

PLACEMENT

Section R313 of the 2007 Kentucky Residential Code requires smoke alarms (including detectors), listed in accordance with Underwriters Laboratory (UL) 217, to be installed at the following locations:

- 1) in each sleeping room
- 2) outside each sleeping area in the *immediate vicinity* of bedrooms
- 3) on each additional story of a dwelling, including basements.

Smoke Alarms are prohibited from being installed in the following locations:

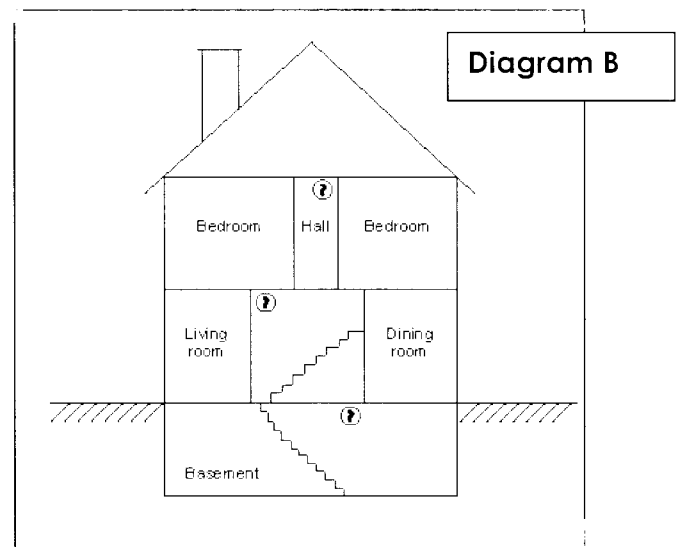
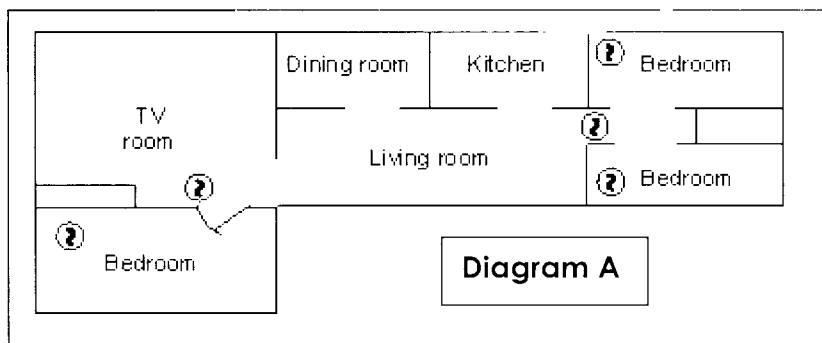
- 1) Where temperatures fall below 32 degrees F
- 2) Where temperatures rise above 100 degrees F

Smoke Alarms are not recommended for installation in the following locations:

- 1) Crawl Spaces
- 2) Uninhabitable Attics
- 3) Closer than 3 feet from a door to a kitchen or bathroom with a tub or show, with the exception of alarms specifically listed for the application.

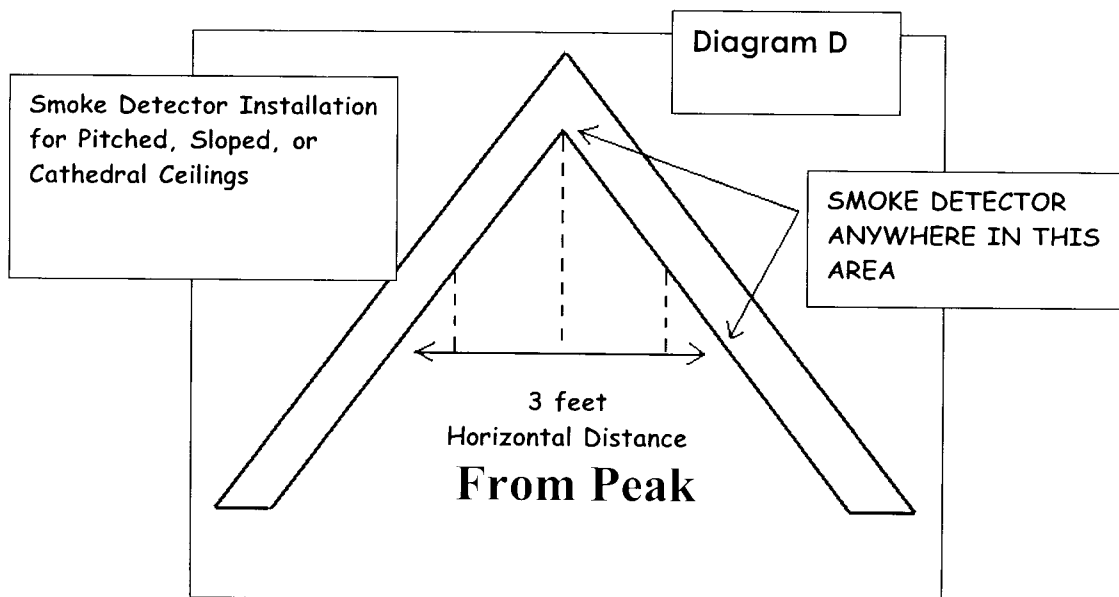
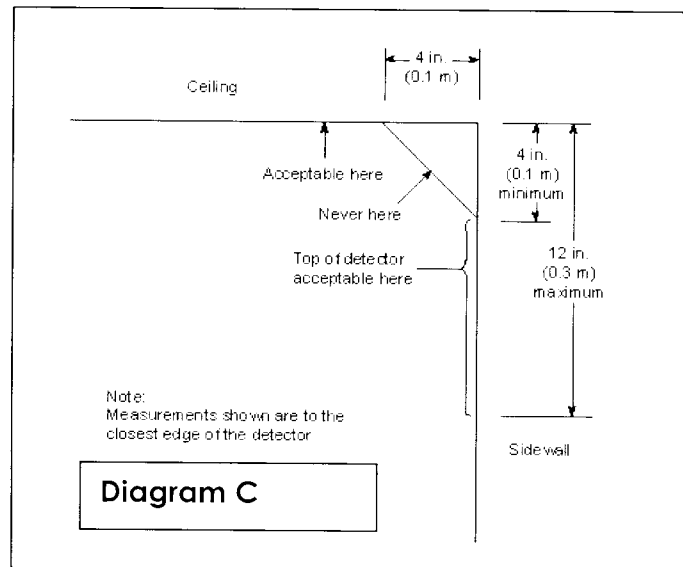
Manufacturer's instructions and National Fire Protection Association (NFPA) 72 must also be followed during installation. NFPA 72 is the national fire alarm code and it defines the term *immediate vicinity* and exact mounting parameters. For the sake of simplicity, clarity and uniformity, the Authority Having Jurisdiction (AHJ) provides the following binding interpretation:

Usually, two types of smoke alarms are available: **ionization** and **photoelectric**. Typically, both are spot-type smoke alarms, and when installed on smooth ceilings a separation of no more than 30 feet is sufficient to protect the area. Bedroom entrances separated by less than 30 feet may be protected by a single alarm not more than 15 feet away from a protected entrance. If the distance between bedroom entrances is greater than 30 feet, additional smoke alarms are required.



MOUNTING

NFPA 72 has guidelines for the placement of smoke alarms on walls or ceiling. A smoke alarm mounted on a ceiling is not to be closer than 4 inches from a wall. If mounted on a wall, the top of a smoke alarm must be between 4 to 12 inches from the ceiling (diagram C). Mounting of a smoke alarm on a sloped, pitched, or cathedral ceiling, must be at or within 3 feet of the highest point of the peak (diagram D).



Smoke alarms are also required to be interconnected such that the actuation of one alarm will actuate all the alarms in the individual unit. Smoke alarms are required to receive their primary power from the electrical service and a secondary power source of a battery.