

## Portable Fire Extinguishers

*Small fires can be handled if you are prepared. First, call the local fire department then, fight the fire.*

Different types of fires require different types of Fire Extinguishers. Because there isn't much time of a fire breaks out, check now that the correct extinguisher is available where fire hazards exist.

### Fires are classified as:

- **Fires in wood, textiles and other ordinary combustibles** containing carbonaceous material. These fires are extinguished by the cooling action of water-based agents or by insulating and fusing with general purpose dry chemical.
- **Fires in gasoline, oil, paint or other flammable liquids** that gasify when heated. These fires are extinguished primarily by shutting off the air supply and smothering the blaze.
- **Fires in electrical equipment.** Because of the shock hazard these fires should be extinguished by a nonconductor of electricity.
- **Fires in combustible metals** such as magnesium, sodium, potassium, titanium, zirconium, etc. These are extinguished by a special powder which seals the burning surface and smothers the fire.

### Types and Operation of Portable Fire Extinguishers

<b>Pressurized water</b>	<b>To operate</b>
Contains water under pressure and has a pressure gauge.	Pull pin and squeeze handle, 30-40' range.  A special calcium chloride solution may be added to prevent freezing.
<b>Pump tank</b>	<b>To operate</b>
Contains water, with manually-provided pressure.	Pump by hand, 30-40' range.  A calcium chloride solution may be added to prevent freezing.
<b>All-purpose</b>	<b>To operate</b>
Contains a specially treated powder under pressure of nitrogen, and has a pressure gauge.	Pull trigger or press lever, 5-20' range.  No antifreeze precautions required.
<b>AFFF foam</b>	<b>To operate</b>
Contains a solution of water and aqueous film forming foam which combine to produce the extinguishing agent.	Pull pin and squeeze handle, 20-25' range.  Keep in a heated area; never add antifreeze chemicals.

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## Types and Operation of Portable Fire Extinguishers

### Carbon dioxide

#### To operate

Contains carbon dioxide, which is a nonconductor of electricity that leaves no residue after use.

Pull pin and press lever, 3-8' range.  
No antifreeze precautions required.

### Dry chemical

#### To operate

Contains a specially treated sodium bi-carbonated base under pressure, which is expelled by carbon dioxide to "blast out" the fire.

Pull pin and press lever, 5-20' range.  
No anti-free precautions required.

### Halon 1211

#### To operate

Contains Bromochlorodifluoromethane under pressure, nonconductor of electricity and leaves no residue.

Pull pin and press lever, 9-15' range.  
No antifreeze precautions required.

### Compact lightweight wheeled extinguishers

#### To operate

Typical applications for compact units of this type include: warehouses, light and heavy manufacturing operations and in areas using large quantities of flammable solvents.

Wheeled units are available in 150 and 350 pound sizes.

No antifreeze precautions required.

## Location of extinguishers

Fire extinguishers should be located so as to provide easy accessibility. They should be free from blocking, near normal paths of travel, near entrance and exit doors and free from the potential for damage. Extinguishers should be readily visible, UL listed and hung with tops three to five feet above the floor.

## Extinguisher classification and ratings

Extinguishers are classified for the type of fire on which they may be used by a letter system (A, B, C, D), and are rated by a number system to denote capacity. The rating will appear on the extinguisher label. (Example 2A; 20B, etc.)

Extinguishers should be installed within the actual travel distances shown below. Travel distances for Class A and B extinguishers should be determined based on the occupancy (light, ordinary, extra). Travel distances for Class C should be based on the distances determined for A or B Hazards. Extinguishers for Class D should be located not more than 75 feet from the hazard.

For flammable liquid hazards Class B Extinguishers should be provided on the basis of one extinguisher rating unit per square foot of flammable liquid surface of the largest tank hazard within the area.

## Fire extinguisher maintenance

Fire extinguishers should be maintained in the best possible condition at all times. They should be inspected at least annually by qualified personnel. A tab listing the date of inspection or service should be provided.



**Extinguishers for Class A Fire**

	<b>Extinguisher rating units per 3000 sq. ft.</b>	<b>Maximum travel to extinguisher</b>
Light hazard occupancies include office buildings, schools (exclusive of trade schools and shops), churches, and public buildings, where because of the relatively small amount of combustibles, incipient fires of minimum severity may be anticipated.	1A*	75 Ft.
Ordinary hazard occupancies include department stores, warehouses, and manufacturing buildings of average hazard where incipient fires of average severity in combustibles may be anticipated.	2A	75 Ft.
Extra hazard occupancies include warehouses woodworking shops, textile mills, and paper mills, where because of the character or quantity of combustibles, extra severe incipient fires may be anticipated.	3A**	75 Ft.

\* If a Single Extinguisher is required the rating must be at least 2A.

\*\* If a Single Extinguisher is required the rating must be at least 4A.

**Extinguishers for Class B Fire**

For Extinguishers Labeled After June 1, 1989

	<b>Minimum rating units</b>	<b>Maximum travel to extinguisher</b>
Light	5-B	30 Ft (9m)
	10-B	50 Ft (15 m)
Ordinary	10-B	30 Ft
	20-B	30 Ft
Extra	40-B	50 Ft
	80-B	50 Ft

Recharging procedures: Empty extinguishers should never be put back in place. All extinguishers should be inspected and recharged after a fire. Recharging procedures should be followed in accordance with the manufacturers instructions on the nameplate mounted on the extinguisher. Spare recharges and a supply of spare cartridges should be kept available.

The information presented in this publication is intended to provide guidance and is not intended as a legal interpretation of any federal, state or local laws, rules or regulations applicable to your business. The loss prevention information provided is intended only to assist policyholders in the management of potential loss producing conditions involving their premises and/or operations based on generally accepted safe practices. In providing such information, Great American does not warrant that all potential hazards or conditions have been evaluated or can be controlled. It is not intended as an offer to write insurance for such conditions or exposures. The liability of Great American Insurance Company and its affiliated insurers is limited to the terms, limits and conditions of the insurance policies underwritten by any of them.

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