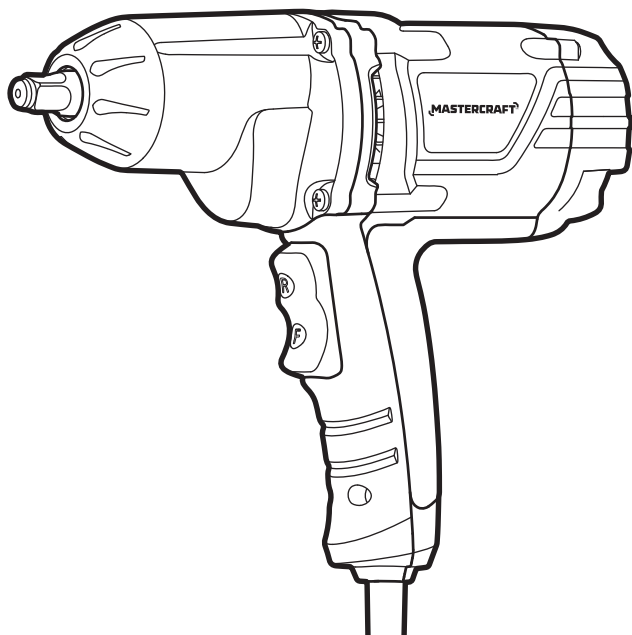


MASTERCRAFT™/MC

CORDED IMPACT WRENCH

054-4275-4



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

Input	8.5A
Rating	120V~, 60 Hz
No Load Speed	2100 RPM
Impacts Per Minute	2700 BPM
Socket Compatibility	1/2" (13 mm) square drive
Torque	350 ft-lb
Tool Weight	7 lb 8 oz (3.4 kg)

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 impact wrench 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 and instructions. Failure to follow the warnings and instructions 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 the 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 the 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 the 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 the tool while 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 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, clothing and gloves 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 that these are connected and properly used.** Use of these devices can reduce dust-related hazards.

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 more safely 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 the battery pack 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. 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, 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.

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.

SAFETY GUIDELINES FOR IMPACT WRENCH

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

== Direct current

no No-load speed



..... Class II Construction

.../min Revolutions or reciprocation per minute



..... Grounding terminal

BPM Beats 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.



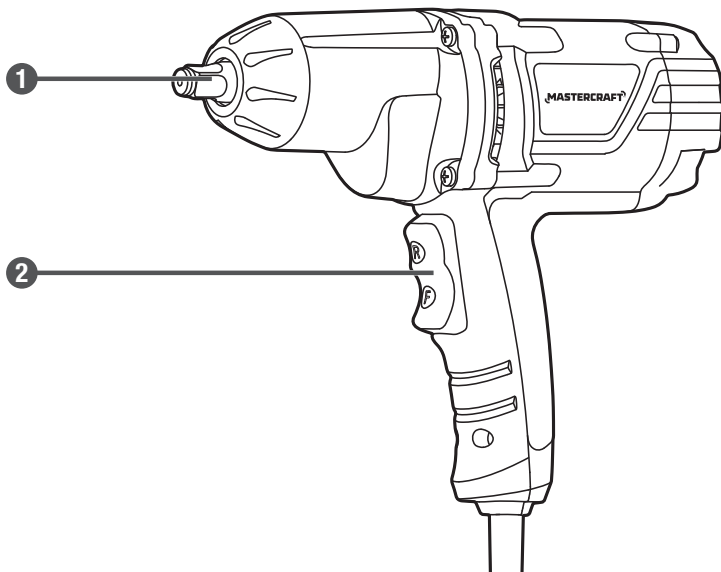
..... WARNING – To reduce the risk of injury always wear ear protection.

- **Do not use the power tool with a damaged cord.** Do not touch the damaged cord; turn off the tool and pull the plug from the outlet if the cord is damaged while working. Damaged cords increase the risk of an electric shock.
- **Secure the workpiece.** A workpiece clamped with clamping devices or in a vice is held more securely than it is by hand.
- **Always wait until the power tool has come to a complete stop before placing it down.** The tool insert can jam and lead to loss of control over the power tool.
- **Check the socket carefully for wear, cracks or damage before installation on the hammer drill.**
- **Always be sure that you have a firm footing.** Be sure that no one is below you when using the tool in high locations.
- **Check the torque with a torque wrench.** The proper fastening torque may differ depending on the type of size of the bolt.
- **Use thick, cushioned gloves and limit the exposure time by taking frequent rest periods.** Vibration caused by hammer-drill or impact wrench action may be harmful to your hands and arms.
- **Do not use this tool as a drill.** Tools equipped with shut-off clutches are not designed for drilling applications. The output drive can shut off automatically and without warning.
- **Be careful when driving long screws.** There is a risk of the tool sliding off the fastener head, depending on type of socket or bit used. First test the fastening time of a fastener and pay attention during the screw-driving process to ensure you do not injure yourself if the tool bit or socket slides off of the fastener.
- **Bits, sockets, and tools get hot during operation. Wear gloves when touching them.**
- **Wear ear protection. Exposure to noise can cause hearing loss.**

PACKAGE CONTENTS:

Impact wrench and instruction manual.

KEY PARTS DIAGRAM



No.	Description
1	1/2" (13 mm) square drive

No.	Description
2	Forward/Reverse rocket switch

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.



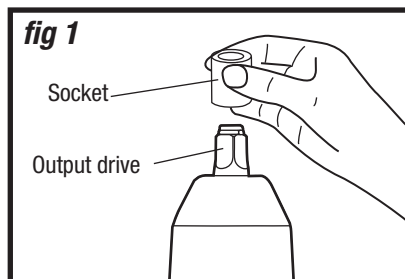
WARNING!

- Remove the impact wrench from the package and examine it carefully. Do not discard the carton or any packaging material until all parts have been examined.
- Do not allow familiarity with the impact wrench to cause a lack of alertness. A fraction of a second of carelessness is enough to cause severe injury.

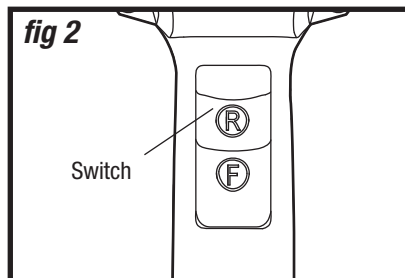
OPERATING INSTRUCTIONS**INSTALLING AND REMOVING THE SOCKET (fig 1)**

Always use the correct size socket for bolts and nuts. An incorrect socket will result in inaccurate and inconsistent fastening torque and/or damage to the bolt or nut.

1. To install the socket, push it onto the output drive of the tool until it locks into place.
2. To remove the socket, simply pull it off.

**TURNING THE IMPACT WRENCH ON (fig 2)**

1. Connect the power cord of your impact wrench to a standard household power outlet.
2. Press the part of the switch marked "F" to run the tool in the forward direction (clockwise rotation). Use this direction for tightening bolts or nuts.
3. Press the part of the switch marked "R" to reverse the motor direction (counter-clockwise rotation). Use this direction for loosening bolts or nuts.
4. Release the switch to stop the tool.
5. Keep the switch pressed for continuous operation.

**INSTALLING FASTENERS****TO FASTEN:**

1. Start threading the fastener by hand onto or into its threaded counterpart (e.g. nut onto bolt, or bolt into nut or threaded hole).
2. With the proper impact socket securely mounted to the wrench, slide the impact socket onto the nut or bolt head.
3. Firmly hold the tool and depress the switch at "F". The impact socket will turn the fastener and impacting will begin once the fastener encounters resistance.

NOTICE: Always keep the impact wrench at a right angle to the fastener to avoid damaging the fastener head.

**WARNING!**

- Always verify that the tool is switched off and unplugged before installing any accessories on the tool.
- Do not over-tighten, as the force of the impact wrench can break the fastener.

TO LOOSEN:

1. With the proper impact socket securely mounted to the wrench, slide the impact socket onto the bolt head.
2. Firmly hold the tool and depress the switch at "R". The tool will start to impact immediately.
3. Once the fastener has "broken loose," it will start to unthread. Be careful that you do not allow a fastener to spin freely once it is no longer engaged with its threaded counterpart, as it may be thrown out of the socket.

IMPACTING TIPS

The proper fastening torque may differ depending on the type or size of the bolt, the material of the workpiece to be fastened, etc.

Practice with various fasteners, noting the length of time required to reach the desired torque. Check the tightness with a hand-torque wrench. If the fasteners are too tight, reduce the impacting time. If they are not tight enough, increase the impacting time.

Hold the tool firmly, and place the socket over the bolt or nut. Turn the tool on, and fasten the bolt or nut to the proper torque.

The torque that is required to loosen a fastener averages 75 to 80% of the tightening torque, depending on the condition of the contacting surfaces. However, if rust or corrosion causes seizing, more torque may be required.

After fastening, always check the torque with a torque wrench. The fastening torque is affected by a wide variety of factors, including the following:

- **Voltage**
A voltage reduction will cause a reduction in the fastening torque.
- **Socket**
Failure to use the correct size socket will cause a reduction in the fastening torque.
A worn socket (wear on the hex end or square end) will cause a reduction in the fastening torque.
- **Bolt**
Although the torque coefficient and the class of bolt may be the same, the proper fastening torque will differ according to the diameter of the bolt.
Even if the diameters of bolts are the same, the proper fastening torque will differ according to the torque coefficient, the class of bolt and the bolt length.
- The use of a universal joint or an extension bar (both available separately) will reduce the fastening force of the impact wrench somewhat. Compensate by fastening for a longer period of time.
- The manner of holding the tool or the material to be fastened will affect the torque.

NOTICE:

- Hold the tool straight along the axis of the bolt or nut.
- Excessive fastening torque may damage the bolt/nut or socket. Before starting your job, always perform a test operation to determine the proper fastening time for your bolt or nut.

MAINTENANCE**BEFORE EACH USE**

1. Inspect the impact wrench, the On/Off switch, the cord 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. Unplug the tool from the power source 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 allow brake fluids, gasoline, petroleum-based products, penetrating oil, etc. to 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.
- If the supply cord is damaged, it must be replaced by a specially prepared cord available through the service organization.
- Use only accessories that are recommended for this impact wrench 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 impact wrench does not work.	The impact wrench is not plugged into a power source.	Plug the impact wrench into an appropriate power source.
Socket cannot be installed.	Improper socket selection.	Use a suitable socket.
The motor is overheating.	Cooling vents are obstructed.	Clean and clear vents. Do not cover with hand during operation.

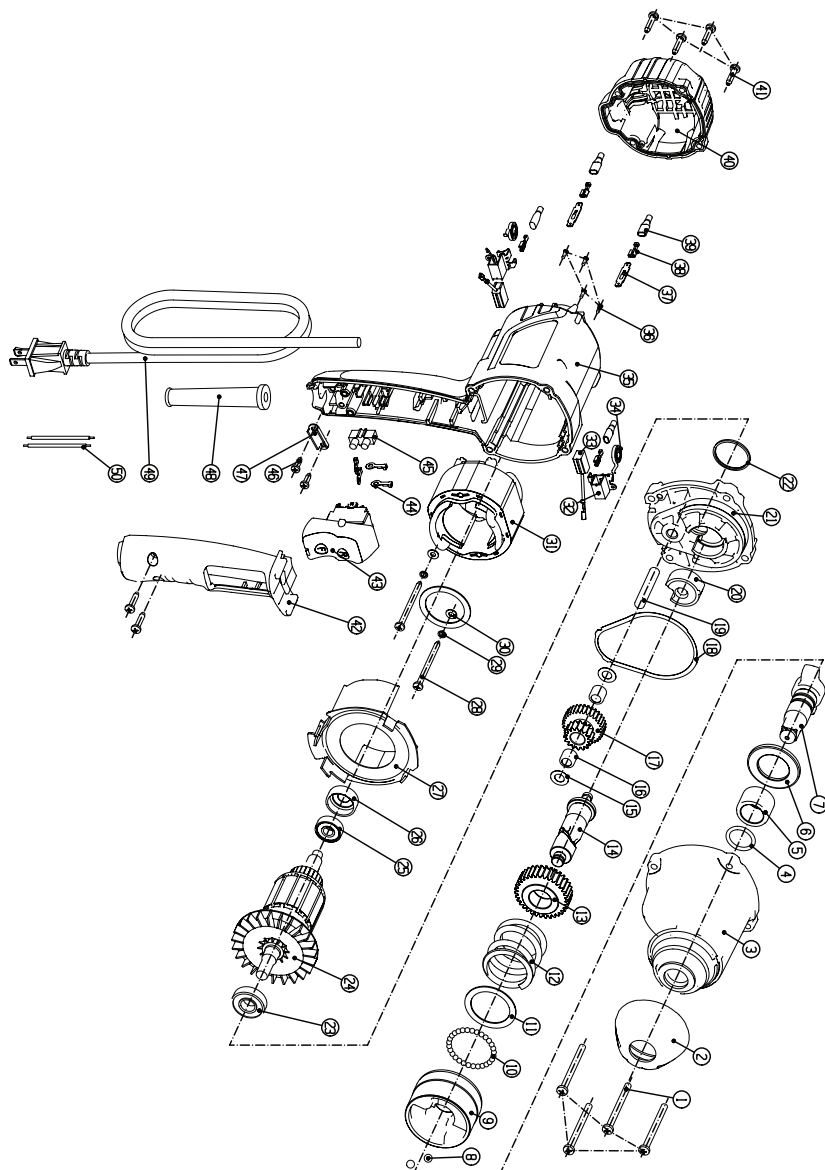
If the problem remains unsolved after performing the checks described above, call the toll-free helpline at 1-800-689-9928.



WARNING!

- Bits, sockets and tools get hot during operation. Wear gloves when touching them after use.
- Only use sockets designed for impact wrenches. Sockets not designed for impact wrenches could break and result in user injury. Inspect sockets prior to use to ensure that they have no cracks or other visible damage.

EXPLODED VIEW



No.	Part No.	Description
1	5610100000	Tapping Screw
2	3125144000	Cover
3	3421042000	Front Gear Housing
4	5690208000	O-ring
5	3551518000	Bushing
6	5650351000	Washer
7	2822873000	Spindle
8	5700217000	Steel Ball
9	3551371000	Impact Block
10	5700045000	Steel Ball
11	5650312000	Washer
12	3660413000	Spring
13	3551440000	Gear
14	3551372000	Spindle
15	5650187000	Washer
16	5700028000	Needle Bearing
17	3551470000	Gear
18	3704670000	Gasket
19	5670258000	Pin
20	5700211000	Oil Impreging Bearing
21	3421041000	Rear Gear Housing
22	5690213000	Rubber Ring
23	5700014000	Ball Bearing
24	2750905000	Rotor
25	5700008000	Ball Bearing

No.	Part No.	Description
26	3123738000	Bearing Holder
27	3125145000	Fan Baffle
28	5610048000	Tapping Screw
29	5650007000	Spring Washer
30	5650005000	Plain Washer
31	2740283000	Stator
32	2800164000	Brush Holder
33	4960260000	Carbon Brush
34	3660271000	Coiled Spring
35	3320975000	Motor Housing
36	5610006000	Tapping Screw
37	4930400000	Terminal
38	4930030000	Receptacle
39	4930094000	Sleeve
40	3320974000	Rear Cover
41	5610042000	Tapping Screw
42	3125146000	Handle
43	4870417000	Rocker Switch
44	4930047000	Ring Terminal
45	4930432000	Connector
46	5610093000	Tapping Screw
47	3700314000	Cord Anchorage
48	3121028000	Cord Guard
49	4810002000	Power Cord & Plug
50	4860004000	Inner Wire

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 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 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