

OBJECTIVES

- Discuss the General Safety Rules for the work space.
- Discuss the General Safety Rules for personal safety.
- Describe the type of Fire Extinguishers and their uses.

INTRODUCTION

Safety in and around the shop area must be at the top of your priority list. Whether you're doing a simple radio installation or a full custom system, there are always possibilities of you or another co-worker getting injured or worse. Safety can easily be overlooked especially if you are trying to cut corners or you are being pressured to hurry up because you have installs waiting.

Shop Safety

Following simple safety rules can keep you and your fellow installers safe and possibly avoid costly lawsuits and injury claims.

General Safety Rules

Work Area

1. Keep work areas clean. Cluttered areas and benches invite accidents.
2. Avoid a dangerous environment. Don't use power tools in damp or wet locations. Do not expose power tools to rain. Keep work area well lit.
3. Avoid gaseous areas. Do not operate portable electric tools in explosive atmospheres in presence of flammable liquids or gases. Motors in these tools normally spark, and the sparks might ignite fumes.
4. Keep children away. Do not let visitors or customers contact tools or extension cords. All visitors should be kept away from work areas while work is in progress.

Personal Safety

1. Dress properly. Do not wear loose clothing or jewelry. They can be caught in moving parts. Wear protective hair covering to contain long hair.
2. Wear safety goggles or glasses with side shields whenever power tools are in use, whenever chemicals (such as paint or fiberglass resin) are being used, whenever working around contents under pressure (such as a vehicle air conditioning system) or anytime airborne particles could accidentally come into contact with the eyes.



3. Wear hearing protection during extended use of power tools or whenever testing and adjusting extremely loud mobile audio systems.
4. Wear a dust mask or a respirator for dusty operations such as woodworking or sanding. Wear a charcoal filtered respirator that filters out organic vapors (OV's) whenever working around paints or fabrication chemicals such as polyester resins or primers.
5. Stay alert. Use common sense. Watch what you are doing. Do not operate tool when you are tired or under influence of alcohol or drugs.
6. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from equipment before turning it on.
7. Avoid accidental starting. Don't carry a plugged in tool with a finger on the switch. Be sure the switch is off before plugging the tool in.
8. Don't overreach. Keep proper footing and balance at all times.
9. Before connecting the tool to a power supply (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the tool's nameplate. A power supply with voltage greater than that specified for the tool can result in serious injury to the user - as well as damage to the tool. If in doubt, DO NOT PLUG IN THE TOOL. Using a power supply with voltage less than the nameplate rating is harmful to the motor.

Fire Extinguishers

Another common hazard that may occur in the shop is fire. Whether from a shorted wire in a vehicle or from using a blowtorch soldering wire connectors, fire can happen and happen quickly. It's important that you not only know where the shops fire extinguishers are, but also how to use them. Another thing is recognizing that there are different types of extinguishers for different types of fires.

- Type A – for wood and paper
- Type B – for oil and flammable liquids
- Type C – for fires of an electrical nature
- Halon - for all types of fires

KNOW YOUR FIRE EXTINGUISHERS

TYPE OF EXTINGUISHER		TYPE OF FIRE			RANGE	HOW TO OPERATE
		A ORDINARY COMBUSTIBLES - wood - paper - cloth, etc.	B FLAMMABLE LIQUIDS - gasoline - paints (oil based) - oils, etc.	C ELECTRICAL EQUIPMENT - motors - switches		
WATER		NO	NO	9m to 12m	Place foot on footrest, pump handle and direct stream at base of flame.	
		NO	NO	9m to 12m		
CO ₂		NO		1m to 1.5m	Direct discharge at base of flames in a sweeping motion, then direct it gradually forward or at remaining material that is burning.	
HALON				2.5m to 4.5m		
DRY CHEMICAL		NO		1.5m to 6m	NOTE: All extinguishers require annual servicing or servicing after use.	
				5m to 7.5m		

Regardless of the type of extinguisher you use they all work on the same basic principle, by removing the source of oxygen.

When fighting a fire you should always point the nozzle of the extinguisher toward the base of the flames, not the material on fire. Also, it's important to know when you can and can't fight a fire. If the fire looks to be out of control contact the fire department and get away from the fire to a safe distance.

