



## Las Vegas Fire & Rescue Fire Prevention Division Information Sheet



Effective Date: July 1, 2014

CLV Ordinance #6325

*The items listed are basic information only. Codes are subject to change. Additional requirements may apply.*

### Duct Detectors

All automatic shutdown devices shall be tested at least annually. **NFPA 90A 6.4.1**

Smoke detectors listed for use in air-distribution systems shall be located:

1. Downstream of the air filters and ahead of any branch connections in air supply systems having a capacity greater than 2000 ft<sup>3</sup> per minute.
2. At each story prior to the connection to a common return and prior to any recirculation or fresh air inlet connection in air return systems having a capacity greater than 15,000 ft<sup>3</sup> per minute and serving more than one story. **NFPA 90A 6.4.2**

Return system smoke detectors shall not be required where the entire space served by the air distribution system is protected by a system of area smoke detectors. **NFPA 90A 6.4.2.2**

Where an approved fire alarm system is installed in a building, the smoke detectors shall be connected to the fire alarm system in accordance with the requirements of NFPA 72. **NFPA 90A 6.4.4.2**

Smoke detectors shall automatically stop their respective fans on detecting the presence of smoke. **NFPA 90A 6.4.3.1**

Smoke detectors shall be installed, tested, and maintained in accordance with NFPA 72. **NFPA 90A 6.4.4.1**

Where duct detectors are installed in a building not equipped with an approved fire alarm system the following shall occur:

1. Duct detector activation shall cause a visual signal and an audible signal in a normally occupied area.
2. Duct detector trouble conditions shall be indicated visually or audibly in a normally occupied area and shall be identified as air duct detector trouble. **NFPA 90A 6.4.4.3**

An acceptable duct detector annunciation device in a building without a fire alarm shall have:

1. An audible device
2. Three light indicator or equivalent device (capable of showing three distinct conditions)
  - a. A green led to indicate the presence of power and normal duct detector operation
  - b. A yellow led to indicate the presence of a trouble condition.
  - c. A red led to indicate that the duct detector has sensed the presence of smoke.
3. A reset key or switch to allow the occupant to reset the duct detector and air handler.



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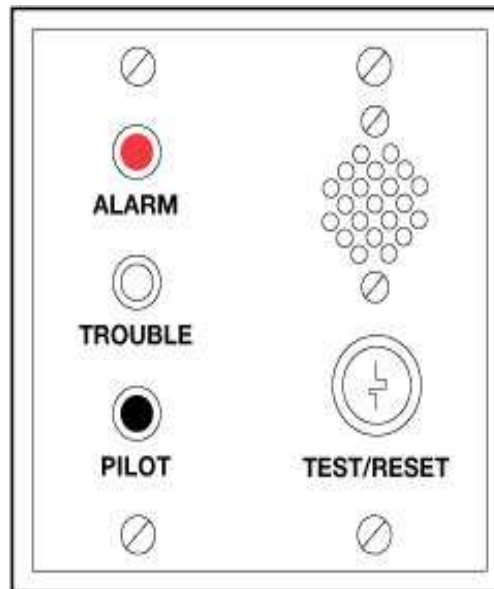


Any device that has the physical appearance of life safety or fire protection equipment but that does not perform that life safety or fire protection function shall be prohibited. (Horn strobes shall not be used for duct detector annunciation) **IFC 901.4.5**

The detectors shall be tested in place to ensure smoke entry into the sensing chamber and an alarm response. Testing with smoke or listed aerosol approved by the manufacturer shall be permitted as acceptable test methods. Other methods listed in the manufacturer's published instructions that ensure smoke entry into the sensing chamber shall be permitted. **NFPA 72 Figure 7.8.2**

Acceptance tests of fire protection devices in air-conditioning and ventilation systems shall, as far as practicable, be performed under normal operating conditions. **NFPA90A 7.3.2**

### EXAMPLE ONLY



**Las Vegas Fire & Rescue**  
Fire Prevention Division  
(702)229-0366

[www.lasvegasnevada.gov/LawsCodes/fire\\_code.asp](http://www.lasvegasnevada.gov/LawsCodes/fire_code.asp)



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