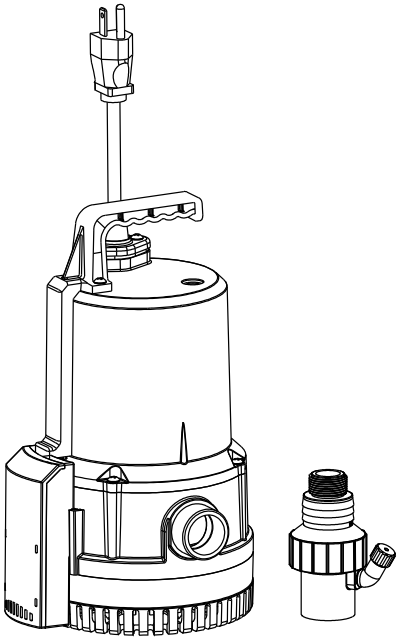
MASTERCRAFT™/MC

AUTOMATIC

UTILITY PUMP



Model No. 062-3405-2

IMPORTANT:
Please read this manual carefully before running this utility pump and save it for reference.

INSTRUCTION MANUAL

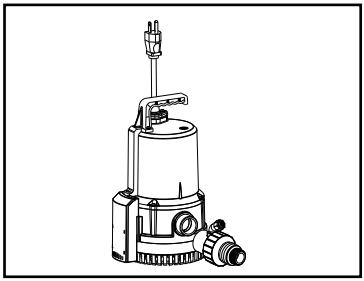
TABLE OF CONTENTS

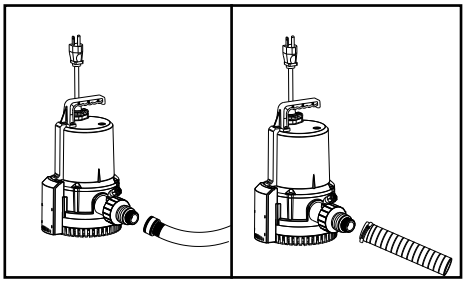
NOTE:
If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.

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

1 CONNECTING ADAPTOR

Attach a 1" (25.4 mm) female adaptor to the pump discharge.



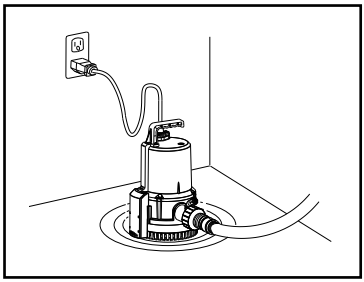


2 CONNECTING A 3/4" (19 mm) GARDEN HOSE OR 1 1/4" (31 mm) HOSE KIT

Attach a garden hose with a 3/4" (19 mm) garden hose thread (not included) to the adaptor.
Or if you prefer, you can use a 1 1/4" (31 mm) hose kit (not included) in order to pump water away more quickly.
Securely attach the hose kit (not included) to the adaptor.

3 OPERATING THE PUMP

If the water level is over starting level 1 1/4" (31 mm), the pump will automatically start and pump out water until the water level is down to 1/4" (6.3 mm). When water reaches starting level 1 1/4" (31 mm) again, the pump will start again.



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 utility pump.

Regularly inspect pump inlet and clean away any debris.

TECHNICAL SPECIFICATIONS

Liquid temperature range	32 to 95°F (0 to 35°C)
Impeller	Rubber
Discharge size	1” (25.4 mm) Male NPT or 3/4” (19 mm) garden hose thread
Seal	Lip seal
Cord length	10’ (3 m)
Single phase	Permanent split capacitor (PSC)
Motor protection	Auto-reset thermal overload protection in motor
Maximum flow	1800 U.S. GPH (6,818 L/hr)
Maximum head height	28’ (8.5 m)

MOTOR AND ELECTRICAL

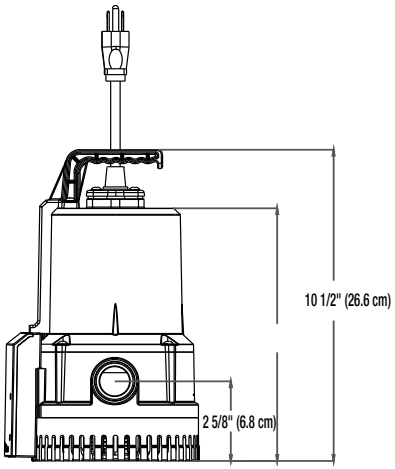
SKU number	062-3405-2
HP	1/4
Power	115 V AC
Hz	60
RPM	3450
Full load amps	2.0
Cord size	18 AWG
Cord type	SJTW

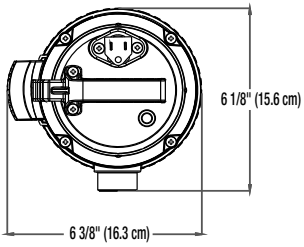
PERFORMANCE CHART

Lift in feet/ metres	0' (0 m)	5' (1.5 m)	10' (3 m)	15' (4.6 m)	20' (6 m)	25' (7.6 m)
U.S. gallons/ litres per hour	1800 (6,818)	1550 (5,871)	1320 (5,000)	1080 (4,090)	780 (2,955)	360 (1,363)

*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.

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.

DANGER!

- 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.
- ALWAYS disconnect the power to the pump before servicing.
- Do not touch the motor housing during operation. The motor is designed to operate at high temperatures. Do not disassemble the motor housing.
- Do not handle the pump or pump motor with wet hands or when standing on a wet or damp surface or in water before disconnecting the power.

CAUTION!

- Do not lift the pump by the power cord.
- Know the pump and its applications, limitations, and potential hazards.
- 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 to ensure the pump suction screen is free of mud, sand, and debris. Disconnect the pump from the power supply before inspecting.
- Follow all local electrical and safety codes, along with the National Electrical Code (NEC) and the Canadian Electrical code (CEC). In addition, all Occupational Safety and Health Administration (OSHA) and Occupational Health and Safety (OH&S) guidelines must be followed.
- Ensure the electrical power source is adequate for the requirements of the pump.
- Before using the pump, check the hose for holes or excess wear, which could cause leaks, and ensure the hose is not kinked or making sharp angles. A straight hose allows the pump to move the greatest amount of water quickly. Also check that all hose connections are tight to minimize leaks.

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

- 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. Do not use the power cable to lift pump.

WARNING!

- Release all pressure and drain all water from the system before servicing any component.
- Secure the discharge line before starting the pump. An unsecured discharge line will whip, possibly causing personal injury, and/or property damage.
- 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. We recommend the pump be plugged directly into an outlet.
- 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 CE code and local codes and ordinances. All wiring should be performed by a qualified electrician.
- 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 instruction 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.
- Ensure that the electrical circuit to the pump is protected by a 10 A fuse or circuit breaker.

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.

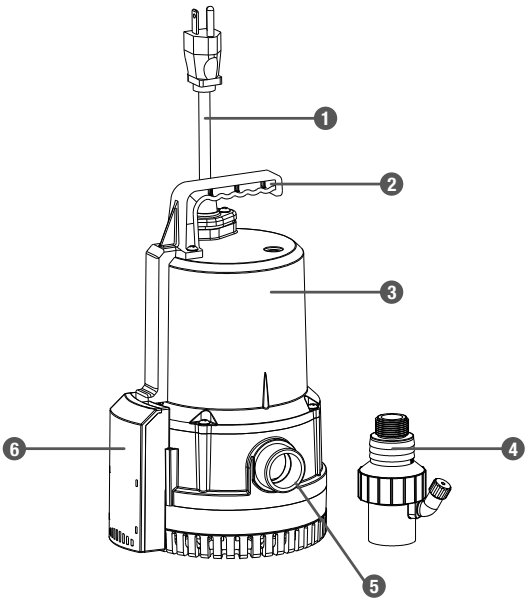
CAUTION!

- 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 housing	1

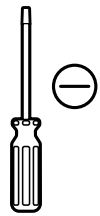
No.	Description	Qty.
4	3/4” (19 mm) garden hose adaptor	1
5	Pump outlet	1
6	Water sensing probes	1



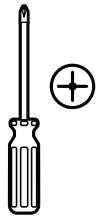
APPLICATION

- This submersible utility pump is designed for water removal applications. Pump water only with this pump. It can automatically drain or remove water from the following: pits, sinks, window wells, basements, swimming pool covers, boats, low spot in yards, or other flooded areas.
- This pump has not been tested or approved for use in swimming pools or in salt-water marine areas. This pump is not designed to function as a permanently installed sump pump. It is also not engineered to be run continuously as a “fountain” or “waterfall” pump.
- Do not use where water recirculates.
- Not designed for use as a swimming pool drainer.

TOOLS REQUIRED

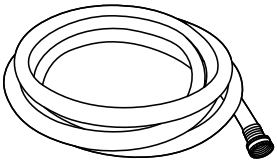


Flat-head screwdriver

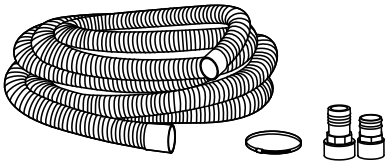


Cross-head screwdriver

MATERIALS REQUIRED (NOT INCLUDED)



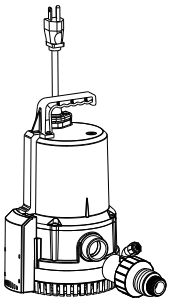
Garden Hose



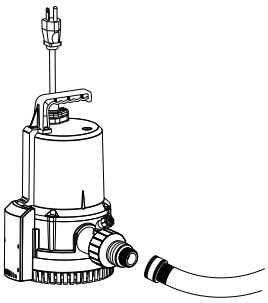
1 1/4” (31 mm) discharge hose kit

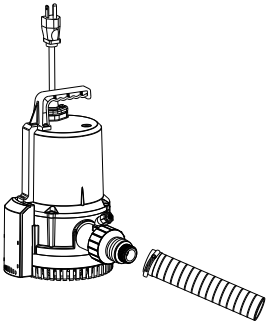
INSTALLATION

- Attach a 1" (25 mm) female adaptor to the pump discharge.



- Attach a garden hose with a 3/4" (19 mm) garden hose thread (not included) to the adaptor. Or if you prefer, you can use a 1 1/4" (31 mm) hose kit (not included) in order to pump water away more quickly.
- Securely attach the hose kit (not included) to the adaptor.





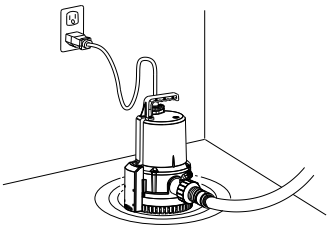
NOTE:
- Minimize pressure loss (or maximize flow rate) by using a larger inner diameter hose or by shortening the hose.
- Be sure the 3/4" (19 mm) garden hose thread connector has a rubber gasket to minimize water leaks.

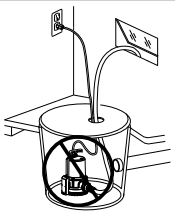
CAUTION!
- Always use the handle to lift the pump. Never use the power cord to lift the pump. To avoid skin burns, unplug the pump and allow time for it to cool after periods of extended use.

WARNING
- Secure the discharge hose before plugging in the pump. An unsecured discharge hose may "whip" possibly causing personal injury, and/or property damage.

OPERATION

- Place the pump on a solid base in a flooded area or any place that you would like to remove water. Plug the pump into a 115 V GFCI power outlet.
- If the water level is over starting level 1 1/4" (31 mm), the pump will automatically start and pump out water until the water level is down to 1/4" (6.3 mm). When water reaches starting level 1 1/4" (31 mm) again, the pump will start again.

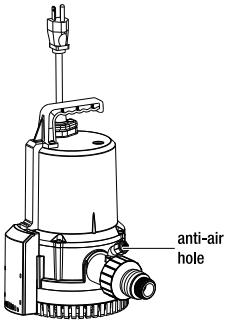




Not for permanent installation as a sump pump.

AIRLOCK

This pump is a centrifugal utility pump, designed to efficiently remove water. However, it cannot move air. If air is trapped inside the pump (a condition called "airlock"), the pump cannot pump water out even though the pump is completely submerged. This adaptor (included) has an anti-airlock hole. Air flows out through the anti-airlock hole, eliminating the airlock so that the pump can operate properly. If debris blocks the anti-airlock hole, unplug the pump, clean out the anti-airlock hole, and restart the pump. Alternately, drain the water out of the garden hose, keep the end of the hose out of the water, and plug in the power cord, restarting the pump.



NOTE:

- Make certain you unwind the garden hose completely. Kinks in the hose will restrict the pump, preventing it from priming, which is the first step to pumping water. This pump has water detector sensors. As long as the water level is over 1 1/4" (31 mm), the pump will automatically start operating.
- Place upright on a solid base.
- The pump will not start working unless the water level is over 1 1/4" (31 mm).
- Not for permanent installation as a sump pump.

CAUTION!

- This hole is for anti-airlock purposes only. Leakage of air or water is normal and necessary. DO NOT REMOVE OR PLUG THIS HOLE!

WARNING!

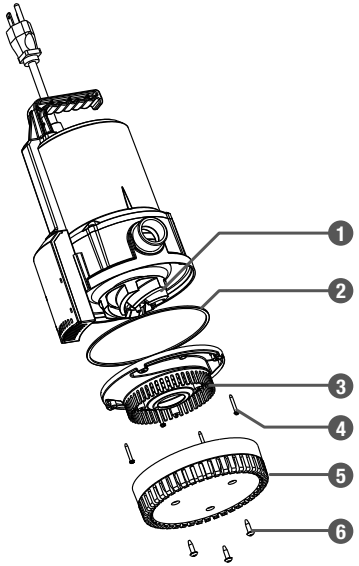
- Do not allow the plug to fall in water and do not stand in water while the pump is plugged in.
- Do not handle the pump or pump motor with wet hands or when standing on a wet or damp surface or in water while the pump is plugged in.

CARE AND CLEANING

DO	DO NOT
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 disassemble the motor housing. This motor has NO repairable internal parts, and disassembly may cause leakage or dangerous electrical wiring issues. Do not lift up the pump by the power cord.

TO CLEAN A PUMP CLOGGED WITH DEBRIS:

- Unplug the pump from electrical power.
- Remove the screws (6) and take out the bottom plate (5) from the pump.
- Remove debris from the screen.
- Remove the screws (4) and take out the volute (3) from the pump and clean the debris on the impeller (1).
- Reassemble the volute (3).



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
Motor runs but no water is discharged.	Pump is air-locked.	Be sure it is clear of debris. Clean it if needed.
	Be sure pump is actually running, not just humming.	See section below called “Motor hums-pump not running”.
	Discharge hose or pipe is blocked or too restrictive.	Check hose/pipe for blockages. Check manual for maximum lengths of pipe/hose that pump can handle. Do not use a hose/pipe that is narrower than the discharge of the pump itself.
	Discharge hose/pipe goes up too high.	Every pump has a maximum “head” capability, which is the highest it can lift water. Do not route discharge hose/pipe higher than the rating on Pg. 5.
	Impeller or other internal parts are worn, damaged, or clogged.	Inspect the impeller and volute for wear or breakage. Repair or rebuild as needed. Check for clogs in the impeller screen and in the outlet riser (part that extends from volute to outlet).
	Check valve (if installed) is installed backwards.	Check body of check valve for an arrow indicating flow direction, or markings of “in” and “out” or similar. Install in proper direction to allow water flow.
Motor just hums – pump not running.	Impeller is stuck or jammed with debris.	Inspect the impeller area for any debris that may have entered. Remove as needed. Make sure impeller rotates freely.
	Motor is locked up.	Check cooling shroud and/or vents in motor case for foreign objects or for shifting in the case. Remove objects and/or straighten the motor shroud.
	Motor has failed.	If all items above check out OK, the motor has failed. Replace pump.
Motor does not run or make any noise at all.	Pump is not getting any power.	Check outlet where pump is plugged in. Make sure it has power. If no power, check your home’s fuse or circuit breaker panel and repair as needed.
		Pump is not plugged in properly. Ensure pump’s plug is making good contact in outlet.
	Water sensing probes not submerged in at least 1 1/4” (31 mm) of water.	Ensure pump is sitting flat in the water. Pump will not begin operating until the water sensing probes are submerged in at least 1 1/4” (31 mm) of water.
	Water sensing probes are damaged or covered with debris.	Remove sensor protector screen. Flush the sensor housing with fresh water and ensure the probes are clean.
	Pump has overheated from continuous use.	Most utility pumps are not designed to run for extended periods of time. The pump has turned off to protect itself and user. Allow pump to cool before next use.
	Internal connection or motor has failed.	If all items above check out OK, the motor has failed. Replace pump.
	The liquid temperatures below 32°F (0°C) or above 95°F (35°C).	Do not operate pump in temperatures as indicated.

TROUBLESHOOTING

Problem	Possible Causes	Corrective Action
Pump runs and moves water but the quantity of water is less than it should be.	Discharge hose is restrictive.	If you are using a hose that is narrower than the pump discharge, or a long hose, the pump will not be able to discharge water at the rate for which it was designed. Use a shorter, fatter hose. Check hose for coils or kinks. Lay hose out straight for best performance.
	Debris partially blocking intake area.	Remove debris and ensure intake area is clear for optimum performance.
	Discharge elevation too high.	The higher the discharge hose goes, the less water the pump can move. For improved performance the hose should not go up too high.
	Impeller or other internal parts are worn or damaged.	Inspect the impeller, diffuser, and other internal parts for wear and damage. Repair as needed.
There is some kind of oil around the pump and in the water.	Standard submersible utility pump being used in a pond, waterfall, etc. It has overheated and expelled its dielectric oil.	Standard submersible utility pumps are not designed to run for long periods of time. For waterfall or pond use, or for any use where the pump must run for a long period, use a pump that is specifically labelled as a waterfall or pond pump.
	Standard submersible utility pump used in a fish pond.	Fish waste in the water can attack the shaft seal. The seal has become damaged and the internal oil has come out. Use only waterfall type pumps in a fish pond.
	Submersible utility pump simply ran too long in shallow water and expelled its dielectric oil.	A standard submersible utility pump is only cooled by the water surrounding it. If allowed to run too long in shallow water, the pump can overheat and expel its oil. Need to run the pump for shorter periods of time with “breaks” to allow for complete cool-down.
The impeller wears out quickly.	Sand, dirt or other grit in the water is accelerating wear.	All utility pumps are designed to pump clear water. If there is dirt or grit in the water, the internal parts of the pump will wear at an accelerated rate.
	Some liquid other than water is being pumped.	Many liquids have very little lubricating qualities. They will not lubricate the impeller properly and it will wear out faster. The utility pumps are all designed to pump clear fresh water.
Impeller is broken.	Pump has picked up debris that caused the damage.	The utility pumps use a thermoplastic impeller. Care must be used to try to keep debris from being drawn into the pump which will damage it.
Electronic utility pump not working as described.	Pump won’t keep running when there is plenty of water.	Discharge hose is too restrictive (too narrow, too long, or too high). Electrical supply inadequate. Pump should be plugged directly into an outlet without going through extension cord, timer, or ground fault interrupter circuit.
	Pump keeps running long after the water is gone.	Internal sensing circuitry has failed. Pump will function fine as a standard utility pump but its sensing circuitry will not work. Clean water sensing probes.

This Mastercraft product is guaranteed for a period of **one (1) 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 not 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

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