

## TROUBLESHOOTING GUIDE:

| ISSUE                                   | CAUSES                                | CORRECTION  |
|---|---------------------------------------|---|
| Motor will not start or stops in use    | No power                              | Check circuit breaker or GFCI                               |
|   | Low line voltage                      | Increase AWG of extension cord                              |
|   | Thermal overload protection activated | Unplug and allow to cool                                    |
|   | Obstructed impeller                   | Unplug, open cover plate, remove debris                     |
|   | Worn-out or dirty motor brushes       | Unplug, clean or install new brushes from renewal kit       |
| Pump will not prime or maintain prime   | Air leak in suction hose              | Check hose gasket and tighten fitting                       |
|   | Kinked or reversed suction hose       | Straighten suction hose; attach to suction port             |
|   | Suction lift too high                 | Lower pump height   |
|   | Impeller drag                         | Add 1 tbs. vegetable oil to suction port                    |
| Motor runs but pumps little or no water | Kinked or reversed hoses              | Straighten suction/discharge hoses; attach to correct ports |
|   | Air leak in suction hose              | Check hose gasket and tighten fitting                       |
|   | Low line voltage                      | Increase AWG of extension cord                              |
|   | Impeller drag or wear                 | Add 1 tbs. vegetable oil to suction port                    |
|   | Worn-out impeller                     | Unplug, install new impeller from renewal kit               |
|   | Lift exceeds pump capacity            | Lower pump and/or discharge hose height                     |
| Pump leaks                              | Loose hose fittings                   | Tighten hose fittings                                       |
|   | Missing hose gasket                   | Install hose gasket   |
|   | Loose housing plate                   | Tighten housing plate screws                                |
|   | Bad housing plate gasket              | Unplug, replace gasket from renewal kit                     |

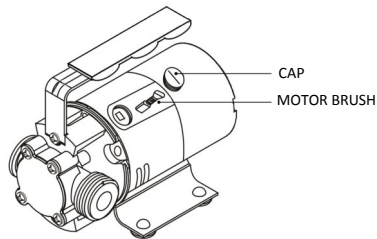
## MAINTENANCE:

**⚠ DANGER** RISK OF ELECTRICAL SHOCK. Always unplug pump to disconnect power before proceeding with installation, service or maintenance.

**⚠ WARNING** Allow the pump to cool prior to servicing. The motor may be very hot and could result in injury.

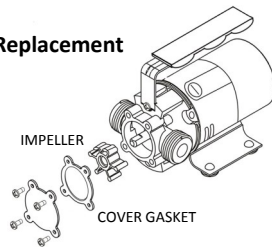
**PUMP RENEWAL KIT:** The supplied kit includes (2) motor brushes, a replacement impeller, and cover gasket. Clean brushes after 50 service hours, noting Left and Right for reinstallation. Brush replacement is typically needed after 100 service hours. Impeller service life will vary.

### Brush Cleaning or Replacement



1. Unplug power cord.
2. Remove both brush caps with screwdriver.
3. Remove motor brushes, noting Left & Right orientation if only cleaning.
4. Insert cleaned or new brushes.
5. Replace caps.

### Impeller Replacement



1. Unplug power cord.
2. Disconnect hoses and drain pump.
3. Remove (4) cover plate screws.
4. Pull out worn or damaged impeller.
5. Clean interior area and coat perimeter and new impeller with vegetable oil.
6. Push new impeller onto shaft, aligning flat side of bore with flat side of shaft, while rotating clockwise.
7. Using new gasket, replace cover cap and securely tighten screws.

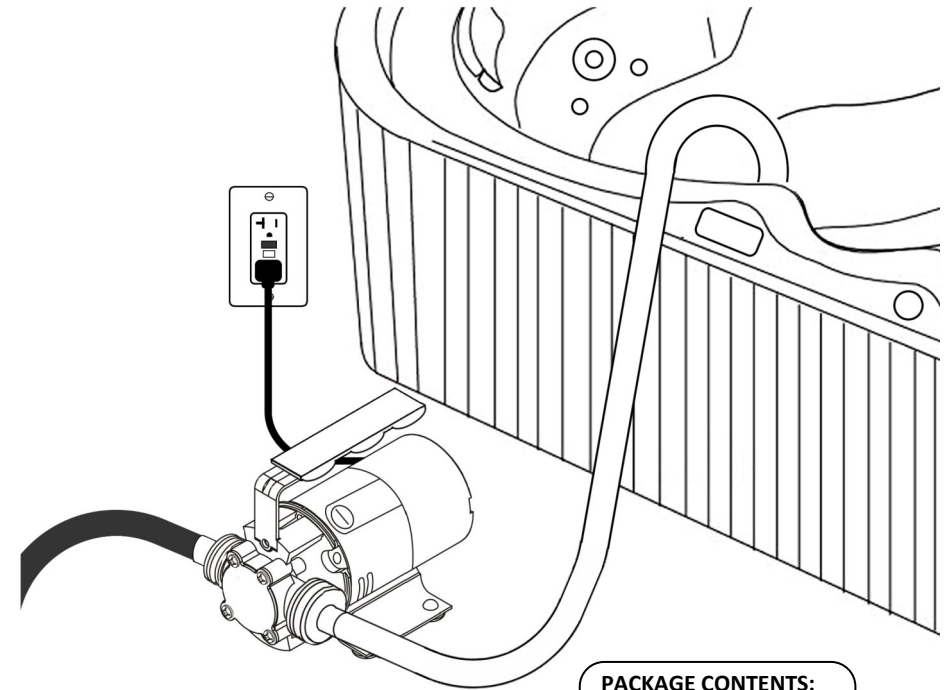


# HydroMaster™

## HOT TUB DRAINING PUMP

MT1092

## Operation & Maintenance Manual



### PACKAGE CONTENTS:

- Draining Pump
- Clear-View Suction Hose
- Pump Renewal Kit

**DO NOT OPERATE DRY - Read Instructions**

Customer Service: (800) 823-3638

**SAFETY GUIDELINES:**

⚠ For your safety, carefully read and follow all instructions in this manual. When you see this safety alert symbol, look for one of the signal words:

**DANGER:** Indicates a hazardous situation, which if not avoided will result in death or serious injury.

**WARNING:** Indicates a hazardous situation, which if not avoided could result in death or serious injury.

**CAUTION:** Indicates a hazardous situation, which if not avoided could result in a moderate or minor injury.

**SAFETY INFORMATION:**

Carefully read these warnings. Know the limitations and applications of this pump. Failure to follow these warnings may result in serious injury or property damage.

⚠ **DANGER** This pump is NOT submersible. Do not submerge in, or directly expose the motor to water. Injury or death could result from electrical shock.

⚠ **DANGER** Do not use for pumping flammable or explosive liquids like gasoline, kerosene, diesel oil, fuel oil, alcohol, etc. Do not use pump in an environment where explosive particles or flammable vapors are present. Injury or death could result. This pump is intended for use with clear water only.

⚠ **DANGER** RISK OF ELECTRICAL SHOCK. This pump is supplied with a grounding conductor and three-prong grounding plug. To reduce the risk of electric shock, be sure it is connected only to a properly functioning and tested Ground Fault Circuit Interrupter (GFCI) protected outlet. It is unsafe to remove the grounding prong from the plug.


⚠ **DANGER** RISK OF ELECTRICAL SHOCK. Unplug pump to disconnect from power before touching this pump when walking or standing on wet surfaces. Avoid puddling near pump by attaching your garden hose to pump discharge fitting, to drain water away from area.

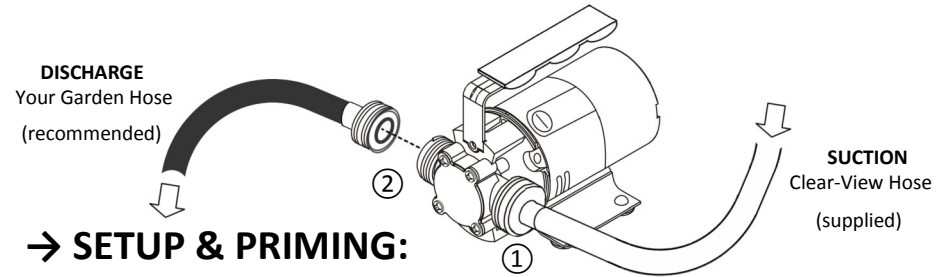
⚠ **WARNING** RISK OF ELECTRICAL SHOCK. Do not use this pump while hot tub is occupied. KEEP CHILDREN AWAY when pump is in use. Do not operate pump unattended. Disconnect power to hot tub prior to operating this pump.

⚠ **WARNING** RISK OF ELECTRICAL SHOCK. Do not lift or carry the pump with the power cord. This could cause exposure of the wire insulation. Protect cord from hot surfaces, sharp objects, chemicals and oils.

⚠ **CAUTION** DO NOT ALLOW PUMP TO RUN DRY. This pump depends on water for cooling and to prevent excessive wear or friction damage to the impeller. Prior to each use, firmly attach the clear suction hose and fill it with water to prime the pump. Then plug in the pump to begin. Running the pump dry for more than 30 seconds may cause overheating. Do not operate the pump unattended. Disconnect immediately when finished draining hot tub.

**SPECIFICATIONS:**

|  | ELECTRICAL       | CORD  | HP   | CONNECTORS  | SUCTION HOSE        | GPH      |
|---|------------------|-------|------|-------------|---------------------|----------|
|   | 120V, 2.3A, 60Hz | 6 ft. | 1/10 | Garden Hose | 5/8" I.D. Clear PVC | 330 Max. |



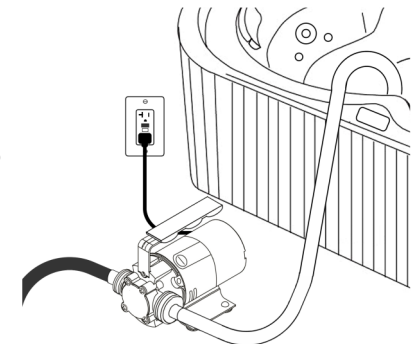
⚠ **DANGER** RISK OF ELECTRICAL SHOCK. Do not connect the pump to a power source until setup has been completed, and pump has been primed with water. **Do not submerge pump.** Shut off power to **unoccupied** hot tub before beginning.

1. Thread the supplied Clear-View suction hose snugly onto the pump's intake fitting ①. Confirm that hose gasket is in place.
2. Recommended: Thread your 5/8" or larger I.D. garden hose snugly onto the pump's discharge fitting ②. For optimal performance, slope downward away.
3. Place the pump on a hard surface beside the exterior of the hot tub.
4. Prime the pump by filling the suction hose with water to flood the pump. Our exclusive Clear-View suction hose makes it easy to visually confirm priming.
5. Place the Clear-View suction hose deeply into the hot tub water. NOTE: Warm spa water will make the PVC hose easily manageable. Avoid kinks.

→ **OPERATION:**

1. Plug primed pump's 6 ft. cord into a GFCI protected outlet to begin draining.
2. If an extension cord is necessary, adhere to wire gauge chart to avoid motor damage:

| AWG:  | 18 | 16 | 14  | 12  |
|-------|----|----|-----|-----|
| FEET: | 25 | 50 | 100 | 150 |



3. Pumping should begin within about 30 seconds. If no water is moving after 30 seconds, disconnect power, check connections, and correct issues to achieve prime. (See Troubleshooting Guide on back page.) Do not leave unattended. Disconnect power immediately when finished draining.

⚠ **CAUTION** DO NOT ALLOW PUMP TO RUN DRY. This pump depends on water for cooling and to prevent excessive wear or friction damage to the impeller.