

### **1 YEAR LIMITED WARRANTY**

PERFORMANCE TOOL® extends only the following warranties, and only to original retail purchasers. These warranties give specific legal rights. Except where prohibited by local law, the law of the State of Washington governs all warranties and all exclusions and limitations of warranties and remedies. There may be other rights which vary from state to state.

PERFORMANCE TOOL® warrants the product to be free from defects in materials and workmanship under normal use and service. A defective product may be returned for a free replacement within 90 days from the date of purchase, provided that product is returned to place of purchase immediately after discovery of defect. After 90 days and up to one year from date of purchase, PERFORMANCE TOOL® will replace at no charge any parts which our examination shall disclose to be defective and under warranty. These warranties shall be valid only when a sales receipt showing the date of purchase accompanies the defective product or defective part(s) being returned. For part(s) after 90 days, please remit your request, postage prepaid to:

PERFORMANCE TOOL, P.O. Box 88259 Tukwila, WA 98138

These warranties exclude blades, bits, punches, dies, bulbs, fuses, hoses, and other consumables which must be replaced under normal use and service. These warranties shall not apply to any product or part which is used for a purpose for which it is not designed, or which has been repaired or altered in any way so as to affect adversely its performance or reliability, nor shall these warranties apply to any product or part which has been subject to misuse, neglect, accident or wear and tear incident to normal use and service.

PERFORMANCE TOOL® does not authorize any other person to make any warranty or to assume any liability in connection with its products.

Except for warranties of title and the limited express warranties set forth above, PERFORMANCE TOOL® makes no express or implied warranties of any kind with respect to its products. In particular, PERFORMANCE TOOL® makes no implied warranty of merchantability and no implied warranty of fitness for any particular purpose, except that for goods purchased primarily for personal, family or household use and not for commercial or business use, PERFORMANCE TOOL® makes an implied warranty of merchantability (and, if otherwise applicable, an implied warranty of fitness for a particular purpose), but only for the particular qualities or characteristics, and for the duration, expressly warranted above. The laws on limitation of implied warranties may differ from state to state, so the above limitations may not apply in all cases.

PERFORMANCE TOOL® shall not be liable for consequential, incidental or special damages resulting from or in any manner related to any product, or to the design, use, or any inability to use the product. The sole and exclusive remedy for a defective product or part shall be the repair, or replacement thereof as provided above. The laws on limitation of remedies or on consequential, incidental or special damages may vary from state to state, so the above limitations may not apply in all cases.

# VARIABLE TEMPERATURE HEAT GUN

Stock Number W50077

## OWNERS MANUAL



### **AWARNING**

*It is the owner and/or operators' responsibility to study all WARNINGS, operating, and maintenance instructions contained on the product label and instruction manual prior to operation of this product. The owner/operator shall retain product instructions for future reference.*

*The owner and/or operator are responsible for maintenance, maintaining all decals or warning labels and while in use, maintaining the unit in good working order. If the owner and/or operator are not fluent in English, the product warnings and instructions shall be read and discussed with the operators' native language by the purchaser/owner or his designee. Make sure that the operator comprehends its contents. Safety information shall be emphasized and understood prior to usage. The product shall be inspected per the operating instructions.*

*Users of this product must fully understand these instructions. Each person operating this product must also be of sound mind and body and must not be under the influence of any substance that might impair their vision, dexterity or judgment.*

*Protect yourself and others by observing all safety information.*

*Failure to comply with instructions could result in personal injury and/or property damage!*

*If you encounter any problems or difficulties, please contact our customer service department at: 1-800-426-1262 between 6:30 a.m. and 4:30 p.m. Pacific time.*

# **PT**

**Performance Tool**

Please read these instructions carefully and retain them for future use.

On occasion, after printing of our literature is completed, our manufacturers may make changes and/or modifications to merchandise which will not be reflected in this manual. Although we strive to maintain complete and accurate information, it is possible in some instances, that the product may differ slightly from printed specifications. Illustrations are intended for reference only. Actual merchandise may vary. Wilmar is not responsible for typographical errors.

Performance Tool®

# SAFETY GUIDELINES / DEFINITIONS

This instruction manual is intended for your benefit. Please read and follow the safety, installation, maintenance and troubleshooting steps described within to ensure your safety and satisfaction. The contents of this instruction manual are based upon the latest product information available at the time of publication. The manufacturer reserves the right to make product changes at any time without notice.

**⚠ WARNING:** Read and understand this entire instruction manual before attempting to assemble, install, operate or maintain this product. Failure to comply with the instructions may result in serious personal injury and/or property damage!

The following signal words are used to emphasize safety warnings that must be followed when using this product:

**⚠ DANGER** Indicates an imminently hazardous situation that, if not avoided, WILL result in death or serious injury.

**⚠ WARNING** Indicates a potentially hazardous situation that, if not avoided, COULD result in death or serious injury.

**⚠ CAUTION** Indicates a potentially hazardous situation that, if not avoided, MAY result in minor or moderate injury.

**⚠ NOTICE** Indicates important information, which if not followed, MAY cause damage to equipment.

# UNPACKING AND INSPECTION

After opening the carton, unpack your new product and related parts & accessories. Please inspect it carefully for any damage that may have occurred during transit. Please check it against the photograph on carton. If any parts are missing, please call customer service at 1-800-426-1262 between 6:30 a.m. and 4:30 p.m. Pacific time.

**⚠ WARNING** DO NOT operate this product if damaged during shipment, handling or misuse. Do not operate the product until the parts have been replaced or the fault rectified. Failure to do so may result in serious personal injury or property damage. All damaged parts must be repaired or replaced as needed prior to operating this product. Check to see that all nuts, bolts and fittings are secure before putting this product into service. If you have any questions, or require assistance with damaged or missing parts, please contact our factory customer service department at: 1-800-426-1262.

Please have the serial number, model number, and date of purchase available for reference when calling.

# SPECIFICATIONS

Temperature .....	158 -1,022 °F
Wattage .....	1,500 W
Ampage .....	0.8 - 12.0 A
Voltage .....	120V AC 60Hz

**Specifications are subject to change without notice.**

# IMPORTANT SAFETY INFORMATION

## ⚠ WARNING

**HEAT GUNS ARE A SOURCE OF VERY HIGH TEMPERATURE FLAMELESS HEAT. AS WITH OTHER PRODUCTS WHICH GENERATE EXTREMELY HIGH TEMPERATURES, READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS PRODUCT. FAILURE TO DO SO MAY RESULT IN FIRE, ELECTRICAL SHOCK, PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID WARRANTY.**

1. Always use common sense and pay particular attention to all the DANGER, WARNING, CAUTION and NOTICE statements of this manual. The safety instructions provided are not intended to cover all possible conditions and practices that may occur when operating, maintaining and cleaning power tools.
2. Observe work area conditions. Do not use machines or power tools in damp or wet locations. Don't expose to rain or snow. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids. Do not bring combustible materials near the tools. Power tools create sparks, which may ignite the dust or fumes. Do not immerse tool in liquids. Keep work area clean, well ventilated and well lit. Cluttered work areas invite accidents.
3. Use personal protective equipment. Wear ANSI approved safety goggles. Protective equipment such as dusk mask, non-skid safety shoes, hard hat, heavy duty work gloves or hearing protection used for appropriate conditions will reduce personal injuries.
4. Keep bystanders, children and visitors away while operating this product. Distractions can cause you to lose control.



## TROUBLESHOOTING

<u>Problem</u>	<u>Probable Cause</u>	<u>Solution</u>
Will not turn on.	<ol style="list-style-type: none"><li>1. Power switch set at "OFF"</li><li>2. No Power at outlet</li><li>3. Cord not connected</li></ol>	<ol style="list-style-type: none"><li>1. Turn Power Switch to "I" or "II".</li><li>2. Check power at outlet.</li><li>3. Check that cord is plugged in.</li></ol>
Unsatisfactory results	<ol style="list-style-type: none"><li>1. Improper heat settings.</li></ol>	<ol style="list-style-type: none"><li>1. Adjust heat settings for correct application.</li></ol>

## CARE & MAINTENANCE

**⚠ WARNING** Always turn power switch to "OFF" position and unplug power cord from electrical outlet before attempting cleaning or maintenance.

**⚠ NOTICE** This power tool is lubricated before it leaves the factory. This lubrication should last for the life of the tool. No further lubrication is required.

Make sure that the ventilation openings are kept clean and free of foreign matter.

Use a mild soap and damp cloth to clean outside of tool.

Do not use other cleaning agents, turpentine, gasoline, lacquer thinner, paint thinner, or other solvents that may contain chemicals which are harmful to plastics and other insulating materials. Never immerse tool in a liquid or allow a liquid to enter inside the tool.

Never open the heat gun. Do not attempt to repair the heat gun yourself, doing so will void your warranty.

# IMPORTANT SAFETY INFORMATION

5. Stay alert. Watch what you are doing, and use common sense when operating this tool. Do not use this product while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating this product may result in serious personal injury. Keep proper footing and balance at all times. Do not reach over or across running machines, hoses, cords, etc.
6. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
7. Work Safe. Operate tool a safe distance from yourself and others in the work area. Keep proper footing and balance at all times. Do not overreach, especially on ladders. Be certain ladders being used are sturdy, stable, on a firm surface and erected as safe working angles. Do not reach over or across running machines, hoses, cords, etc.
8. Inspect tool before every use; do not use if parts are loose or damaged.
9. Do not alter this product in any way.
10. Use the right tool for the job. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. Don't use a tool whose performance is not adequate for your work. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
11. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure. In addition, people with pacemakers should:
  - Avoid operating alone.
  - Do not use with power switch locked on.
  - Properly maintain and inspect to avoid electrical shock.
  - Any power cord must be properly grounded. Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.
12. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock. Do not use tool if plug is damaged.
13. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
14. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
15. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock. Do not use tool if cord is damaged.
16. When operating a power tool outdoors, use only a 3-wire grounded cord with a wire size of 14 gauge or larger. We recommend they be listed by Underwriters Laboratories (UL) in the USA or (CSA) Canadian Standards Association in Canada and be suitable for outdoor use. Cords marked for outdoor use are also suitable for indoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
17. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.
18. Use power tool ONLY on adequately rated circuits to avoid overheating of electrical systems.
19. Prevent accidental starting. Ensure switch is in the "OFF" position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch "ON" invites accidents.
20. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
21. Do not disassemble the heat gun.
22. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.
23. Never let the power tool operate while unattended and unplug when not in use or before servicing.
24. **EXPLOSION AND FIRE PREVENTION.** This power tool produces extremely high temperatures, it must be used with caution to prevent combustible material from igniting. To prevent potential explosion or fire, the following precautions should be followed:
  - Hidden areas such as behind walls, ceilings, floors, soffit boards and other panels may contain flammable materials that could be ignited by the power tool when working in these locations. The ignition of these materials may not be readily apparent and could result in property damage and injury to persons.
  - DO NOT use this power tool on hollow surfaces such as outdoor siding, walls, soffits, panels and partitions, etc. Areas like this often contain

# IMPORTANT SAFETY INFORMATION

flammable materials such as dust, wood chips, insulation, rodent nests and other debris which could accidentally ignite. Use your heat gun for stripping paint from solid woodwork with ins and outs such as solid interior trim, moulding, turnings, doors, balusters and porch trim, etc.

- When working in these locations, keep the power tool moving in a back-and-forth motion. Lingering or pausing in one spot could ignite the panel or the material behind it.
- Use extreme caution if the other side of the material being scraped is inaccessible, such as house siding. The hidden side could catch on fire if it becomes too hot. Some buildings contain highly flammable materials behind siding, floors, fascia, soffit boards and other panels. Check these areas before applying heat and do not use a heat tool if flammable materials are present or if you are unsure of the hidden material.
- When working with plastics, varnish, or similar materials, gases develop that are easily flammable and can lead to explosions.
- Do not use near surfaces with cracks or near metal pipes or flashing. Heat may be conducted behind the work surface and ignite hidden material. The ignition of hidden materials may not be readily apparent and can result in property damage and injury.
- Do not use power tools in the presence of flammable liquids or gases.
- Do not use near combustible materials such as dry grass, leaves, and paper which can scorch and catch fire.
- The nozzle becomes very hot. Do not lay the heat gun on flammable surfaces when operating the gun or immediately after shutting the gun off. Always set the gun on a flat, level surface so that the nozzle tip is directed upwards and away from the supporting surface.
- Do not point the power tool at people or animals. The intense heat can injure them.
- NEVER direct tool at clothing, hands or other body parts. NEVER USE AS A HAIR DRYER.
- This power tool emits high temperature heat at the nozzle. Keep hands and body out of the heated air stream and never grasp the power tool by the nozzle. Wearing protective gloves and safety glasses is recommended.
- NEVER touch work surface with nozzle. Keep at least 1" away.
- Do not heat chemicals. Avoid the hazards of ignition or the release of harmful vapors.
- Do not use the Heat Gun on glass.
- Always hold tool by the handle or the included stand. NEVER touch the nozzle opening or nozzle shield until the tool is cool.

- Tools and paint scrapings become very hot. To avoid burns, use work gloves when scraping.
- Always treat the hot air units with the same respect as an open flame.
- Because this power tool has the appearance of a household hair dryer, keep out of the reach of children and advise other persons having access to it of its high heat capabilities.
- **WARNING:** With a heat gun, as with all other tools, ALWAYS KEEP A FIRE EXTINGUISHER HANDY and be sure to observe sensible fire precautions.

25. **LEAD POISONING PREVENTION.** Extreme care should be taken when stripping paint. The peelings, residue and vapors of paint may contain lead, which is poisonous. Any paint applied to homes before 1950 is likely to contain lead. Any paint manufactured before 1977 may contain lead. Once the paint is deposited on surfaces, hand-to-mouth contact can result in the ingestion of lead. Exposure to even low levels of lead can cause irreversible brain and nervous system damage. Young and unborn children are particularly vulnerable to lead poisoning. Before beginning any paint removal process you should determine whether the paint you are removing contains lead. This can be done by your local health department or by a professional who uses a paint analyzer to check the lead content of the paint to be removed. Lead-based paint should only be removed by a professional and should not be removed using a heat gun. To prevent potential lead poisoning, the following precautions should be followed:
- Move the work piece outdoors. If this is not possible, keep the work area well ventilated. Open the windows and put an exhaust fan in one of them. Be sure the fan is moving the air from inside to outside.
  - Remove or cover any carpets, rugs, furniture, clothing, cooking utensils and air ducts.
  - Place drop cloths in the work area to catch any paint chips or peelings. Wear protective clothing such as extra work shirts, overalls and hats.
  - Work in one room at a time. Furnishings should be removed or placed in the center of the room and covered. Work areas should be sealed off from the rest of the dwelling by sealing doorways with drop cloths.
  - Children, pregnant or potentially pregnant women and nursing mothers should not be present in the work area until the work is done and all cleanup is complete.
  - Wear a dust respirator mask of a dual filter respirator mask for dust and fumes which has been approved by the Occupational Safety and Health Administration (OSHA) the National Institute of Safety and Health (NIOSH), or the

## OPERATION

heating element.

8. Tip: Operate the heat gun in the "I" position (Cold) for two - three (2-3) minutes before switching to "OFF" position. This allows the heat gun to cool down and the nozzle to become cool to the touch.
9. Move switch to "OFF" position.

**NOTE:** For the best operating results, perform a trial test on all materials.

**NOTE** Always set the heat gun upright after it is turned off, either for a short break or for storage. Avoid laying the unit on the side after shutdown. The heat will remain in the unit and cooling will take longer. Store the unit only after the nozzle is cool. Unplug the unit before storing to prevent accidental startup.

## PAINT STRIPPING

1. To strip paint, turn heat gun on and hold it about one (1) inch from the surface being stripped. Proper distance and speed of stripping should be determined by experience. It is best to hold the gun further from the surface and to move forward slowly. Slower speed is made up for by the wider softened areas. Heat will also penetrate deeper.
2. Regulate the outlet temperature by using the variable temperature control knob. Try different settings to find the best result with the paint you are stripping.
3. As paints starts to blister and bubble, move gun slowly and steadily across the

surface. Follow closely with a scraping knife (a two (2) inch wall scraper works best) to remove the loosened paint. To increase the speed of stripping the paint, preheat the scraper as you move along the work surface with the heat gun.

4. When stripping paint from grooves in moulding, you may need to devise your own scraping tools. Many people use old screwdrivers with ground-down blades and linoleum knives to do the job.
5. When the job is completed, move power switch to "I" position. Operate blower for a few minutes on cool.

## CONTROLS AND COMPONENTS



1. Three (3) Setting Power Switch
2. Variable temperature control knob
3. Power Cord

## OPERATION

**▲WARNING** READ ALL WARNINGS IN THIS MANUAL BEFORE OPERATING THIS TOOL.

### USING THE HEAT GUN

1. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
2. Plug heat gun into property rated outlet.
3. With the power switch in the "OFF" position, familiarize yourself with handling the heat gun. Find the switch and air intake vent.
4. To use the cool blower feature, move power switch to "I" position.
5. Move power switch to "II" position. Heat gun will increase and reach operating temperature in a few minutes.

**NOTE** Smoke may appear during the initial start up due to the burning of manufacturing oils. The smoke should disappear in less than a minute.

6. To adjust temperature, turn variable temperature control knob to desired position (clockwise for higher temperature and

counterclockwise for lower temperature). To obtain maximum heat output, turn the variable temperature control knob to the full clockwise position (+).

**▲NOTICE** If the blower motor in the heat gun does not turn on when the switch is set to "II", turn the switch OFF immediately. The heating element will burn out if it is not cooled by the blower.

**▲NOTICE** Do not block the air intake openings opposite the adjustable intake cover. The heating element will burn out if too much air intake is blocked.

7. For maximum heating, place the nozzle one (1) inch from the area to be heated.

**▲CAUTION** NEVER position the nozzle closer than one (1) inch to the workpiece, it could scorch or ignite. This will also cause premature failure of the

# IMPORTANT SAFETY INFORMATION

- United States Bureau of Mines. These masks and replaceable filters are readily available at major hardware stores. Be sure that the mask fits properly. Beards and facial hair may keep masks from sealing properly. Change the filters often. Disposable paper masks are not adequate.
- Use caution when operating the heat gun. Keep the heat gun moving as excessive heat will generate fumes which can be inhaled by the operator.
  - Keep food and drink out of the work area. Wash hands, arms and face and rinse mouth before eating or drinking. Do not smoke or chew gum or tobacco in the work area.
  - NEVER breathe or swallow lead based paint in any form.
  - Clean up all removed paint and dust by wet mopping the floors. Use a wet cloth to clean all walls, sills and any other surface where paint dust is clinging. Do not sweep, dry dust or vacuum. Use a high phosphate detergent of trisodium phosphate (TSP) to wash and mop areas.
  - At the end of each work session, put the paint chips and debris in a double plastic bag, close it with tape or twist ties and dispose of properly.
  - Remove protective clothing and work shoes in the work area to avoid carrying dust into the rest of the building. Wash work clothes separately. Wipe shoes off with a wet rag and then wash it with the work clothes. Wash hair and body thoroughly with soap and water.
  - Failure to follow adequate safety precautions when working with lead paint could result in lead poisoning.
26. Disconnect the plug from the power source before making any adjustments or changing accessories. Such preventive safety measures reduce the risk of starting the power tool accidentally.
27. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
28. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
29. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
30. Store idle equipment. Disconnect the tool from the power supply when not in use. Store in a dry location to inhibit rust. Always lock up tools and keep out of reach of children and other untrained persons. Switch off all unused electrical tools when stored. Disconnect battery from unit. Tools are dangerous in the hands of untrained users.
- WARNING:** Some dust, peelings, residue and vapors caused by paint removal activities contain chemicals known to the State of California to cause birth defects or other reproductive harm. An example of a chemical would be lead from lead-based paints (do not use a heat tool to remove lead-based paint). Your risk from exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
**⚠ ADVERTENCIA:** Cáncer y daños en órganos reproductivos – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

# GROUNDING

**▲WARNING:** Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

## GROUNDED TOOLS: TOOLS WITH THREE PRONG PLUGS

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. (See Figure A.)
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. (See Figure A.)
3. Your tool must be plugged into an appropriate outlet, properly installed and

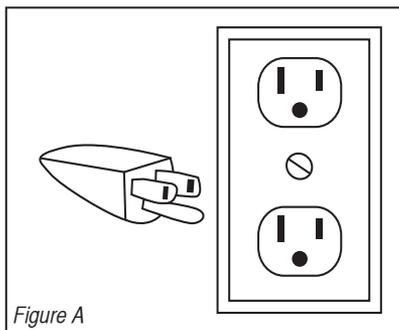


Figure A

grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. (See Figure A)

## DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

1. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. (See Figure B.)
2. Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration. (See Figure B.)

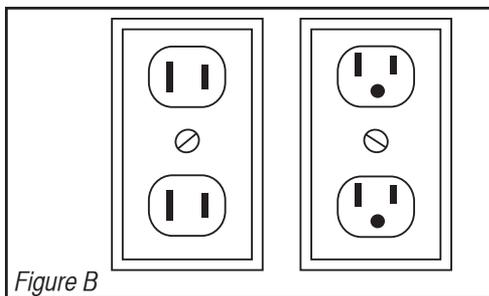


Figure B

## EXTENSION CORDS

Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

Always attach grounded (3-prong) extension cords to grounded (3-hole) outlets. If

you must use an extension cord, be sure that the gauge is large enough to carry the amount of current necessary for your power tool. If not, your tool may experience a loss of power, excessive voltage drop or overheating. The smaller the gauge number, the heavier the cord (see table below).

# GROUNDING

## RECOMMENDED SIZES OF EXTENSION CORDS FOR 120 VOLT AC 60 HZ TOOLS

CURRENT RATINGS IN AMPS		CONDUCTOR SIZE IN A.W.G.			
MORE THAN	MORE THAN	25 ft.	50 ft.	100 ft.	150 ft.
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	NOT RECOMMENDED	

## SYMBOL DEFINITIONS

**IMPORTANT:** Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

Symbol	Name	Explanation
V	Volts	Voltage (Potential)
A	Amperes	Current
Hz	Hertz	Frequency (Cycles per Second)
W	Watt	Power
Kg	Kilograms	Weight
	Alternating Current	Type of Current
	Direct Current	Type of Current
	Alternating or Direct Current	Type of Current
	Earthing Terminal	Grounding Terminal
	Class II Construction	Denotes Double Insulation
min	Minutes	Time
s	Seconds	Time
∅	Diameter	Size of Drill Bits, Grinding Wheels, etc.
n <sub>0</sub>	No load speed	No-load Rotational Speed
.../min	Revolutions per Minute	Revolutions, Surface Speed, Strokes, etc. per Minute
1,2,3,...	Ring Selector Settings	Speed, Torque or Position Settings