

SAFETY PRECAUTIONS FOR HOME AND ON THE JOB

(The following information was gathered from various heating and air conditioning textbooks).

Objectives: to avoid safety hazards and to work safely

Electrical hazards: Electrical power should always be shut off and locked out when installing and servicing equipment. Specific requirements furnished by the Occupational Safety and Health Administration (OSHA) give the details for working safety conditions, including electrical lock-out and tag procedures. Keep the panel locked when you are out of sight and keep the only key with you to prevent someone from accidentally turning the power on.

Do not stand in wet or damp areas when making checks. Use proper test equipment in good condition. Wear heavy shoes with insulating soles and heels.

Use properly grounded power tools connected to properly grounded circuits. Do not become a conductor between two live wires or a live wire and ground.

Ladder safety: Always use a non-conducting ladder made of wood or fiberglass. A non-conducting ladder will provide protection from electrical shock to ground, but it will not provide protection between two or more electrical conductors. Make sure the ladder is placed on a level surface that is not slippery. If there is any doubt, secure the ladder at the feet. The ladder should extend about three feet above the upper landing surface, and the space at the base of the ladder should be $\frac{1}{4}$ of the length of the ladder.

Moving heavy objects: When lifting, use your legs and not your back. Wear an approved back brace belt. Some tools such as pry bar, lever truck, hand truck, and portable dolly might be useful. Use short lengths of pipe as rollers to help move equipment across a solid floor. When moving equipment across carpet or tile, lay down plywood in front of the equipment as it is moved along.

Safety hints: Know the location of a first-aid kit and fire extinguisher. Some fire extinguishers are designed for specific purposes. Type A is for trash, wood, and paper. Type B is for liquids, and Type C is for electrical equipment fires. Some are rated for all three types of fires. Don't wear jewelry that can catch on nails or other objects and cause injury.

Using the above information, answer the following questions.

1. What do the letters A, B, and C mean on a fire extinguisher?
2. Name two ways to move heavy objects.
3. How far from a wall should a ladder be placed?
4. What are two things you should do when installing and servicing electrical equipment?
5. Should you use a heavier aluminum ladder for stability?

ANSWER KEY

1. Type A is used for trash. Type B is for liquids. Type C is for electrical equipment fires.
2. pry bar, lever truck, hand truck, portable dolly, short lengths of pipe as rollers, plywood in front of equipment to help move it across carpet or tile.
3. Base of ladder should be $\frac{1}{4}$ the length of the ladder from the building.
4. Turn off power and lock it out. Do not stand in wet or damp areas. Make sure test equipment is in good condition. Wear heavy shoes with insulating soles and heels. Use properly grounded power tools connected to properly grounded circuits. Do not become a conductor between two live wires or a live wire and ground.
5. No. Use a non-conducting ladder made of wood or fiberglass.