Sprinkler Identification Numbers

All sprinklers are required to have a Sprinkler Identification Number (SIN). The SIN is comprised of one or two letters followed by three or four numbers. The requirement for this SIN is found in NFPA 13, Installation of Automatic Sprinklers, as well as UL and FM sprinkler product standards. This requirement was implemented as of January 1, 2001. Therefore, sprinklers manufactured prior to 2001 may not have this mark on them.

The goal behind the use of the SIN is to ensure proper use of the sprinklers in the field. Specifiers, design engineers, and layout technicians can check the proposed use of a sprinkler against its capabilities. In addition, the SIN can be used after a system has been installed to assist inspectors in determining if a system is adequate. On a long term basis the SIN can help with proper replacement sprinklers when they are necessary. Previously, sprinkler markings were not especially helpful to anyone trying to identify the type of sprinkler with which they were dealing.

The original concept of the SIN was to create a unified model numbering system to assist the end user and authorities with easy identification in the field. However, this was soon realized to be impractical. The vast number of variations and the fact that the same product could have different classifications from different laboratories prohibited this concept from proceeding.

Every change in orifice size, response classification, distribution characteristic, and maximum working pressure must be identified by a separate model number. This system has not been established to create uniformity of model numbers among the manufacturers. For example, Model AB120 could be one manufacturer's standard response K-5.6 (K-80 metric) upright spray sprinkler, while Model BC120 could be another manufacturer's K-14 (K-200 metric) pendent ESFR.

The letters in the SIN represent the manufacturer of the sprinkler. Their one or two letter code must be registered with the International Fire Sprinkler Association at www.sprinklerworld.org. Each manufacturer is permitted a maximum of two different letter designations. However, there are also limitations on the possible letter combinations. First, the letters are limited to the English alphabet. Also, there is a list of letter(s) (shown in the table below) that are prohibited due to conflicts with established acronyms relative to the fire sprinkler industry (such as laboratories, K-factors, sprinkler orientations or hazards).

The three or four numbers are the model numbers and are set by the manufacturer themselves. Some manufacturers use each digit to represent a characteristic of the sprinkler, while others use it strictly as a cataloging number.

References:

NFPA 13, Installation of Automatic Sprinklers, 2007 Edition. National Fire Protection Association, Quincy, MA.

UL 199, Automatic Sprinklers for Fire-Protection Service, 11th Edition. Underwriters Laboratories, Northbrook, IL.

FM Class 2000 Approval Standard, March 2006. FM Approvals LLC, Norwood, MA.
Fleming, Russell P. "Identifying Sprinklers" NFPA Journal, Jan/Feb 2001, National Fire Protection Association, Quincy, MA.

Omitted Character	Reasons
CE	European Community product approval marking
D	
EC	ISO acronym for Extended Coverage sprinklers
EH	Could be confused with Extra Hazard occupancy classification
FM	Acronym for Factory Mutual
FR	ISO acronym for Fast Response
HS	Could be confused with Horizontal Sidewall sprinkler
I	Could be confused with the number "1"
IF	
II	Could be confused with numbers
IR	ISO acronym for Special (Intermediate) Response sprinklers
K	"K" followed by numbers could be confused with the sprinkler K-factor
LH	Could be confused with Light Hazard occupancy classification
O	Could be confused with the number "0"
OH	Could be confused with Ordinary Hazard occupancy classification
OO	ISO Acronym for on/off sprinklers or could be confused with numbers
P	Could be confused with Pendent orientation
QR	Acronym for Quick Response
SK	
SP	ISO acronym for Spray Pendent sprinkler
SR	Acronym for Standard Response
SU	ISO acronym for Spray Upright sprinkler
SW	Could be confused with the Sidewall orientation
U	Could be confused with the Upright orientation
UL	Acronym for Underwriters Laboratories
W	ISO acronym for Sidewall sprinkler
WH	ISO acronym for Sidewall Horizontal sprinkler
WP	ISO acronym for Sidewall Pendent sprinkler
WU	ISO acronym for Sidewall Upright sprinkler
2nd Character "I" or "O"	As the number of digits in a SIN can range from 4 to 6 the second digit could be either a letter or a number. In order to later determine, with ease, if the second digit is a "1" versus an "I" or a "0" versus an "O", character designations will no longer be issued with the second character of "I" or "O" (effective August 2007).