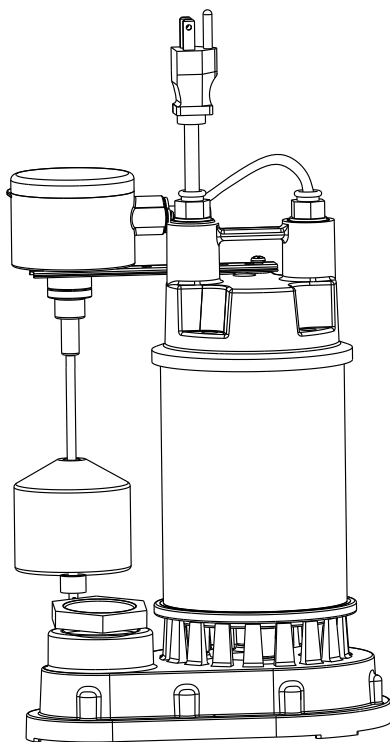


MASTERCRAFT™/MC

Submersible **SUMP PUMP**



Model No. 062-3538-6

IMPORTANT:

Please read this manual carefully before running this submersible sump pump and save it for reference.

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.



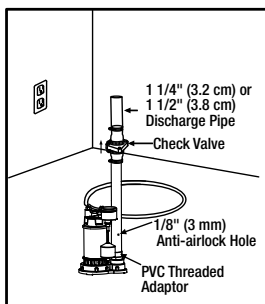
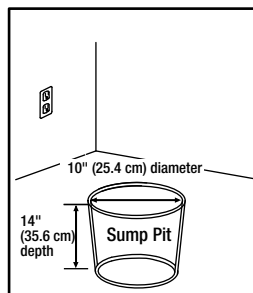
SAVE THESE INSTRUCTIONS

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

1 SUMP REQUIREMENTS

Pit must be covered. It is usually 10" (25.4 cm) in diameter and 14" (35.6 cm) deep.

Install on a hard surface: brick, cement, or concrete block; not sand, clay, or gravel.

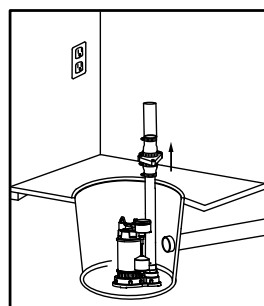
**2 DISCHARGE PLUMBING**

To install the discharge plumbing and check valve on the pump:

- A. Use non-stick tape — NOT pipe joint compound.
- B. Tighten the pipe into the pump.
- C. Install the check valve as close to the pump as possible.
- D. Drill an 1/8" (3 mm) anti-airlock hole as shown. The hole must be in the sump.

3 INSERTING THE PUMP

Place the pump in the sump, making sure that nothing interferes with switch operation.



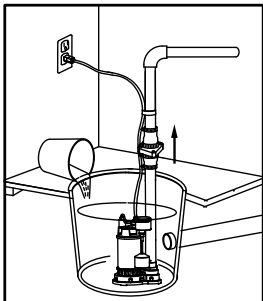
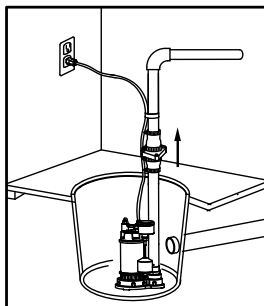
4 COMPLETING THE PLUMBING

Finish installing the necessary plumbing. Follow the glue manufacturer's instructions for curing time.

PLUGGING IN THE PUMP

Plug the pump into a 15 A circuit.

The circuit should be GFCI protected and dedicated to the sump pump.



5 VERIFYING OPERATION

Check the pump's operation by filling the sump with water until the pump starts. Let it run until it has pumped down the sump and stopped. Replace the sump cover.



WARNING!

Plastic pipe glue is extremely flammable. Follow the glue manufacturer's instructions carefully if you are using glued plastic pipe for the discharge pipe.

Install in compliance with all applicable laws, codes, and ordinances. Non-compliance may cause product failure, property damage, and/or personal injury.

Do not use an extension cord with a sump pump.

Regularly inspect pump inlet and clean away any debris.

TECHNICAL SPECIFICATIONS

Liquid temperature range	32 to 95°F (0 to 35°C)
Impeller	Plastic
Solids handling	1/4" (6.3 mm) spherical
Discharge size	1 1/2" (3.8 cm) female national pipe thread (FNPT) or 1 1/4" (3.2 cm) FNPT (with adaptor)
Seal	Lip seal
Cord length	10' (3 m)
Upper bearing	Ball bearing
Lower bearing	Ball bearing
Single phase	Permanent split capacitor (PSC)
Motor protection	Auto-reset thermal overload protection in motor
Construction material	Stainless steel motor housing, cast iron volute, plastic impeller
Motor	NEMA L, torque curve, oil-filled, squirrel cage induction, class B insulation
Maximum flow	4200 U.S. GPH (15,899 L/hr)
Maximum head height	29' (8.8 m)

MOTOR AND ELECTRICAL

SKU number	062-3538-6
HP	1/2
Power	115 V AC
Hz	60
RPM	3450
Full load amps	6.9
Cord size	18 AWG
Cord type	SJTW

NOTE:

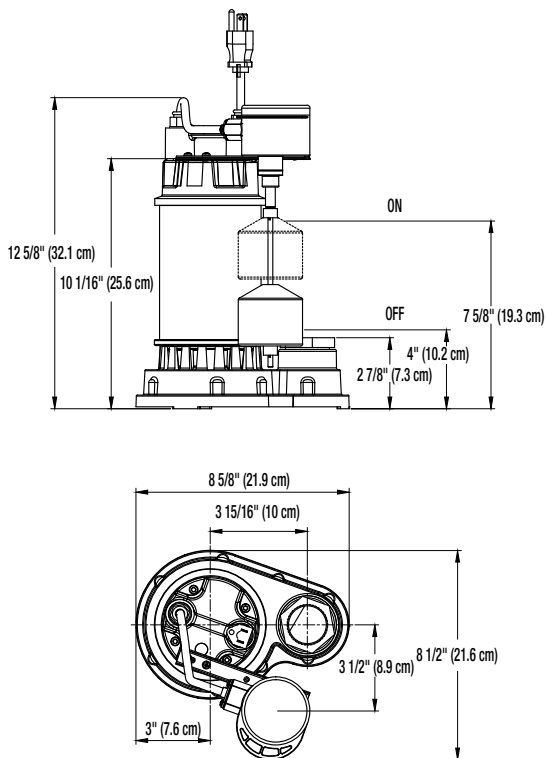
Do not reduce size of discharge pipe or hose below 1 1/4" (3.2 cm) diameter.
 If discharge is too small, pump will overheat and fail prematurely.
 This pump is designed for use in a residential sump only. Only pump water with this pump.

PERFORMANCE CHART

Lift in feet/	0'	5'	10'	15'	20'	25'
metres	(0 m)	(1.5 m)	(3 m)	(4.6 m)	(6 m)	(7.6 m)
U.S. gallons/	4200	4000	3600	3200	2400	1200
litres per hour	(15,899)	(15,142)	(13,627)	(12,113)	(9,084)	(4,542)

*Friction loss in piping not included in measurement.

DIMENSIONS



SAFETY GUIDELINES

This manual contains information that relates to protecting personal safety and preventing equipment problems. It is very important to read this manual carefully and understand it thoroughly before using this product.

- These precautions are intended for the personal safety of the operator and others working with the operator. Failure to follow these instructions may result in a permanent loss of vision, serious personal or even fatal injury, property damage and/or tool damage. Please take the time to read and understand them.
- Wear safety glasses with side shields when operating the pump and verify that others in the work area are also wearing safety glasses. Safety glasses must conform to both American National Standards Institute (ANSI Z87.1) and Canadian Standards Association (CSA Z94.3) standards requirements and must provide protection from flying particles from the front and the sides. Failure to comply may result in moderate injury.
- The motor of this pump has a thermal protector that will trip if the motor becomes too hot. The protector will reset itself once the motor cools down and an acceptable temperature has been reached. The pump may restart unexpectedly if it is plugged in.
- This pump is made of high-strength, corrosion-resistant materials. It will provide trouble-free service for a long time when properly installed, maintained, and used. However, inadequate electrical power to the pump, dirt, or debris may cause the pump to fail. Please carefully read the manual and follow the instructions regarding common pump problems and remedies.
- Mastercraft Canada is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, or the misuse or abuse of pumps or equipment.



DANGER!

- Keep children away from the work area. Do not allow children to handle the pump.
- Follow all electrical and safety codes, particularly the Canadian Electrical Code, and local codes and ordinances.
- Disconnect the power supply to the pump, drain all water and release all pressure from the water system before servicing any pump component.
- Risk of fire or explosion: Do not pump flammable or explosive liquids such as oil, gasoline, kerosene, ethanol, etc. Do not use in the presence of flammable or explosive vapours. Using this pump with or near flammable liquids can cause an explosion or fire, resulting in property damage, serious personal injury and/or death.
- Risk of electric shock: Never remove the ground terminal on the three-pronged power plug of the pump as the ground terminal is designed for protection. Do not adjust any electrical appliance or product without disconnecting the power supply. Do not stand on wet or damp surface or in water when the pump is connected. Avoid handling the pump with wet hands.
- Risk of burns: Do not touch the motor housing during operation. The motor is designed to operate at high temperatures. Do not disassemble the motor housing.
- Ensure the electrical power source is adequate for the requirements of the pump.
- Extension cords may not deliver sufficient voltage to the pump motor. Extension cords present a life-threatening safety hazard if the insulation becomes damaged or the connection ends fall into water. The use of an extension cord to power this pump is not permitted.
- This unit is designed only for use on 115 V (single phase), 60 Hz, and is equipped with an approved 3-conductor cord and 3-prong grounded plug. Do not remove the ground pin under any circumstances. The 3-prong plug must be directly inserted into a properly installed and grounded 3-prong, grounding-type receptacle. Do not use this pump with a 2-prong wall outlet. Replace the 2-prong outlet with a properly grounded 3-prong receptacle (a GFCI outlet) installed in accordance with the Canadian regulation is the National Electrical Code (NEC) and the Canadian Electrical Code (CEC). All wiring should be performed by a qualified electrician.
- Ensure that the electrical circuit to the pump is protected by a 15 A fuse or circuit breaker.

CAUTION!

- Know the pump and its applications, limitations, and potential hazards.
- Secure the discharge line before starting the pump. An unsecured discharge line will whip, possibly causing personal injury and/or property damage.
- Secure the pump to a solid base. This will aid in keeping the pump in a vertical orientation. This is critical in keeping the pump operating at maximum efficiency. It will also help prevent the pump from clogging resulting in premature failure.
- Periodically inspect the pump and system components. Disconnect the pump from the power supply before inspecting.
- Never run the pump dry, as doing so may damage the mechanical seal and void the warranty.
- Do not lift the pump by the power cord.

UNPACKING

- Upon receiving the pump, it should be inspected for damage or shortages. If damage has occurred, file a claim immediately with the carrier that delivered the pump. If the manual is removed from the packaging, do not lose or misplace.

STORAGE

- **Short Term**—Pumps are manufactured for efficient performance following short, inoperative periods in storage. For best results, pumps can be retained in storage, as factory assembled, in a dry atmosphere with constant temperatures for up to six (6) months.
- **Long Term**—For storage of six (6) months, to twenty-four (24) months, the units should be stored in a temperature-controlled area: a roofed-over, walled enclosure that provides protection from the elements (rain, snow, wind, dust, etc.), and where the temperature can be maintained between 4 and 40°C (40 and 104°F). If extended high humidity is expected to be a problem, all exposed parts should be inspected before storage and all surfaces that have the paint scratched, damaged, or worn should be recoated with a water-based, air-dry enamel paint. All surfaces should then be sprayed with a rust-inhibiting oil.
- Pump should be stored in its original shipping container. On initial start up, rotate impeller by hand to ensure seal and impeller rotate freely.

INSTALLATION

DISCHARGE

- Discharge piping should be as short as possible. A check valve is recommended for each pump being used. The check valve is used to prevent backflow into the sump. Excessive backflow can cause flooding and/or damage to the pump.

ELECTRICAL CONNECTIONS

- Pump comes with float switch.
- **Power Cable**—The cord assembly mounted to the pump must not be modified in any way. Any splice between the pump and the control panel must be made in accordance with all applicable electric codes. It is recommended that a junction box, if used, be mounted outside the sump or be of at least NEMA 4 construction if located within the wet wall. Do not use the power cable to lift pump.



WARNING!

- Protect the electrical cord from sharp objects, hot surfaces, oil, and chemicals. Avoid kinking the cord. Do not use damaged or worn cords.
- Failure to comply with the instructions and designed operation of this unit may void the warranty. Attempting to use a damaged pump can result in property damage, serious personal injury and/or death.

SAFETY GUIDELINES**WIRE SIZE**

- Consult a qualified electrician for proper wire size.

PRE-OPERATION: CHECK VOLTAGE AND PHASE

- Before operating pump, check to make sure that the voltage and phase information stamped on the pump's identification plate matches the available power.

IDENTIFICATION PLATE

- Note the numbers on the pump's identification plate and record at the end of the manual for future reference.

INSULATION TEST

- Before the pump is put into service, an insulation (megger) test should be performed on it. The ohm values as well as the volts and amps should be recorded.

PUMP-DOWN TEST

- After the pump has been properly wired and lowered into the basin, sump, or lift station, it is advisable to check the system by filling with liquid and allowing the pump to operate through its pumping cycle. The time needed to empty the system, or pump down time, should be recorded.

MAINTENANCE

- As the motor is oil-filled no lubrication or other maintenance is required.

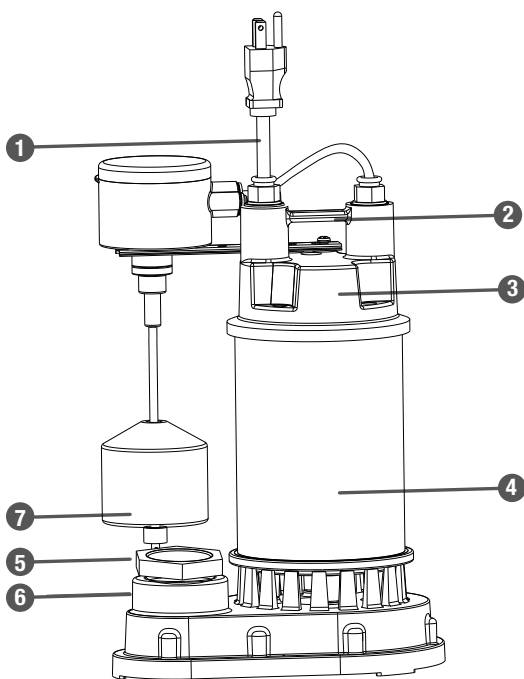
**CAUTION!**

- Risk of electric shock. Do not remove cord and/or strain relief. Do not connect conduit to pump.

PARTS LIST

No.	Description	Qty.
1	Power cord	1
2	Carry handle	1
3	Motor cap	1
4	Motor housing	1

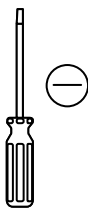
No.	Description	Qty.
5	1 1/4" (3.2 cm) adaptor	1
6	Pump outlet	1
7	Float switch	1



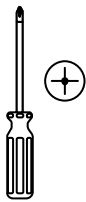
APPLICATION

- This submersible sump pump is designed for home sump applications. Use this pump only for pumping water.
- This unit is not designed as a waterfall or fountain pump, or for applications involving salt water or brine. Use with waterfalls, fountains, salt water or brine will void warranty.
- Do not use where water recirculates.
- Not designed for use as a swimming pool drainer.

TOOLS REQUIRED



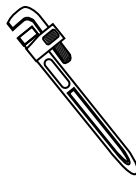
Flat-head screwdriver



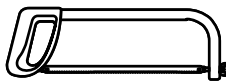
Cross-head screwdriver



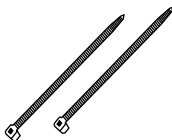
Channel lock pliers



Pipe wrench



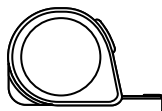
Hacksaw



Cable ties



Safety goggles



Tape measure

MATERIALS REQUIRED (NOT INCLUDED)



Threaded adaptor
(pipe to pump)



1 1/4" (3.2 cm) or
1 1/2" (3.8 cm)
ABS or PVC pipe



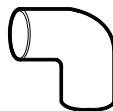
Thread tape



1 1/4" (3.2 cm) or
1 1/2" (3.8 cm)
check valve



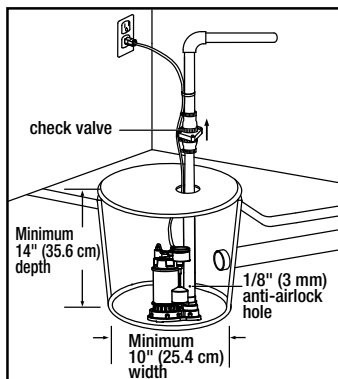
ABS or PVC cement
(to match the pipe)



1 1/4" (3.2 cm)
or 1 1/2" (3.8 cm)
90° elbow

INSTALLATION

- Install the pump in sump pit with minimum diameter of 10" (25.4 cm). The sump depth should be 14" (35.6 cm). Construct the sump pit of tile, concrete, steel or plastic. Check local codes for approved materials and for proper installation.
- Install the pump in a pit so that the switch operating mechanism has maximum possible clearance.
- The pump should not be installed on clay, earth or sand surfaces. Clean the sump pit of small stones and gravel which could clog the pump. Keep the pump inlet screen clear.
- Install discharge plumbing. Use rigid plastic pipe and wrap threads with PTFE pipe thread sealant tape. Screw pipe into the pump hand tight plus 1 1/2 turns.
- To reduce motor noise and vibrations, a short length of rubber hose [1 7/8" (47.6 mm) I.D., e.g., radiator hose] can be connected into the discharge line near the pump using suitable clamps.
- Install an in-line check valve or an in-pump check valve to prevent flow backwards through the pump when the pump shuts off.
- Power Supply: Pump is designed for 115 V, 60 Hz, operation and requires a minimum 15 A individual branch circuit. Plug the power plug into a 115 V GFCI power outlet.
- If the pump discharge line is exposed to outside subfreezing atmosphere, a portion of the line exposed must be installed so any water remaining in the pipe will drain to the outfall by gravity. Failure to do this can cause water trapped in the discharge to freeze which could result in damage to the pump.
- After the piping and check valve have been installed, the unit is ready for operation.
- Check the pump operation by filling the sump with water and observing pump operation through one complete cycle.



NOTE:

Do not use ordinary pipe joint compound on plastic pipe. Pipe joint compound can damage plastics. If your check valve is not equipped with an air bleed hole to prevent an airlock in the pump, drill a 1/8" (3 mm) hole in the discharge pipe just above where the discharge pipe screws into the pump discharge. Be sure the hole is below the waterline and the check valve to prevent airlocks.



DANGER!

- Risk of electric shock, fire or serious injury and/or death. Pump should always be electrically grounded to a suitable electrical ground such as a grounded water pipe or a properly-grounded metallic raceway, or ground wire system. Do not cut off the round ground pin.

CAUTION!

- Risk of flooding. Can cause personal injury and/or property damage. If a flexible discharge hose is used, make sure the pump is secured in the sump to prevent movement. Failure to secure the pump may allow pump movement, switch interference and prevent the pump from starting or stopping.
- Risk of flooding. Can cause personal injury and/or property damage. Failure to make an operational check may lead to improper operation, premature failure, and flooding.

OPERATION

- The shaft seal depends on water for lubrication. Do not operate the pump unless it is submerged in water as the seal may be damaged if allowed to run dry.
- The motor is equipped with an automatic reset thermal protector. If temperature in the motor should rise unduly, the switch will cut off all power before damage can be done to the motor. When the motor has cooled sufficiently, the switch will reset automatically and restart the motor. If the protector trips repeatedly, the pump should be removed and checked. Low voltage, long extension cords, clogged impeller, very low head or lift, a plugged or frozen discharge pipe, etc., could cause the protector to trip.
- The pump will not remove all water.



DANGER!

- Risk of electric shock, fire or serious injury and/or death. Do not handle a pump or pump motor with wet hands or when standing on a wet or damp surface or in water.
- Risk of electric shock, fire or serious injury and/or death. Before attempting to check why the unit has stopped operating, disconnect power from the unit.

CARE AND CLEANING

DO

When the power is disconnected, inspect the pump suction screen and remove all debris, then plug the pump back into the grounded (GFCI) outlet.

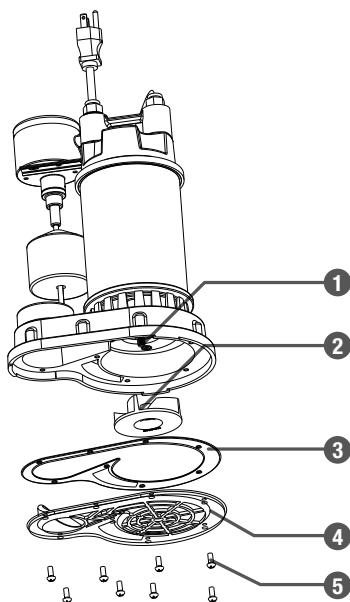
DO NOT

Do not disassemble the motor housing. This motor has NO repairable internal parts.

Do not lift up the pump by the power cord.

TO CLEAN A PUMP CLOGGED WITH DEBRIS:

- Unplug the pump from electrical power.
- Unscrew the stainless screws (5), the seal plate (4) and gasket (3).
- Use a flat-head screwdriver to hold the shaft (1), then turn the impeller (2) counter-clockwise to release the impeller (2).
- Remove debris from around the shaft (1) and on/under the impeller (2).
- Reassemble the pump.



CAUTION!

- Always use the handle to lift the pump. Never use the power cord to lift the pump. To avoid skin burns, unplug the pump and allow time for it to cool after periods of extended use.

TROUBLESHOOTING

Problem	Possible Causes	Corrective Action
The pump does not start or run.	The fuse is blown. The breaker is tripped. The plug is disconnected. The plug is corroded. There is thermal overload.	Replace the fuse. Reset the breaker. Secure the plug. Clean the plug prongs. Unplug for 30 minutes and then plug in again.
	The switch failed. The motor failed.	Replace the switch. Replace the pump.
The pump operates but pumps little or no water.	The screen is blocked. Debris is caught in the impeller or discharge. The impeller is loose on the shaft or the impeller is broken.	Clean the screen. Remove the debris. Reassemble the impeller or replace the impeller.
The pump starts and stops too often.	There is a backflow of water from the piping or the check valve is leaking. The float switch is stuck.	Install a check valve or replace the check valve. Clean the float switch to make sure the float moves up and down freely.
The pump will not shut off.	The switch is tangled.	Reposition the pump and make sure the switch moves freely.
	The float switch is faulty. The float is obstructed.	Replace the switch. Remove the obstruction.

This Mastercraft product is guaranteed for a period of **two (2) year** from the date of original retail purchase, against defects in materials and workmanship.

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, 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