

# FIREHOUSE®

## Weekly Drill DRILL #151: PORTABLE LADDERS

### Introduction

One of the many tools used by firefighters is the portable ground ladder. Portable ladders come in different varieties and are designed for the tasks that they will perform best. They are: straight ladders, extension ladders, roof ladders, folding ladders and A-frame or combination ladders.

### Straight Ladders

Straight ladders come in specific lengths and, in some fire departments, are also known as a wall ladder. The general lengths of the straight ladder are 12 feet, 14 feet, 16 feet, 18 feet and 20 feet. The feature, that makes the straight ladder so resourceful is its light weight, so it can be quickly put into operation by a single firefighter. In addition, the different lengths make it adaptable for use to gain entry into the first or second floor and can be used relatively quickly to access a porch roof.

### Extension Ladders

Extension ladders come in a variety of lengths as well; the most common lengths are 24 feet, 28 feet, and 35 feet. Generally, those extension ladders over 40 feet will be equipped with tormentor poles, which are used to stabilize the ladder. Extension ladders with these tormentor poles are also known as Bangor ladders.

The extension ladder is made up of a bed section from which additional sections of ladders (called fly sections) are secured. A rope, known as a halyard, is attached to the fly section of the ladder and used to raise the fly section using a pulley system. The pulley system acts as a mechanical advantage to assist the firefighter with raising the fly sections. Once the fly sections are raised to their desired length, a locking mechanism is used to secure and lock the ladder. This locking mechanism is referred to as the dogs or pawls.

Firefighters use the extension ladders to gain access to floors above the first floor and to get to the roof.

### Roof Ladders

Roof ladders are often confused with the straight ladder because they look identical, however, roof ladders have hooks attached to the tip of the ladder. These hooks are usually folded inward giving them a low profile so they can be stored on the apparatus. When the hooks are in



the storage position, the ladder can be used as a straight ladder, but if not, it can only be used on a roof. The hooks are placed over the ridge board to secure the ladder to the roof while firefighters climb them.

### Folding Ladders

This folding ladder is unique and can be called by a number of names, however, the most common name for it is the attic ladder. The most common length is 10 feet, but there are other lengths available. Just as the name implies, this ladder folds or collapses making it easy to maneuver. The most common area this type of ladder is used is gaining access to the attic through a scuttle hole in the ceiling.

### A-Frame or Combination Ladders

A-Frame or combination ladders can be used (as the name suggests) in a combination of ways. When being stored, it collapses down into a small configuration. The ladder can be used as an extension ladder, however, it does not have a halyard and can only be extended by hand. Additionally it can be used like a straight ladder or set up as an A-frame or stepladder.

*—Prepared by Russell Merrick*