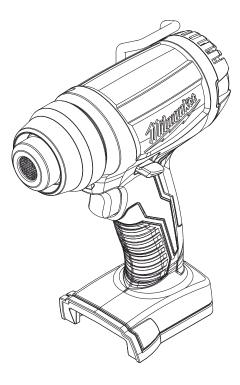


**OPERATOR'S MANUAL** 



Cat. No. 2688-20

# M18<sup>™</sup> COMPACT HEAT GUN



WARNING To reduce the risk of injury, user must read and understand operator's manual.

# GENERAL POWER TOOL SAFETY WARNINGS

AWARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

# WORK AREA SAFETY

- •Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- •Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- •Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

# ELECTRICAL SAFETY

- 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.
- Indoor Use. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

# PERSONAL SAFETY

- •Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- •Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- •Prevent unintentional starting. Ensure the 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.
- •Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- •Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- •If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
- •Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

# POWER TOOL USE AND CARE

- •Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- •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.
- •Disconnect the plug from the power source and/ or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- •Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- •Maintain power tools and accessories. 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.
- •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.
- •Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

# BATTERY TOOL USE AND CARE

- •Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- •Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- •When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- •Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- •Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.

•Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 265°F (130°C) may cause explosion.

•Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

# SERVICE

 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.
 Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.

# SPECIFIC SAFETY RULES FOR HEAT GUNS READ THESE INSTRUCTIONS

•Know your work environment. 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 an alternate method. Pausing or lingering in one spot may ignite the panel or the material behind it. Keep heat gun moving to avoid excessive temperatures.

- •Do not direct the heat gun air airflow at clothing, hair or other body parts. Do not use as a hair dryer. Heat guns can produce 1100°F (593°C) or more of flameless heat at the nozzle. Contact with the air stream could result in personal injury.
- •Do not use near flammable liquids or in explosive atmospheres, such as in the presence of 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.
- •Shield materials around the heated area to prevent property damage or fire.
- •Keep a fire extinguisher nearby. Heat guns may ignite flammable materials left in the work area.
- •WARNING! Hot Surfaces. Always hold the heat gun by the plastic enclosure. Do not touch nozzle, 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 flammable materials from igniting.
- •Do not cut off airflow by placing nozzle too close to workpiece. Keep intake vents clean and clear of obstructions. Restricting airflow may cause the heat gun to overheat.
- •Place the heat gun on a stable, level surface when not hand held.
- Do not leave the heat gun unattended while running or cooling down. Inattention invites accidents.
- •Store indoors in a dry location. Do not expose to rain or moisture.
- Do not direct airflow directly on glass. The glass may crack and could result in property damage or personal injury.
- Maintain labels and nameplates. These carry important information. If unreadable or missing, contact a MILWAUKEE service facility for a free replacement.
- AWARNING Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: •lead from lead-based paint

•crystalline silica from bricks and cement and other masonry products, and

•arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

# IMPORTANT SAFETY INSTRUCTIONS FOR REMOVING PAINT

AWARNING 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.

# Persons removing paint should follow these guidelines:

•Work in a well ventilated area. If possible, move the workpiece outdoors. If working indoors, open windows and place 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 cover any carpets, rugs, furniture, clothing, cooking utensils and air ducts to prevent property damage from the paint peelings.
- •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 or potentially 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. Be sure the mask fits. Beards and facial hair may keep masks from sealing properly. Change filters often. DISPOSABLE PAPER MASKS ARE NOT ADEQUATE.
- •Use caution when operating the heat gun. Keep the heat gun moving to prevent excessive temperatures. Excessive heat can cause paint and other

materials to burn and cause fumes, which may be inhaled by the operator.

- •Keep work environment clean. Keep food and drink away from work area. Wash hands, arms and face and rinse mouth before eating and drinking. Do not smoke, or chew gum or tobacco in the work area. Paint scrapings and dust created from removing paint may contain chemicals that are hazardous.
- •Clean up all paint scraping and dust. DO NOT SWEEP, DRY DUST OR VACUUM. 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.

# SAVE THESE INSTRUCTIONS SYMBOLOGY

Direct Current

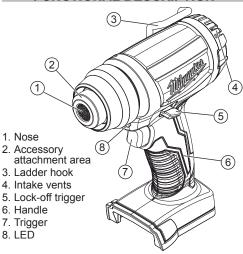
Volts

UL Listing for Canada and U.S.

# SPECIFICATIONS

Cat. No.	
Volts	18 DC
Battery Type	M18™
Charger Type	M18™
Temperature	875° F (468° C)
Airflow	6 CFM
Recommended Ambient	
Operating Temperature	0°F to 125°F

## FUNCTIONAL DESCRIPTION



# ASSEMBLY

AWARNING Recharge only with the charger specified for the battery. For specific charging instructions, read the operator's manual supplied with your charger and battery.

# Removing/Inserting the Battery

To **remove** the battery, push in the release buttons and pull the battery pack away from the tool.

AWARNING Always remove battery pack before changing or removing accessories.

To **insert** the battery, slide the pack into the body of the tool. Make sure it latches securely into place.

AWARNING Only use accessories specifically recommended for this tool. Others may be hazardous.

To reduce the risk of injury, do not remove or attach accessory tips until tool has cooled to room temperature.

## Installing/Removing Nozzles

- 1. To **install**, slide the nozzle onto the heat gun nose and twist it into place.
- 2. Adjust distance from work and length of application as necessary.
- 3. To **remove**, allow tool to cool to room temperature, then twist and pull the nozzle away from tool.

## **OPERATION**

AWARNING unplug tool before attaching or removing accessories or making adjustments. Use only specifically recommended accessories. Others may be hazardous.

To reduce the risk of injury, always wear safety goggles or glasses with side shields.

To reduce the risk of injury, do not remove or attach accessory tips until tool has cooled to room temperature.

## **Turning On/Off**

The proper amount of heat for each application depends on the distance between the nozzle and workpiece, and the length of time heat is applied. Experiment with scrap materials. Be cautious when working until the proper combination of distance and time of application has been obtained. Use a back and forth motion when applying heat unless concentrated heat is desirable. When done, place the tool upright on a flat surface, so the heat gun won't tip to allow the nozzle to cool.

- 1. To turn the tool **ON**, press the lock-off trigger down and pull the trigger.
- 2. To turn the tool **OFF**, release the trigger.

# APPLICATIONS

AWARNING To reduce the risk of injury, do not remove or attach accessory tips until tool has cooled to room temperature.

#### Types of Nozzles

- •Hook Nozzle Surrounding heat for thin pipe welding, soft soldering copper pipes, tube shaping and shrinking of shrink tubes.
- Air Reduction Nozzle Intensified, spot directed heat for corners, plexiglas bending and soldering.
  Deflector Nozzle - Deflected heat protects glass
- Deflector Nozzle Deflected heat protects glass window panes when removing paint and putty.
- Air Spreader Nozzle Directs heat over large areas for drying, removing paint, floor coverings, and vinyl tops.

#### **Removing Paint**

**WARNING!** Read safety instructions for removing paint before proceeding with paint removal.

- Place nozzle approximately 1" away from work surface.
- Pass nozzle back and forth over a small area of workpiece.
- 3. When paint starts to blister, then remove heat.
- 4. Remove paint using a sharp-edged putty knife.

#### Heat Shrinking

- 1. Attach an air reduction or hook nozzle to the heat gun.
- To heat shrink tubing, apply heat to the workpiece using a side to side motion until tubing has shrunk. Remove heat immediately.

## MAINTENANCE

AWARNING To reduce the risk of injury, always unplug the charger and remove the battery pack from the charger or tool before performing any maintenance. Never disassemble the tool, battery pack or charger. Contact a MILWAUKEE service facility for ALL repairs.

#### Maintaining Tool

Keep your tool, battery pack and charger in good repair by adopting a regular maintenance program. Inspect your tool for issues such as undue noise, misalignment or binding of moving parts, breakage of parts, or any other condition that may affect the tool operation. Return the tool, battery pack, and charger to a MILWAUKEE service facility for repair. After six months to one year, depending on use, return the tool, battery pack and charger to a MILWAUKEE service facility for inspection.

If the tool does not start or operate at full power with a fully charged battery pack, clean the contacts on the battery pack. If the tool still does not work properly, return the tool, charger and battery pack, to a MILWAUKEE service facility for repairs.

AWARNING To reduce the risk of personal injury and damage, never immerse your tool, battery pack or charger in liquid or allow a liquid to flow inside them.

#### Cleaning

Clean dust and debris from vents. Keep handles clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean, since certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around tools.

#### Repairs

For repairs, return the tool, battery pack and charger to the nearest service center.