

U.S. Fire Administration / National Fire Academy

*Coffee Break Training***Topic: Aging Smoke Alarms**

Learning objective: The student shall be able to identify manufacturer's date codes on some single-station smoke alarms.

Single-station residential smoke alarms, like almost any other electronic products, have an expected useful life span. Since the early days of residential smoke alarms, this life cycle has been 10 years. Once these devices reach this age their ability to function reliably declines substantially. NFPA 72, *National Fire Alarm Code*[®] requires these devices to be replaced at 10 years of age or when they become inoperable, whichever comes first.

Beginning in 1999, Underwriters Laboratories (UL) required the manufacturing date code on the back of the device to be printed in plain English. Smoke alarms manufactured before 1999 may have plain English or "coded" manufacture dates. This information may appear on the back of the device, on the face of the horn, in the battery compartment or on the top sensing chamber. The labeling requirement appears in Chapter 11 of NFPA 72, *National Fire Alarm Code*[®], 2002 Edition.

Code enforcement personnel who can readily decipher these date codes can identify those smoke alarms that are due for replacement.

Earlier versions of BRK, First Alert and Family Guard devices had a date code consisting of a series of numbers that appeared either on the face of the horn or on the top of the sensing chamber. The date code consists of the first four digits in a series of numbers and letters. The numbers designate the following:

The first digit represents the year of manufacture and the next three digits represent the day of the year. For example, in a code of 4015 6J, the first digit is the year (1994); the next three indicate the 15th day of the year or January 15th, 1994. The remaining characters are manufacturing information not necessarily related to the manufacture date.



One problem with the BRK, First Alert and Family Guard system is that there is no way to determine the year of manufacture from the code. The first digit "4" could represent 2004, 1994 or even 1984. An additional tool is to closely examine the circuit board that will include a code like "83R". This means that this circuit board type was first used in 1983. This can help narrow down the correct manufacturing date.

Fyrnetics (Lifesaver), now Kidde, also used a five- or six-digit coding system before 1999. The first two digits of their codes represent the month of production, the second two digits represent the year of manufacture, and the last digit or digits represents the week of the month. Therefore, a date code of 049203 would be translated as April, 1992, during the third week of the month.

For other manufacturers, date code information usually can be obtained by contacting the specific manufacturer.