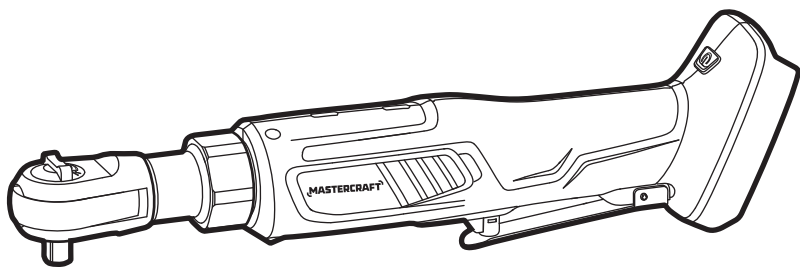


MASTERCRAFT™/MC

20V MAX* LITHIUM-ION CORDLESS IMPACT RATCHET

054-4273-8



IMPORTANT:

Read and understand this instruction manual thoroughly before using the product.

INSTRUCTION MANUAL

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NOTE:

If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.



SAVE THESE INSTRUCTIONS

- This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.

TECHNICAL SPECIFICATIONS

Rated voltage	20 V d.c.
No-load speed	0-250 RPM
Maximum torque (normal mode)	41 ft-lb (55 Nm)
Maximum torque (impact mode)	48 ft-lb (65 Nm)
Drive	3/8" (10 mm) Square
Impact ratchet weight (without battery)	2 lb 10 oz (1.2 kg)
Batteries	20V max* (1.5 Ah) Li-ion (054-3124-0; sold separately) 20V max* (2.0 Ah) Li-ion (054-7553-4; sold separately) 20V max* (4.0 Ah) Li-ion (054-7557-6; sold separately) 20V max* (5.0 Ah) Li-ion (054-2434-8; sold separately)

* Maximum battery voltage without workload; with workload nominal voltage is 18V.

Recommend using tool with Mastercraft® 20V max* Lithium-Ion 4.0 Ah battery (054-7557-6; sold separately) for optimal performance.

SAFETY GUIDELINES:



WARNING!

Safety symbols in this instruction manual are used to flag possible dangers. The safety symbols and their explanations require your full understanding. The safety warnings do not, by themselves, eliminate any danger, nor are they substitutes for proper accident prevention measures.



WARNING!

This safety alert symbol indicates caution, warning, or danger. Failure to obey a safety warning can result in serious injury to yourself or others. To reduce the risk of injury, fire, or electric shock, always follow the safety precautions.

KNOW YOUR TOOL

To operate this tool, carefully read this instruction manual and all labels affixed to the cordless impact ratchet before using. Keep this manual available for future reference.

IMPORTANT

This tool should only be serviced by a qualified service technician. For more information, call the toll-free helpline at 1-800-689-9928.

READ ALL INSTRUCTIONS THOROUGHLY

SAVE THESE INSTRUCTIONS

GENERAL POWER TOOL SAFETY WARNINGS



WARNING!

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

- **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.
- **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.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **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.
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **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.

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 energising power tools that have the switch on invites accidents.
- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **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 jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery 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.
- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **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 behaviour 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 130 °C (265 °F) 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.

IMPACT RATCHET SAFETY WARNINGS

SAFETY INSTRUCTIONS FOR ALL OPERATIONS

- **Hold the power tool by insulated gripping surfaces when performing an operation where the fastener may contact hidden wiring or its own cord.** Fasteners contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.

ADDITIONAL SAFETY GUIDELINES FOR CORDLESS IMPACT RATCHET

- **To reduce the risk of electric shock or damage to the charger and battery, use only the Mastercraft® batteries and charger listed.**

BATTERY PACK

054-3124-0, 054-7553-4,
054-7557-6, 054-2434-8

CHARGER

054-3126-6, 054-7559-2

- **Use clamps or another practical way to support and secure the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Avoid overload working.** Do not always use the impact model to raise the torque.
- **Do not touch bits, sockets, ratchet component and workpiece immediately after use.** They may be very hot and could burn skin, wear gloves when touching them after use.
- **Do not drill, fasten or break into existing walls or other blind areas where electrical wiring may exist.** If this situation is unavoidable, disconnect all fuses or circuit breakers feeding the worksite.
- **Wear safety goggles or eye protection when using this tool.**
- **Wear ear protectors when using the tool for extended periods.** Prolonged exposure to high intensity noise can cause hearing loss.

- **Avoid accidental starting.** Be sure that the lock button is on the “off” position before inserting the battery pack. Carrying appliances with your finger on the switch or inserting the battery pack into an appliance with the switch on invites accidents.
- **Remove the battery pack before changing accessories.** Accidental starting may occur because battery appliances with a battery inserted are in the operative condition.
- **Be prepared for a reaction torque when “seating” or removing a fastener.** The tool housing may tend to twist in the opposite direction of the bit rotation when “seating” or removing a fastener, depending on the torque setting of the tool.
- **Do not use worn or damaged impact sockets and accessories.** When installing an accessory, insert the impact socket well onto the anvil. Be sure that the anvil has locked onto the socket correctly.
- **For best results, your battery tool should be stored and used in a location where the temperature is more than 5°C (41°F) but less than 40°C (104°F).** Do not store outside or in vehicles.
- **The label on your tool may include the following symbols. The symbols and their definitions are as follows:**

V Volts

A Amperes

Hz Hertz

W Watts

min Minutes

~ Alternating current

— or d.c Direct current

n_0 No-load speed



..... Class II Construction

.../min Revolutions or reciprocation per minute



..... Grounding terminal

BPM Beats per minute

RPM Revolutions per minute



..... WARNING – To reduce the risk of injury, user must read instruction manual.



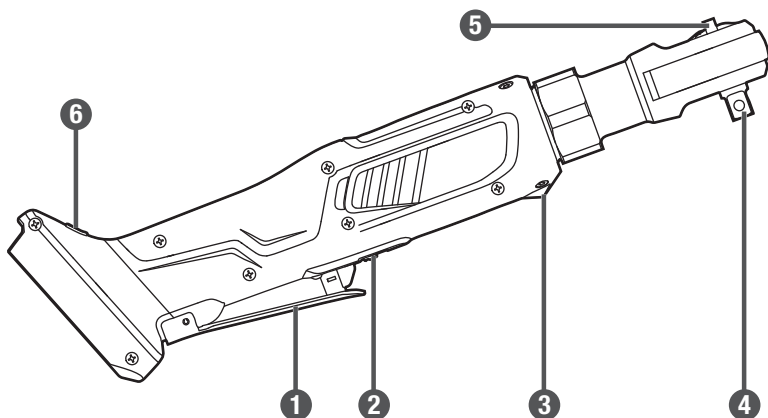
..... WARNING – To reduce the risk of injury always wear eye protection.



..... WARNING – To reduce the risk of injury always wear ear protection.

PACKAGE CONTENTS:

Cordless impact ratchet, instruction manual.

KEY PARTS DIAGRAM

No.	Description
1	Paddle switch
2	Lock button
3	LED worklight

No.	Description
4	3/8" (10 mm) square anvil
5	Forward/reverse toggle
6	Impact/normal mode button

Before attempting to use this tool, become familiar with all of its operating features and safety requirements. For optimum performance and safety, read the following operating instructions carefully before using.

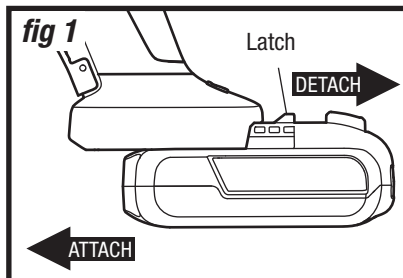
**WARNING!**

- Remove the cordless impact ratchet from the package and examine it carefully. Do not discard the carton or any packaging material until all parts have been examined.
- If any part of the impact ratchet is missing or damaged, do not attach the battery pack to the tool or use the tool until the part has been repaired or replaced. Failure to heed this warning could result in serious injury.
- Do not allow familiarity with the cordless impact ratchet to cause a lack of alertness. A fraction of a second of carelessness is enough to cause severe injury.
- Carefully read the instruction manuals for your Mastercraft® 20V max Lithium-ion battery and Mastercraft® 20V max Lithium-ion charger for safety and operation instructions.

ASSEMBLY INSTRUCTIONS

TO ATTACH BATTERY PACK (fig 1)

1. Turn off the lock button.
2. Align the raised portion on the battery pack with the groove on the bottom of the tool, then slide the battery pack into the body of the tool.
3. Make sure that the battery latches securely.

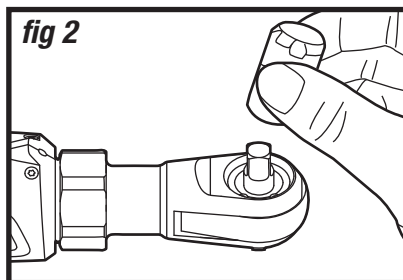


TO DETACH BATTERY PACK (fig 1)

1. Make sure that the lock button is turned off.
2. Depress the battery-release button located on the front of the battery pack to release the battery pack.
3. Pull the battery pack forward to remove it from the tool.

INSTALLING AND REMOVING A SOCKET (fig 2)

1. Make sure that the lock button is turned off.
2. To install a socket, slide it onto the drive anvil and simply push it until it locks in place.
3. To remove a socket, pull it off the anvil.



NOTICE: When placing a battery pack on the tool, be sure that the raised rib on the battery pack aligns with the groove on the cordless impact ratchet and the latches snap into place properly. Improper assembly of the battery pack can cause damage to internal components.



CAUTION!

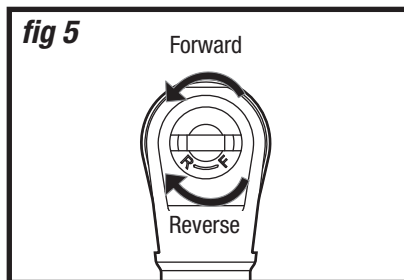
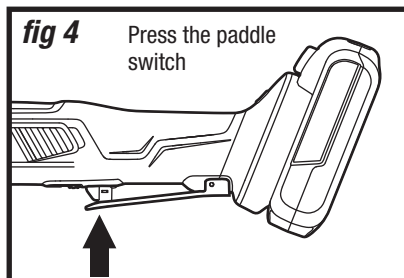
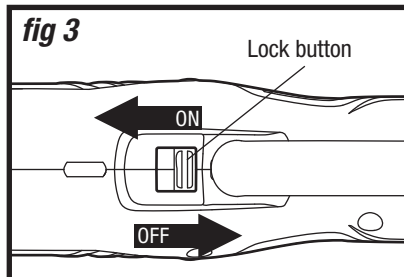
- Avoid the possibility of accidental starting. Always make sure that the lock button is turned off when you are attaching the battery pack or performing other adjustments to the tool.
- Bits, sockets and tools get hot during operation. Wear gloves when touching them after use.
- Only use sockets designed for impact ratchet. Other sockets could break and result in user injury. Inspect a socket prior to use to ensure that they have no cracks or other visible damage.

OPERATING INSTRUCTIONS**TURNING THE IMPACT RATCHET ON AND OFF (fig 3 & 4)**

1. Release the lock button by pushing it forward.
2. To start the tool, press the paddle switch.
3. To stop the tool, release the paddle switch.
4. Lock the impact ratchet off by moving the lock button back.

FORWARD/REVERSE TOGGLE (fig 5)

1. For forward rotation, rotate the forward/reverse toggle counter-clockwise.
2. For reverse rotation, rotate the forward/reverse toggle clockwise.



NOTICE: Check the direction of rotation before use.

LED WORKLIGHT (fig 6)

The LED worklight will illuminate when the paddle switch is pressed. This provides additional light on the surface of the workpiece for operation in lower light situations. The LED worklight will remain on for 10 seconds after the paddle switch is released.

IMPACT/NORMAL MODE SELECTION (fig 7)

1. Move the lock button to turn the tool on, then press the impact/normal mode button.
2. When the green light is on, the tool is in impact mode; when the green light is off, the tool is in normal mode.

TIGHTENING HEX BOLTS AND NUTS (fig 8)

1. Install the correct socket to match the hex bolt or nut.
2. Apply just enough pressure to keep the socket engaged on the hex bolt or nut.
3. Position the forward/reverse toggle in the correct position for forward rotation.
4. Initially apply minimal pressure to the paddle switch. Increase the speed only when full control can be maintained.

LOOSENING HEX BOLTS AND NUTS (Fig 8)

1. Install the correct socket to match the hex bolt or nut.
2. Apply just enough pressure to keep the socket engaged on the hex bolt or nut.
3. Position the forward/reverse toggle in the correct position for reverse rotation.
4. Initially apply minimal pressure to the paddle switch. Increase the speed only when full control can be maintained.

fig 6

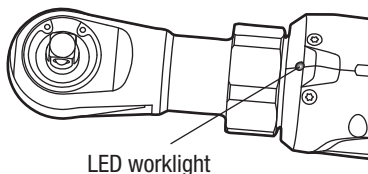


fig 7

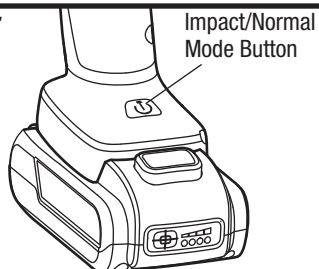
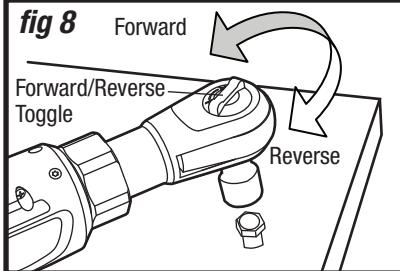


fig 8



NOTICE:

- Mode selection requires that the lock button is in the ON position.
- The impact/normal mode setting won't change after you turn off the tool or change the battery pack. Always check to make sure that the tool is in the desired mode when you start the tool.
- Do not use the impact mode for long periods of continuous working, this can reduce the life of the impact ratchet.
- Do not over-tighten, as the force of the auto ratchet can break the fastener. Keep the socket at a right angle to the fastener to avoid damaging the fastener head.

MAINTENANCE

BEFORE EACH USE:

The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air.

1. Inspect the cordless impact ratchet, the paddle switch, and the battery for damage.
2. Check for damaged, missing, or worn parts.
3. Check for loose screws, misalignment or binding of moving parts, or any other condition that may affect the operation.
4. If abnormal vibration or noise occurs, turn the cordless impact ratchet off immediately, and have the problem corrected before further use.



WARNING!

- To avoid personal injury, always remove the battery pack from the tool when cleaning or performing any maintenance.
- Do not let brake fluids, gasoline, petroleum-based products, penetrating oil, etc. come into contact with plastic parts. These substances contain chemicals that can damage, weaken, or destroy plastic.
- When servicing, use only identical replacement parts. The use of any other parts may create a hazard or cause damage to the product.
- Use only accessories that are recommended for this impact ratchet. Accessories that may be suitable for one tool may become hazardous when used with another tool.
- To ensure safety and reliability, all repairs should be performed by a qualified service technician.

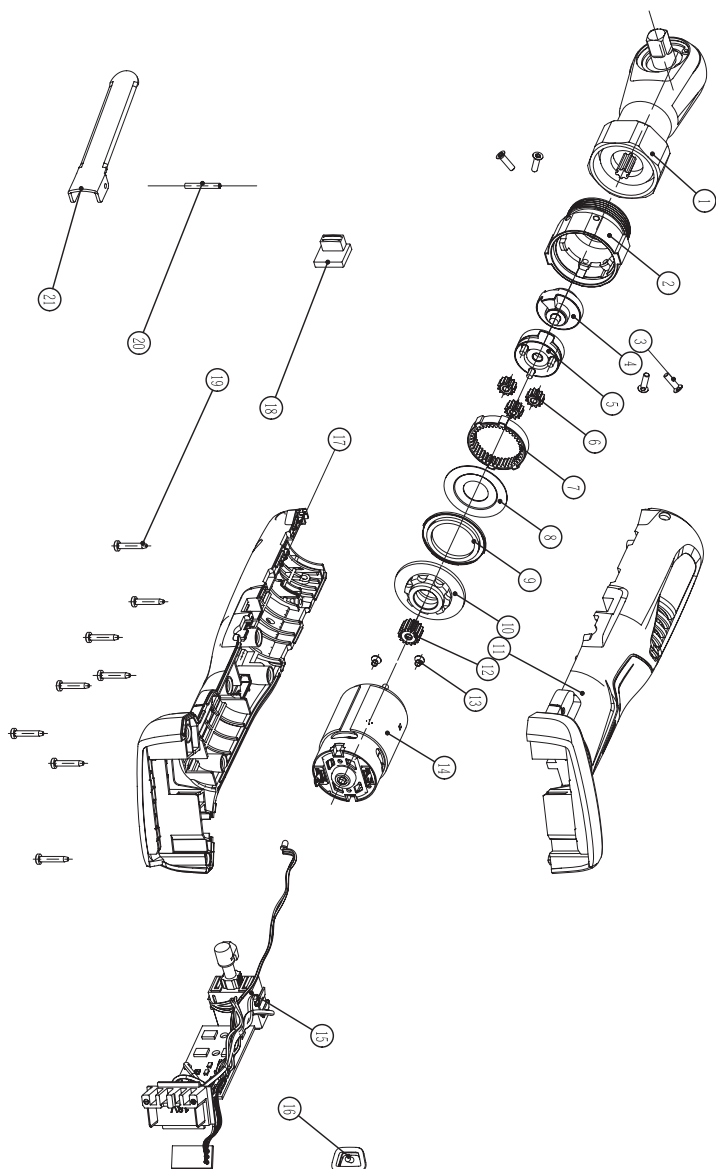
TROUBLESHOOTING

Problem	Possible Causes	Solution
The impact ratchet does not work.	The battery is depleted.	Charge the battery.
The socket cannot be installed.	The socket is not the proper size.	Use with the sockets suitable for a 3/8" (10 mm) square drive.
LED light is flashing.	The tool is overheating.	Allow the tool to cool to room temperature.
Ratchet component is overheating.	Continuous heavy use is causing the tool to overheat.	Allow the tool to cool to room temperature.

If the problem remains unsolved after performing the checks described above, call the toll-free helpline at 1-800-689-9928.

PARTS LIST

EXPLODED VIEW



No.	Part No.	Description
1	2824286000	Ratchet Assembly
2	3421726000	Gear Case
3	5620498000	Screw
4	3520674000	Impact Block
5	3520873000	Carrier
6	3520750000	Planet Gear
7	3520872000	Ring Gear
8	5650524000	Washer
9	3128134000	Adjusting Sleeve
10	3421711000	Gear Case Cover
11	3321974000	Left Housing Assembly

No.	Part No.	Description
12	3520748000	Pinion
13	5620062000	Screw
14	2730231000	DC Motor
15	2830099000	Electric Assembly
16	3128135000	Button
17	3321973000	Right Housing Assembly
18	3127140000	Lock Button
19	5610013000	Screw
20	5670246000	Spring Pin
21	3705544000	Switch Trigger

If any parts are missing or damaged, or if you have any questions, please call the toll-free helpline at 1-800-689-9928.

This Mastercraft product is guaranteed **three (3) years from the date of original retail purchase** against defects in materials and workmanship, except for the following components:

- a) Component A: Batteries, chargers and carrying case, which are guaranteed for a period of 2 years from the date of original retail purchase against defects in workmanship and materials;
- b) Component B: Accessories, which are guaranteed for a period of 1 year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating there to.

These warranties are subject to the following conditions and limitations:

- a) a bill of sale verifying the purchase and purchase date must be provided;
- b) this warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial or rental purposes;
- c) this warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product which are expected to become inoperative or unusable after a reasonable period of use;
- d) this warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups or adjustments;
- e) this warranty will not apply where damage is caused by repairs made or attempted by others (i.e. persons not authorized by the manufacturer);
- f) this warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);
- g) this warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;

- h) this warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners; and
- i) this warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

Additional Limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

Notice to Consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

Made in China

Imported by

Mastercraft Canada Toronto, Canada M4S 2B8

