smoke and/or heat detectors are located throughout a protected premise following the recommendations of the National Fire Protection Association Standard 72 (NFPA 72), manufacturer's recommendations and State, local codes.

PINETREE do not offer any guaranteed protection against fire or other emergency due to a number of reasons, including by not limited to inadequate or improper installation/positioning, sensor limitations, battery performance, wireless signal interruption, inadequate maintenance etc. As a result, PINETREE does not represent that the alarm system and/or the product(s) will prevent personal injury or property, or in all cases provide adequate warning or protection.

Smoke Detectors may not detect smoke in situations where smoke cannot reach the sensing chamber of the detector or when the amount of smoke present may not be adequate to trigger the alarm as the detectors are designed to trigger alarm at various smoke levels.

Heat Detectors will trigger the alarm only when the heat on the sensor of the detector exceeds above the threshold level.

The most common cause of fire alarm malfunction / false alarm is due to inadequate maintenance of the system. To keep the fire alarm system in working order, maintenance is required per the recommended standards of (NFPA 72).

## **NFPA Recommendations:**

The National Fire Protection Association's Standard 74, Section 2-4, reads as follows:

"2-4.1.1: Smoke detectors shall be installed outside each separate sleeping area in the vicinity of the bedrooms and on each additional story of the family living unit including basements and excluding crawl spaces and unfinished attics. The provisions of 2-4.1 represents the minimum number of detectors required by this standard. It is recommended that the householder consider the use of additional smoke or heat detectors for increased protection for those areas separated by a door from the areas protected by the required smoke detectors under 2-4.1.1 above. The recommended additional areas are: living room, dining room, bedroom(s), kitchen, attic (finished or unfinished), furnace room, utility room, basement, integral or attached garage, and hallways not covered under 2-4.1.1 above. However, the use of additional detectors remains the option of the householder. 2-1.1.2.\* For family living units with one or more split levels (i.e. adjacent levels with less than one full storey separation between levels), a smoke detector required by 2-1.1.1 shall suffice for an adjacent lower level, including basements. Exception: Where there is an intervening door between one level and the adjacent lower level, a smoke detector shall be installed on the lower level 2-2\* Alarm Sounding Devices. Each detection device shall cause the operation of an alarm which shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. The tests of audibility levels shall be conducted with all household equipment which may be in operation at night in full operation. Examples of such equipment are window air conditioners and room humidifiers. (See A-2-2 for additional information)."