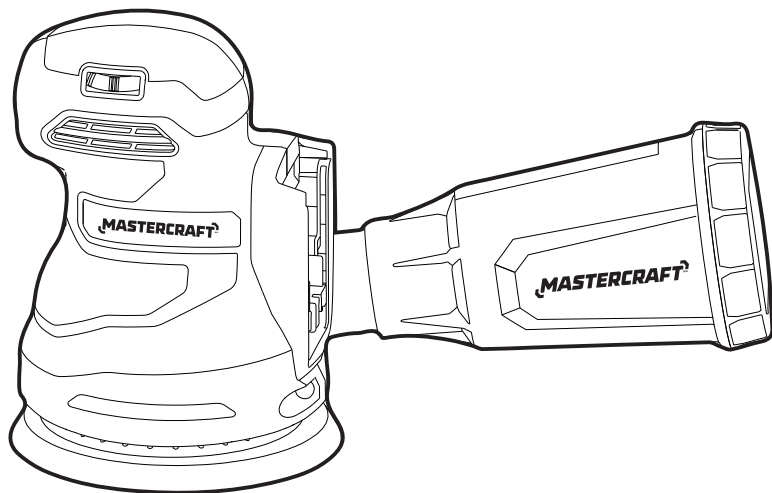


MASTERCRAFT™

5" (12.7 CM) RANDOM ORBIT SANDER

054-2440-2



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	20V d.c.
Pad Size	5" (127 mm)
No-load Speed	0-11000 OPM

Recommend using tool with Mastercraft® 20V max* Lithium-Ion 4.0 Ah battery (054-7557-6; sold separately) and higher capacity batteries 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 Random Orbit Sander before using. Keep this instruction 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 energizing 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.

ADDITIONAL SAFETY GUIDELINES FOR THE SANDER

- **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

 or d.c. Direct current

n_0 No-load speed



..... Class II Construction

.../min or ...min⁻¹ Revolutions or reciprocation per minute

OPM Oscillations per minute



..... WARNING – 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.

- **A suitable breathing respirator must be worn while sanding lead paint, some woods and metal to avoid breathing the harmful/toxic dust or air.**
- **Always wear safety goggles and a dust mask when sanding, especially when sanding overhead.**
- **The machine is not suitable for wet sanding.**
- **Do not use sanding paper that is larger than needed.** Extra paper extending beyond the sanding pad can cause serious lacerations.

- **Secure the workpiece.** A workpiece clamped with clamping devices or in a vice is held more securely than by hand.
- **Attach the dust canister to the tool and empty it frequently.** Do not throw sanding dust on an open fire, because materials in fine particle form may be explosive.



WARNING!

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

BATTERY PACK	CHARGER
--------------	---------

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

054-3126-6, 054-7559-2

- **For best results, your battery and tool should be charged, 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.

PACKAGE CONTENTS

Random orbit sander, microfilter dust canister, 2 sanding papers (80 grit) and instruction manual

KEY PARTS DIAGRAM

No.	Part
1	On/off switch
2	Sanding pad
3	Variable-speed dial
4	Microfilter dust canister

**WARNING!**

- Remove the random orbit sander 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 random orbit sander is missing or damaged, do not attach the tool to a power source 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 random orbit sander to cause a lack of alertness. A fraction of a second of carelessness is enough to cause severe injury.

TO ATTACH THE BATTERY PACK (fig 1)

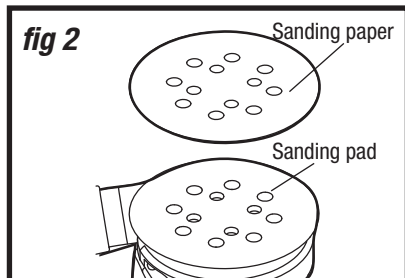
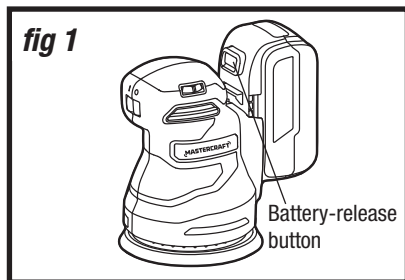
1. Make sure that the sander is switched off.
2. Align the raised rib on the battery pack with the grooves on the sander, and then slide the battery pack onto the sander.

TO REMOVE THE BATTERY PACK (fig 1)

1. Make sure that the sander is switched 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 out and remove it from the sander.

ATTACH THE SANDING PAPER (fig 2)

1. Remove the battery from the sander.
2. Place the sander upside down on a flat surface.
3. Remove any dust or debris from the sanding pad.
4. Align the holes of the sanding paper with the holes in the sanding pad and firmly press the sanding paper against the sanding pad to ensure a good attachment.
5. To change the sanding paper, merely peel off the old sanding paper, remove dust from the sanding pad, if necessary, and press the new sanding paper in place as described above.



NOTICE:

- In order for the dust extraction system to operate properly, the holes in the pad must align with holes in the sanding paper.



WARNING!

- Never attach the battery to the sander when you are assembling parts, making adjustments, installing or removing sanding paper, cleaning, or when it is not in use. Disconnecting the sander will prevent accidental starting, which could cause serious personal injury.

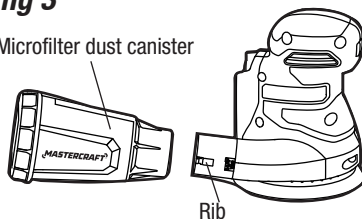
INSTALL THE MICROFILTER DUST CANISTER (fig 3)

Your sander is supplied with a dust canister to help you keep the working area clean. The dust canister is ideal for smaller jobs. For maximum efficiency, the dust canister should be emptied frequently during operation.

1. Remove the battery from the sander.
2. Align the slot on the dust canister with the rib on the tool, and then push the dust canister onto the tool until it locks into place.

fig 3

Microfilter dust canister

**REMOVE THE MICROFILTER DUST CANISTER (fig 3)**

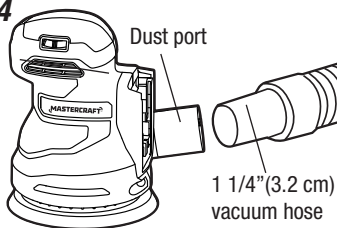
1. Remove the battery from the sander.
2. Simply pull the dust canister away from the tool.

ATTACH THE VACUUM HOSE (fig 4)

Directly attach the 1 1/4" (3.2 cm) vacuum hose to the dust port, and then connect the opposite end of the vacuum hose to a vacuum cleaner.

fig 4

Dust port

1 1/4" (3.2 cm)
vacuum hose

CLEAN AND EMPTY THE DUST CANISTER (fig 5)

1. Remove the dust canister from the tool.
2. Hold the dust-canister body and remove the microfilter by rotating it counter-clockwise.
3. Pour dust from the dust-canister body.
4. Knock excess dust out of the microfilter or remove dust with a soft brush. You may notice that all the dust may not come out of the microfilter. This will not affect sanding performance, but it will reduce dust collection efficiency.

SELECT THE RIGHT GRADE OF SANDING PAPER

Different grades of sanding paper can be purchased from the store where you purchased the tool. Available grades are: coarse, medium and fine. Use a coarse grit to sand down rough finishes, medium grit to smooth the work and fine grit to finish off.

It is best to make a trial run on a scrap piece of material to determine the optimum grades of sanding paper for a particular job.

fig 5a

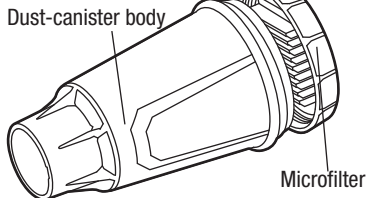
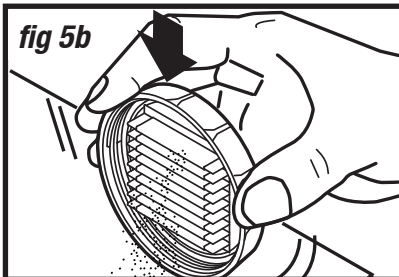


fig 5b



NOTICE:

- The microfilter should not be rinsed with water.

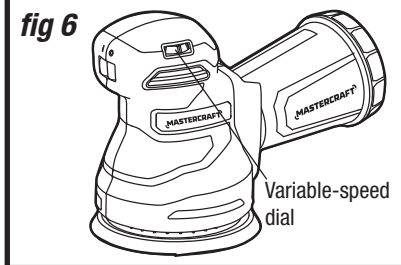


WARNING!

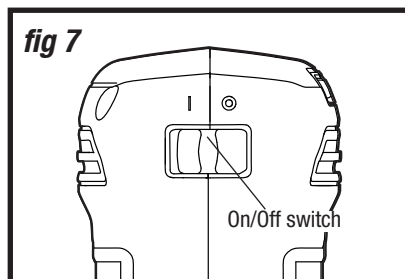
- Collected sanding dust from sanding surface coatings such as polyurethanes, linseed oil, etc., can self-ignite in the dust canister or elsewhere and cause fire. To reduce the risk of fire, always empty the dust canister frequently while sanding and never store or leave a sander without totally emptying its dust box. Also follow the recommendations of the coating manufacturers.

VARIABLE-SPEED DIAL (fig 6)

1. The variable-speed dial is used to adjust the speed of the sander.
2. Turn the dial to increase or decrease the speed of the tool.
3. Position "0" selects the slowest speed; position "5" selects the fastest speed. Adjust the speed for optimum performance.

**TURN THE SANDER ON AND OFF (fig 7)**

1. Attach the battery pack to the tool.
2. Start the sander by pushing the "on/off" switch to the "I" position.
3. Turn the sander off by pushing the "on/off" switch to the "O" position.

**SANDING**

This sander can be used for most sanding operations on materials such as wood, plastic, metal and painted surfaces. Do not use the sander for wet sanding.

1. Attach the battery pack to the sander.
2. Place the sander on the workpiece so that the sanding paper is fully in contact with the workpiece.
3. Start the sander.
4. For best sanding results, apply light pressure on the sander, but do not force the tool.
5. Move the sander slowly over the workpiece, making successive passes in parallel lines, circles, or crosswise movements. The removal rate and the sanding pattern are determined by the choice of sanding paper and the work surface.
6. Do not allow sanding on one spot too long, as the sander's rapid action may remove too much material and make the surface uneven.
7. Upon completion of the sanding operation, remove the sander from the workpiece, turn the sander off and wait until it comes to a complete stop before putting it down.

NOTICE: Applying additional pressure only slows the motor, rapidly wears sanding paper, and greatly reduces sander speed. Excessive pressure will overload the motor, possibly causing damage from motor overheating and can result in inferior work.

**WARNING!**

- Before attaching the battery pack to the sander, always check to be sure that the switch is in the off position. Failure to do so could result in accidental starting of the sander, causing possible serious injury.

MAINTENANCE

BEFORE EACH USE

1. Inspect the sander, the rocker switch and the accessories 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 tool off immediately and have the problem corrected before further use.
5. Detach the battery pack from the tool before cleaning or performing any maintenance. Using compressed air may be the most effective cleaning method. Always wear safety goggles when cleaning tools using compressed air.



WARNING!

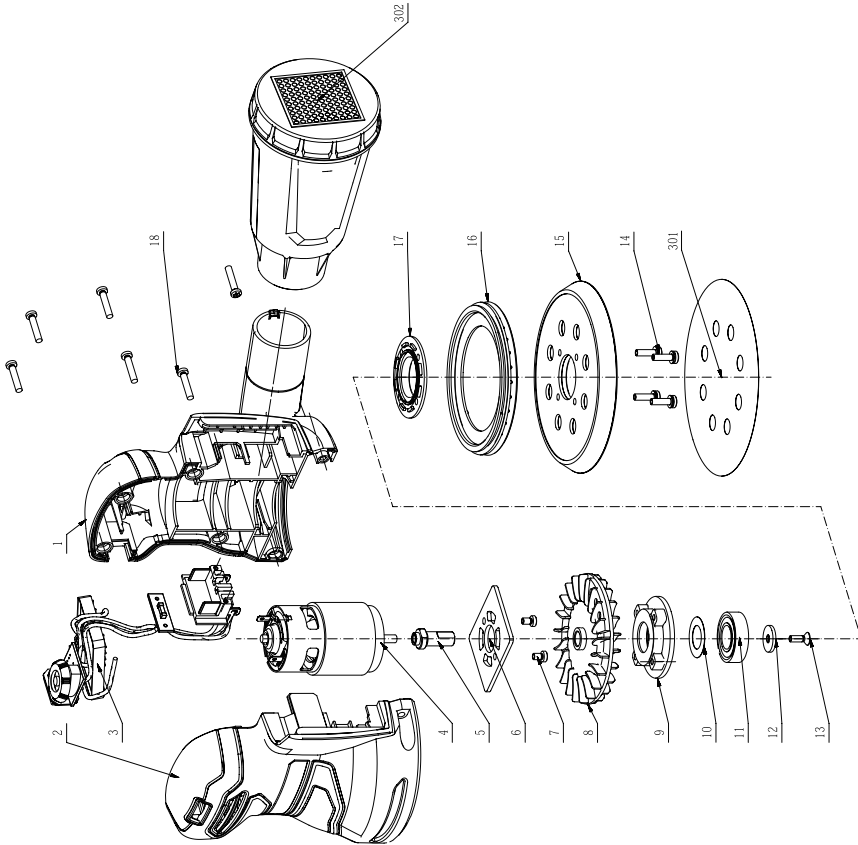
- Do not let brake fluids, gasoline, petroleum-based products, penetrating oil, etc., come into contact with plastic parts. These substances contain chemicals that can damage, weaken, or destroy plastic.
- When servicing, use only identical replacement parts. The use of any other parts may create a hazard or cause damage to the product.
- Use only accessories that are recommended for this sander by the manufacturer. 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 motor is overheating.	Be sure the cooling vents are free from dust and obstacles.	Clean and clear the vents. Do not cover the vents with your hand during operation.
The sander does not start.	The battery is depleted.	Charge the battery.
	The battery is overheated.	Cool the battery and restart the tool.
	The battery is overloaded.	Decrease the load on the tool and restart the tool.
Unsatisfactory sanding result.	The sanding paper is worn.	Replace with a new sanding paper.
	The sanding paper is not suitable for the workpiece.	Use the correct sanding paper.

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

EXPLODED VIEW



No.	Part No.	Description
1	3322857000	Right Housing
2	3322856000	Left Housing
3	2830768000	Electric Assembly
4	2730272000	DC Motor
5	3552714000	Output Shaft
6	3706330000	Motor Support
7	5620183000	Screw
8	3421967000	Dust Fan
9	3421968000	Bearing Holder
10	5650041000	Plain Washer

No.	Part No.	Description
11	5700018000	Ball Bearing
12	3700090000	Washer
13	5620069000	Screw
14	5620419000	Screw with Washer
15	3400153000	Base Pad
16	3128933000	Brake Ring
17	3421969000	Bearing Cover
18	5610248000	Tapping Screw
301	3810300000	Sanding Paper
302	2826581000	Dust Box Assembly

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 for a period of **3 years from the date of original retail purchase** against defects in workmanship and materials, 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 thereto.

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 that are expected to become inoperative or unusable after a seasonable 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