

All power tools can be dangerous if both general and tool specific safety instructions are not followed carefully. General safety instructions apply to all power tools, both corded and cordless.

## Start with a Safe Work Area



Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.



Do not operate power tools in explosive atmospheres, near flammable liquids, gases, or dust. Power tools create sparks, which may ignite the dust or fumes.

- Keep bystanders, children, and visitors away when using a power tool. Distractions can cause you to lose control.



## Electricity can be Dangerous

Grounded tools (three pronged cords) must be plugged into a properly grounded installed outlet. Never remove or cut off the grounding prong or modify the plug in any way. Do not use any adapter plugs.



Double Insulated tools have a polarized plug (one blade is wider than the other.) This plug will fit into an outlet only one way. Do not change the plug in any way.



Do not use AC only rated tools with a DC power supply.



Store battery packs away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects. These things can make a connection from one terminal to the other, shorting the battery terminals together and causing burns or fire.



- When using a power tool, don't touch grounded surfaces such as pipes, radiators, ranges and refrigerators. There is a higher risk of electric shock if your body is grounded.

## GFCI

In damp locations, only plug your tool into a Ground Fault Circuit Interrupter (GFCI). If the work area does not have a permanent GFCI on the outlet, use a plug-in GFCI. Wear rubber gloves and footwear.



Don't use or leave power tools in the rain or wet conditions.



Do not abuse the cord, carry the tool by its cord, or pull the cord to unplug it. Keep the cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.



Always hold the tool by the insulated gripping surfaces. Contact with hidden wiring or its own cord will make exposed metal parts of the tool "live" and shock the operator.

## Rules about Extension Cords

- When using a power tool outside, use an extension cord marked for outdoor use with "W-A" or "W". These cords are made for outdoor use.
- Extension cords with 3-prong grounding plugs must be plugged into 3-prong outlets when using grounded tools.
- Replace damaged or worn cords immediately.

## Amps

The wire gauge and length of the extension cord must be able to handle the amps of the tool. Find the Amps (A) on the tool's nameplate and use the chart to determine the necessary wire gauge for your extension cord length.

Nameplate Amps	Extension Cord Gauge			
	Cord Length in Feet			
	25'	50'	100'	150'
0-6	18	16	16	14
6-10	18	16	14	12
10-12	16	16	14	12
12-16	14	12	Not Recommended	

## Good Personal Safety is a Must

Following good safety practices when using all power tools is a must. Make a habit of including safety in all of your activities.



Always read and understand the tool's operator's manual, tool markings and the instructions packaged with the accessory before starting any work.

- Stay alert, watch what you are doing and use common sense when using a power tool.



Do not use tools when you are tired or under the influence of drugs, alcohol, or medication.

- Dress right. Do not wear gloves, loose clothes or jewelry. Contain long hair. Loose clothes, gloves, jewelry, or long hair can be caught in moving parts.
- Keep handles dry, clean and free from oil and grease.
- Be sure the power tool's switch is OFF before plugging it in or inserting a battery pack. Do not carry tools with your finger on the switch.



Remove adjusting keys and wrenches before turning the tool ON.

- Always keep a firm footing when using power tools. Be sure you have balance and control before you start the job.



Use safety equipment. Always wear eye protection. A dust mask, non-skid safety shoes, hard hat, or hearing protection must be used when needed. The reference to “safety goggles” or “safety glasses” in product specific sections provides potential options - always refer to the tool’s operator’s manual for the specific eye protection recommended, which should be marked as complying with current national standards.

- Unplug tool/remove battery before changing accessories.



Keep hands away from rotating or moving parts.

### Do the Job Safely

- Use the power tool accessories only for the jobs for which they were designed.



Secure and support the workpiece. Use clamps and a stable work surface. Do not hold the work by hand or against your body.

- Keep guards in place and working properly.
- Do not force the tool. Use the right tool for your job. It will do the job better and safer.
- Use only accessories recommended by the tool manufacturer. Accessories that may be suitable for one tool may become hazardous when used on another tool.



Do not touch the drill bit, blade, cutter or the workpiece immediately after operation; they may be very hot and may burn you.

- If a method of dust collection is available with the power tool, it should be used to reduce the risk of dust-related hazards.

### Maintenance Keeps Tools Working Safely and Effectively

- Do not use a tool if the switch does not turn it on and off. It must be repaired.



Look at the tool before using it. Are moving parts misaligned or binding? Is anything broken? Damaged tools must be fixed before using them. Develop a maintenance schedule for your tool.

- Maintain accessories carefully. Keep blades and bits sharp and clean.
- Take your tool to be serviced by qualified repair people. Service or maintenance performed by unqualified personnel could result in a risk of injury. For example: internal wires may be misplaced or pinched, safety guard return springs may be improperly mounted.
- When servicing a tool, use only identical replacement parts. Follow instructions regarding maintenance in the tool’s operator’s manual. Use of unauthorized parts or failure to follow the maintenance instructions may create a risk of electric shock or injury.
- Clean and lubricate a tool only as directed in its operator’s manuals. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.
- Maintain labels and nameplates. These carry important information. If unreadable or missing, contact the manufacturer for a replacement.

### When Done, Store the Tools out of Harm’s Way



To avoid accidental starting, unplug the cord, remove batteries or lock off the switch when the tool is not being used, when changing accessories, and when adjusting or cleaning tools.

- Keep tools out of the reach of children and people unfamiliar with the tools.

## Heat Guns

Heat guns have a variety of uses, such as removing paint, creating bends and welding plastics, cutting Styrofoam, soldering, heat shrinking, and thawing water pipes. The extreme temperatures that make heat guns so useful also make them very dangerous.

### Good Personal Safety is a Must

Following good safety practices when using a heat gun is a must. Make a habit of including safety in all your activities.



Always read and understand the tool's operator's manual, tool markings and the instructions packaged with the accessory before starting any work.



Always wear safety goggles or safety glasses with side shields complying with current national standards, and a full face shield when needed.



Always wear the appropriate mask or respirator.



Wear proper hearing protection, as needed.

Do not point the heat gun at clothing, hair or other body parts. Do not use as a hair dryer. Heat guns can produce 1000°F (540°C) or more of flameless heat at the nozzle. Contact with the air stream will result in serious burns and personal injury.

- Dress right. Do not wear loose clothes or jewelry. Contain long hair. Loose clothes, jewelry, or long hair can contact the air stream or nozzle, causing burns or fire.
- Crowded, cluttered work areas that can cause tripping or loss of balance are particularly dangerous.

### Choose the Right Tool and Accessory

There are hundreds of nozzles and accessories for heat guns. Use only those specifically recommended by the heat gun manufacturer. Others may not fit right or be able to handle the heat generated by the heat gun.

### Know your Work Environment



Do not use near flammable liquids or in explosive atmospheres, such as near fumes, gases or dust. The flameless heat from the heat gun may ignite the dust or fumes. Remove materials or debris that may become ignited from work area.

- Hidden areas such as behind walls, ceilings, floors, soffit boards and other panels may contain flammable materials that may ignite when using the heat gun in these locations. Ignition of these materials may not be readily apparent and could result in property damage and personal injury. Check these areas before applying heat. If in doubt, use a different method.

### Before Using the Heat Gun...



Shield materials around the heated area to prevent property damage or fire. Keep a fire extinguisher nearby.

### When Using the Heat Gun...

- Always hold the heat gun by the plastic enclosure.
- Do not touch nozzle or accessory tips, or store heat gun until the nozzle has cooled to room temperature. The metal nozzle requires approximately 20 minutes to cool before it can be touched. Contact with the nozzle or accessory tip could result in personal injury. Place the heat gun in a clear area away from combustible materials while cooling to prevent materials from igniting.
- Keep heat gun moving to avoid excessive temperatures. Pausing or lingering in one spot may ignite or melt the workpiece or the material behind it.
- Do not cut off air flow by placing nozzle too close to workpiece. Keep intake vents clean and clear of obstructions. Restricting air flow may cause the heat gun to overheat.
- Place the heat gun on a stable, level surface when not hand held. Use the support pads or support stand. Place cord in a position that won't cause the heat gun to tip over.
- Do not leave the heat gun unattended while running or cooling down. It could tip, causing fire or burns.
- Do not apply airflow directly on glass. The glass may crack or shatter, resulting in property damage or personal injury.
- The proper amount of heat for each job depends on the temperature range selected, distance between the nozzle and workpiece, and the length of time heat is applied. Experiment with scrap materials and start with lowest temperature range. Be careful when working until the proper combination of heat, distance and time of application has been obtained. Use a back and forth motion when applying heat unless concentrated heat is desirable.

## When Done...



Unplug tool immediately after use, before removing or changing the nozzle and before performing any service or maintenance on the tool.



Store the tool in a dry place.

## Special Considerations for Removing Paint



Use extreme care when stripping paint. Peelings, residue and vapors of paint may contain lead, which is POISONOUS. Pre-1977 paint may contain lead and paint made before 1950 is likely to contain lead. Hand to mouth contact with

paint peelings or residue from pre-1977 paint may result in lead ingestion. Exposure to even low levels of lead can cause irreversible brain and nervous system damage. Young and unborn children are especially vulnerable to lead poisoning. **DO NOT REMOVE LEAD-BASED PAINT WITH A HEAT GUN.** Before beginning your work, determine whether the paint you are removing contains lead. A local health department or a professional who uses a paint analyzer can check the paint for lead content. **LEAD-BASED PAINT SHOULD BE REMOVED ONLY BY A PROFESSIONAL.**

- Work in a well ventilated area. If possible, move the workpiece outside. If working indoors, open windows and put an exhaust fan in a window. Be sure the fan is moving air from inside to outside. Proper ventilation will reduce the risk of inhaling chemicals found in the fumes or dust created by using a heat gun.
- Remove or protect any carpets, rugs, furniture, clothing, cooking utensils and air ducts to prevent contamination and property damage from the paint peelings. Paint scrapings may ignite if too close to the heat gun nozzle.



Keep food and drink away from work area. Wash hands, arms and face and rinse mouth after leaving the work area and before eating and drinking. Do not smoke, or chew gum or tobacco in the work area.

- Place drop cloths in the work area to catch paint scrapings. Wear protective clothing such as hats, extra work shirts and overalls. Paint scrapings may contain chemicals that are hazardous.
- Work in one room at a time. Remove furnishings or cover them and place in the center of the room. Seal doorways with drop cloths to seal work area from the rest of the building.
- Children, pregnant women, and nursing mothers should not be near work area until all work is

completed and work area is cleaned thoroughly.

- Wear a dust respirator mask or a dual filter (dust and fume) respirator mask which has been approved by the Occupational Safety and Health Administration (OSHA), the National Institute of Safety and Health (NIOSH), or the United States Bureau of Mines. These masks and replaceable filters are readily available at major hardware stores or industrial distributors. Be sure the mask fits. Beards and facial hair may keep masks from sealing properly. Change filters often. Disposable paper masks are not adequate.
- Clean up all paint scrapings and dust. Do not sweep, dry dust or vacuum; the paint dust will be thrown up into the air where it can be inhaled or contaminate other areas. Wet mop floors. Use a wet cloth to clean all walls, sills and other surfaces where paint and dust have accumulated. Use a high phosphate detergent, trisodium phosphate (TSP), or a trisodium phosphate substitute to clean and mop the work area.



Dispose of paint scrapings properly. Following each work session, place paint scrapings in a double plastic bag, close it with tape or twist ties and dispose.

- Remove protective clothing and work shoes in the work area to avoid transferring dust to other parts of the building. Wash work clothes separately. Wipe shoes off with a wet rag that is then washed with the work clothes. Wash hair and body thoroughly with soap and water.
- Crowded, cluttered work areas can cause tripping or loss of balance and are particularly dangerous.
- Never alter a guard or use the tool with a guard missing. Be sure all guards are in place and working properly before each use. Do not defeat guards.