

# How to Choose a Smoke Alarm

Your application or local codes will drive what type of alarms to choose. Whether you're replacing existing alarms or adding in new, follow these simple steps:

## 1 Determine Primary Application:

### Battery Operated

- Existing Multi-family/single family (no code for wired-in alarms)
- Replacement of existing battery operated.
- Interconnected alarms not required

### Wired-in

- Replacement of existing wired-in
- New construction or remodel (code driven)
- Need to have interconnected alarms either by choice or required by code.

### Wireless

- Existing Multi-family/single family (no code for wired-in alarms). Exception: Wireless alarms with both wireless and wired-in features.
- Need interconnected alarms but can't easily pull wires through existing walls or ceilings.
- Use to bridge between floors
- Use to bridge between old and new construction
- Use to bridge between wired-in and battery operated
- Generally more expensive per alarm but savings are realized through retrofitting costs savings in time, materials and labor.

## 2 Determine Battery Type:

### Battery Operated

- Carbon Zinc (standard life) lasts at least 1 year
- Alkaline (extended life) lasts about 2 years
- Removable Lithium (long life) lasts 6-10 years
- Sealed Lithium (true 10 year) lasts at least 10 years

### Wired-in

- AC only: Where codes allow such as some motel/hotel applications. Will not operate without AC power.
- AC with battery backup: Required by most codes today. Provides alarm function when power is out.

### Wireless

Choose either

- Battery operated
- Wired-in with battery backup (bridge unit).

## 3 Determine Sensor Type:

### Battery Operated

- **Ionization:** Widely used sensor for many applications, detects small particles produced by flaming fires.
- **Photoelectric:** Detects large particles produced by smoldering fires. Better for nuisance control around kitchens and baths. Required by code in some areas of country like Massachusetts.

### Wired-in

- Photoelectric or Ionization (see above)

### Wireless

- Photoelectric or Ionization (see above)