

How do smoke detectors work?

All smoke detectors consist of a sensor to detect the smoke and an electronic horn to wake people up. The principle difference between photoelectric detectors and ionization detectors is in the method of detection. Photoelectric detectors consist of a beam of light which, if interrupted by smoke, will sound the alarm. The light sensor of a photoelectric detector needs a smoky fire that will block enough of the light beam in order to set off the alarm.

Ionization detectors are generally cheaper, more readily available, and more sensitive than photoelectric detectors. Ionization detectors use Americium 241 to detect smoke. The alpha particles emitted from the Americium create an electric current when they come into contact with oxygen and nitrogen atoms in the air. When smoke is filtered through the detector however, the current is disrupted, causing the bell to sound off.

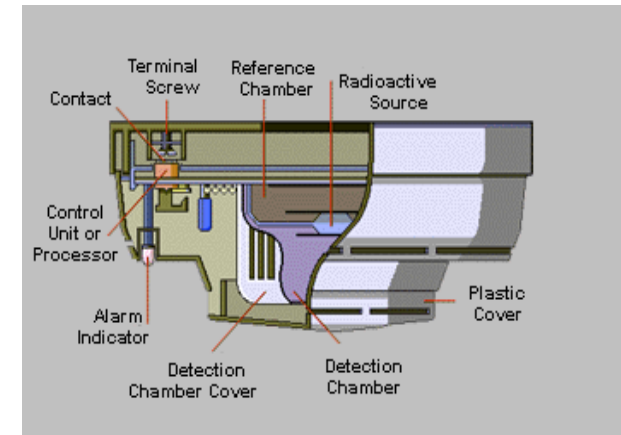
Is the radiation from my ionization smoke detector dangerous?

The alpha particles emitted from the detector penetrate the air no more than a few centimeters. The gamma radiation is a low intensity ray, and much of it is blocked by the casing of the detector. According to the Nuclear Regulatory Commission, the amount of radiation that escapes the detector is roughly 3000x less than normal background radiation exposure rates, at 1 meter from the alarm. Background radiation rates consist of the radiation from everyday sources, (the sun, rocks, soil, air, etc.). The only possible health risk is if the Americium 241 is inhaled. So, make sure not to disturb, poke or play with the ingredient in your ionization detector.

What can I do with my old Batteries?

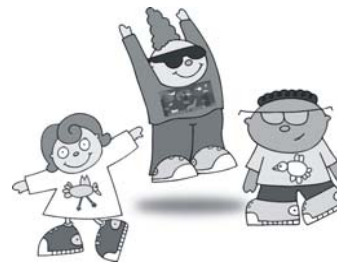
When changed out, alkaline batteries used in the operation of your smoke detector can be brought to the City of Lawrence/Douglas County Household Hazardous Waste Collection facility for proper disposal. Please call 832-3030 to schedule a drop-off appointment. Alkaline batteries that we collect are sent to a Hazardous Waste landfill for disposal.

Smoke Detectors



Check out our KIDS ONLY website!

www.LawrenceKidsRecycle.org



Lawrence has a lot to offer.

Lets Keep it that way!

Check us out at:

www.lawrenceRecycles.org

Information you
need to know about
smoke detectors in
your home.

More Information at:

www.LawrenceRecycles.org

Smoke Detectors - The Straight Facts

Did you know that smoke detectors may contain a radioactive component?

Despite this, smoke detectors are still the safest way to protect your home from destruction. They save lives on a daily basis and any potential risk of a fire still greatly outweighs any risk from the detector itself. However, becoming aware of the technology in your smoke detector can help you make informed purchasing choices and dispose of spent detectors properly.

There are two types of fire alarms in the consumer market today. Photoelectric detectors and ionization detectors. Ionization detectors contain the radioactive isotope Americium 241, a synthetic isotope which emits both alpha and gamma rays. Each smoke detector contains about 1 microcurie (about 1/5000 of a gram) of Americium shielded inside of your detector. The ingredient is shielded by a metal chamber within the plastic casing of the detector. Photoelectric detectors operate via a light beam, and thus do not have a radioactive component.

How do I dispose of my old smoke detector?

Although it is legal to dispose of your ionization detector in the trash, we encourage you to return the product back to the manufacturer. They are mandated by the Nuclear Regulatory Commission to see that the radioactive waste is disposed at a nuclear waste disposal facility.

When sending back a smoke detector, you should NOT take it apart. The entire smoke detector needs to be returned to the manufacturer or store. The batteries, however, should be removed and properly disposed of. No special shipping is needed for your smoke detector: just put it in a box, maybe with some newspaper for padding, and send it.

MANUFACTURER/ DISTRIBUTOR

The following manufacturers/distributors will take back any smoke detector that they manufacture.

HONEYWELL
800-328-5111
Call for instructions.

AMERICAN SENSORS (also accepts North American Detectors, Inc., DICON, Garrison, and TEN-TEK brands)
800-387-4219
100 Tempo Ave, Unit 15 East, Toronto, ON
Canada M2H3S5

FAMILY SAFETY PRODUCTS
205-663-3855
Thermtechnology, 2879 Remico, Grandville, MI 49418
Manufactured at one time, no longer produces detectors.

FIRST ALERT (also Family Guard, BRK, Wake 'n Warn)
800-392-1395
Customer Service Dept.,
3920 Enterprise Court, Aurora, IL 60504
If it is still under warranty.

GENTEX CORP.
616-772-1800
Return Dept., 600 N. Centennial St., Zeeland, MI 49464
If still under warranty.

INTERACTIVE TECHNOLOGIES
651-777-2690
Call for instructions.

MAPLE CHASE (also Firex)
630-710-5500
SVS Dept, 2820 Thatcher Road, Downers Grove, IL 60515
Only if under warranty.

NIGHTHAWK SYSTEMS
800-880-6788
1394 South 3RD St., Mebane, NC 27302
If still under warranty.

RADIOSHACK
817-415-3205
Bring to local Radioshack with receipt.

SEARS
785-830-2000
Will take back any that they sell without the receipt.

SENTROL
503-692-4052
Call Service Dept for instructions.
\$15 if not under warranty.

SYSTEM SENSOR
630-377-6580
3825 Ohio Ave., St. Charles, IL 60174
Will take back only if defective.

TRIAD SAFETY SYSTEMS
308-236-7062
Responses, 4595 Airport Rd, Carney, NE 68847
Only their products.

WALTER KIDDE (also Lifesaver, KIDDE Fyrnetics)
919-563-5911
1394 S. 3rd St., Mebane, NC 27302

AMWAY CORP
616-787-6000
7575 E. Fulton St., Ada, MI 49355

EDWARDS CO.
203-699-3300
90 Fieldstone Ct., Cheshire, CT 06410-1212

ENTRONIC CO.
4348 Riverline Dr., Earth City, MO 63045

Other manufacturers or stores may also take back their products or products that they sell. Check online, in the phone book, or on the back of your smoke detector for addresses and phone numbers.