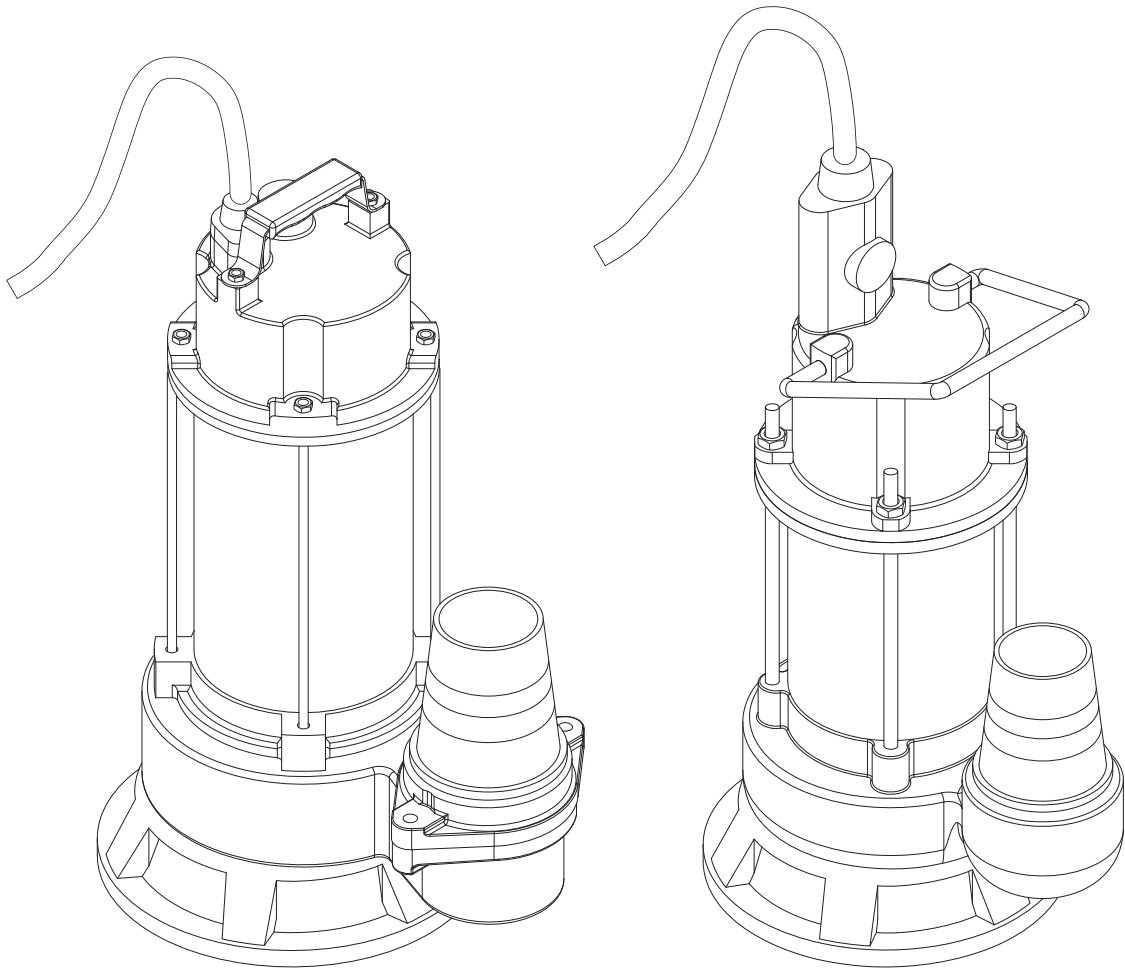




**SUBMERSIBLE TRASH PUMP**  
**MST 2051 • MST 2051/A • MST 3101**  
**MST 3101/A**



**OPERATING/PARTS MANUAL**

## **INTRODUCTION**

This manual provides information and procedures to safely operate and maintain the pump. For your own safety and protection from physical injury, carefully read, understand, and observe the safety instructions described in this manual. Keep a copy of this manual with the unit at all times. Additional copies are available from Magnum Products LLC, or can be found at **www.m-p-llc.com**. *The information contained in this manual was based on machines in production at the time of publication. Magnum Products LLC reserves the right to change any portion of this information without notice.*

**DO NOT MODIFY** or use this equipment for any application other than which it was designed for.

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**FAX: 920-361-4416**  
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**www.m-p-llc.com**

**For technical or parts QUESTIONS, please contact Magnum Products' Customer Support or Technical Support team at 920-361-4442 or toll free at 1-800-926-9768. Please have your serial number available.**

**To ORDER SERVICE PARTS, please contact the dealer from which you purchased the unit, or call Magnum Products to locate a dealer in your area.**

Unit Model Number: \_\_\_\_\_

Unit Serial Number: \_\_\_\_\_

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## SAFETY NOTES



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, WARNINGS, CAUTIONS, NOTICES and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury or death. The following formatting options will apply when calling the readers attention to the DANGERS, WARNINGS, CAUTIONS, NOTICES and NOTES.

### **⚠ 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, may result in minor or moderate injury.

### **NOTICE**

Indicates a hazardous situation which, if not avoided, may result in property or equipment damage.

***Note:** Notes contain additional information important to a procedure and will be found within the regular text body of this manual.*

## OPERATING SAFETY



Before using the pump be sure to read and understand all of the instructions! This equipment was designed for specific applications; DO NOT modify or use this equipment for any application other than which it was designed for. Equipment operated improperly or by untrained personnel can be dangerous! Read the operating instructions and familiarize yourself with the location and proper use of all instruments and controls. Inexperienced operators should receive instruction from someone familiar with the equipment before being allowed to operate the pump. The following points should be practiced at all times:

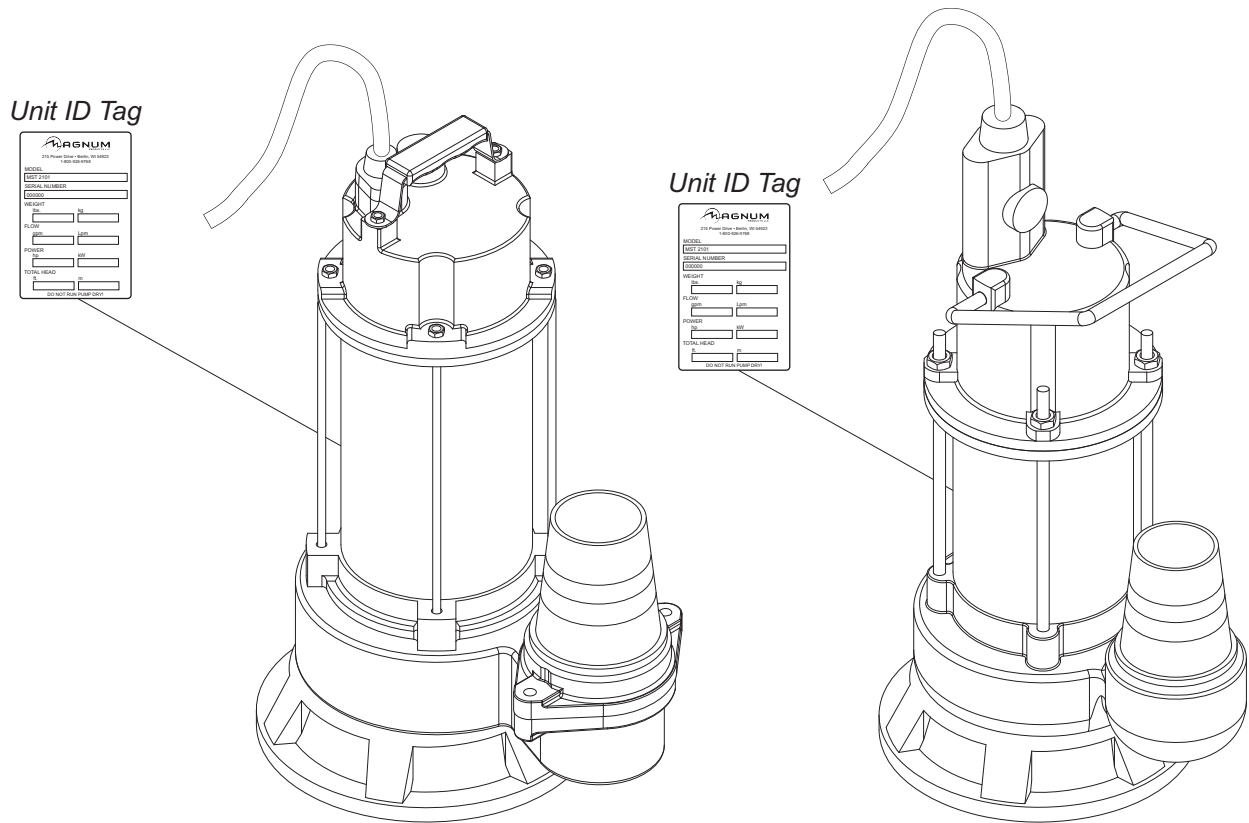
- **NEVER** start a unit in need of repair.
- **NEVER** operate the pump if any of the following conditions exist during operation:
  1. Sparking occurs.
  2. Combustible surface is present.
  3. Protective covers are loose or missing.

### **⚠ WARNING**

**Never pump volatile or corrosive chemicals or solutions with this pump. These fluids could create serious health and environmental hazards. High pressure increases the chance of pump explosion which may result in serious personal injury.**

## UNIT SERIAL NUMBER LOCATION

Refer to the location illustrated below to find the unit ID tag. Important information, such as the unit serial number and model number are found on this tag. Record the information from this tag, so it is available if the tag is lost or damaged. When ordering parts or requesting technical service information, you may be asked to specify this information.



## SPECIFICATIONS

Read this manual carefully before attempting to use this pump. The potential for property damage, personal injury or death exists if this equipment is misused or installed incorrectly.

MAGNUM MODEL	MST 2051	MST 2051/A	MST 3101	MST 3101/A
Motor Type	1 Ø, 60 Hz	1 Ø, 60 Hz	1 Ø, 60 Hz	1 Ø, 60 Hz
Amperage Range (Min. - Max.)*	4.4 - 5.5A	4.4 - 5.5A	9.3 - 13.0A	9.3 - 13.0A
Voltage	120V	120V	120V	120V

### Pump Output

Discharge Diameter	2 in. (50 mm)	2 in. (50 mm)	3 in. (80 mm)	3 in. (80 mm)
Maximum Head	39 ft. (12 m)	39 ft. (12 m)	59 ft. (18 m)	59 ft. (18 m)
Maximum Discharge	52.8 gpm (199 Lpm)	52.8 gpm (199 Lpm)	100.4 gpm (379 Lpm)	100.4 gpm (379 Lpm)
Power	.5 hp (373 W)	.5 hp (373 W)	1 hp (746 W)	1 hp (746 W)
Solids Handling Capacity	.3x.9 in. (7x20 mm)	.3x.9 in. (7x20 mm)	.4x1.2 in. (10x30 mm)	.4x1.2 in. (10x30 mm)

### Weights and Dimensions

Dry Weight	23.5 lbs. (10.7 kg)	24 lbs. (10.9 kg)	51.5 lbs. (23.4 kg)	53 lbs. (24 kg)
Shipping Weight	24.5 lbs. (11.1 kg)	25 lbs. (11.3 kg)	53.5 lbs. (24.3 kg)	55 lbs. (24.9 kg)
Maximum Diameter	9.05 in. (230 mm)	9.05 in. (230 mm)	12.59 in. (320 mm)	12.59 in. (320 mm)
Maximum Height	16.33 in. (415 mm)	16.33 in. (415 mm)	19.68 in. (500 mm)	19.68 in. (500 mm)
Maximum Box Height	16.5 in. (419 mm)	16.5 in. (419 mm)	20 in. (508 mm)	20 in. (508 mm)
Maximum Box Width	8 in. (203 mm)	8 in. (203 mm)	10 in. (254 mm)	10 in. (254 mm)
Cable Length	20 ft. (6 m)	20 ft. (6 m)	20 ft. (6 m)	20 ft. (6 m)

### Other Specifications

Cable Diameter	16AWG	16AWG	14AWG	14AWG
Impeller Material	Urethane	Urethane	Urethane	Urethane
Impeller Type	Vortex	Vortex	Vortex	Vortex
Strainer Material	ABS	ABS	ABS	ABS
Seal	Carbon Ceramic	Carbon Ceramic	Carbon Ceramic	Carbon Ceramic
Automatic Float	No	Yes	No	Yes

\*Amperage varies upon head and flow.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

## OPERATING THE PUMP

1. Connect the discharge hose with the proper fittings.
2. Place the pump in the water. Lower by attaching a strong rope to the handle. The pump should be placed on a flat, hard surface in at least 2 inches of water.

### **⚠ WARNING**

**Never lower or move the pump with the electrical cord. Damage to the cord or cord seal could result in equipment damage and/or electrocution.**

### **NOTICE**

Do not install the pump on clay, dirt, or sand surfaces. Small stones, gravel, sand, and mud can clog the pump and reduce the performance or cause malfunction of the pump. If necessary, place the pump on a concrete block or slab to prevent the pump from sinking.

3. Connect the grounding-type plug to an outlet.
4. The pump should begin to cycle. To ensure proper operation, observe the pump to make sure it has enough water to avoid cavitation.

### **⚠ WARNING**

**Never operate a pump or pump motor with wet hands. Never stand on a wet or damp surface when operating the pump. Doing so could result in equipment damage or personal injury.**

### **⚠ WARNING**

**To prevent overheating, always keep the pump completely submerged when running continuously. Running the pump continuously while not submerged could result in equipment damage.**

## CLEANING THE PUMP

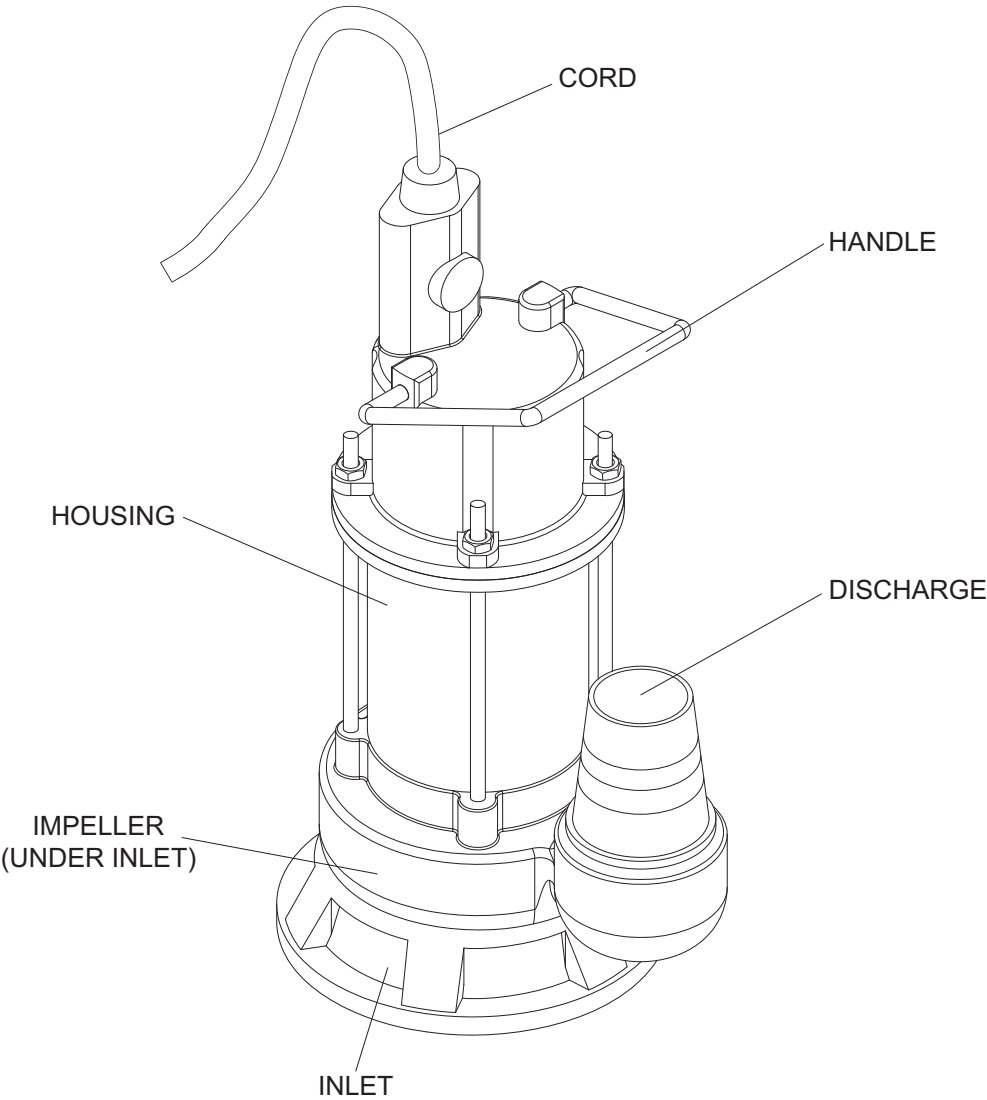
After running the pump, wash the pump in clean water. Keep inlet screens clean at all times, and always check the screens before each use.

## STORING THE PUMP

Please take the following actions in preparing the unit for storage.

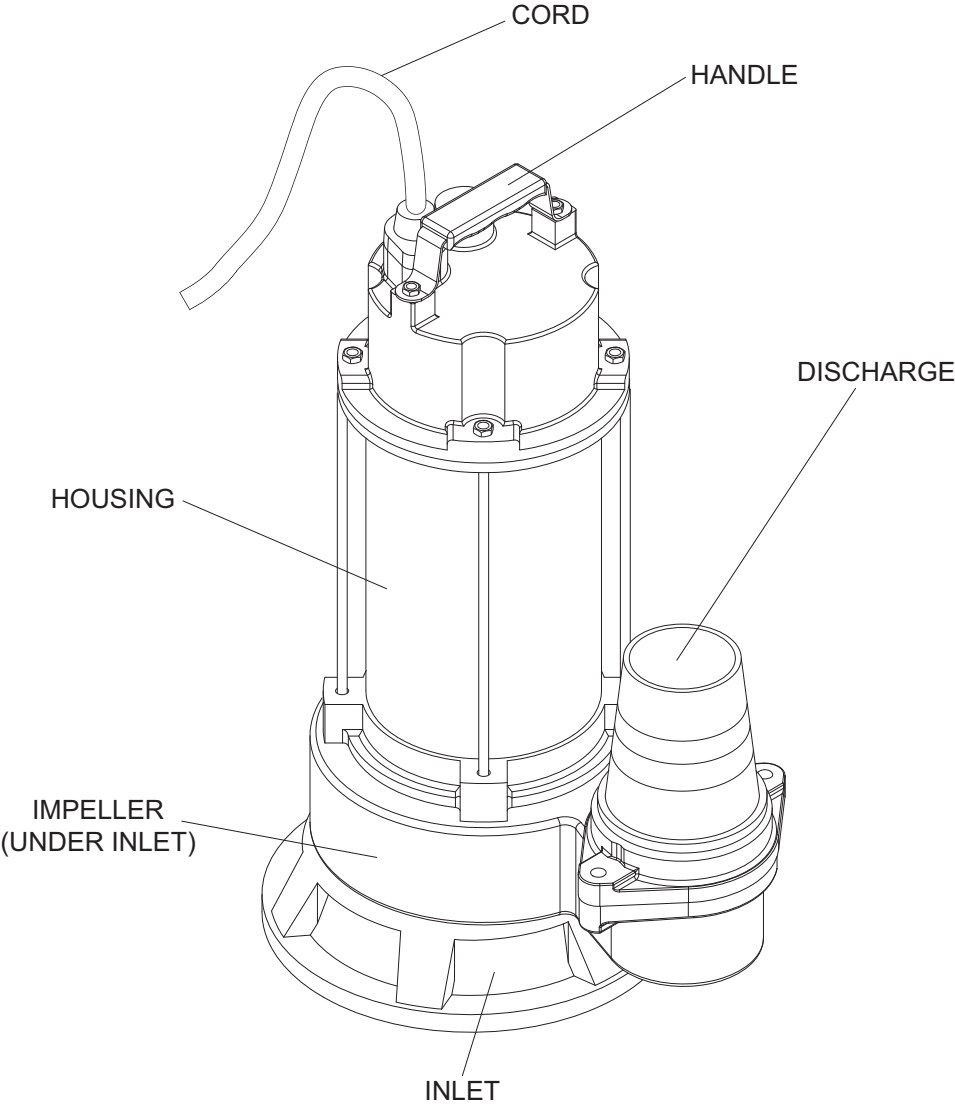
1. Remove pump impeller cover and clean inside of pump housing. Coat inside of pump with a light film of oil to reduce corrosion.
2. Tape up ports to prevent anything from falling into pump.
3. Store in a clean, dry area.

**COMPONENT LOCATIONS - MST 2051 & MST 2051/A**

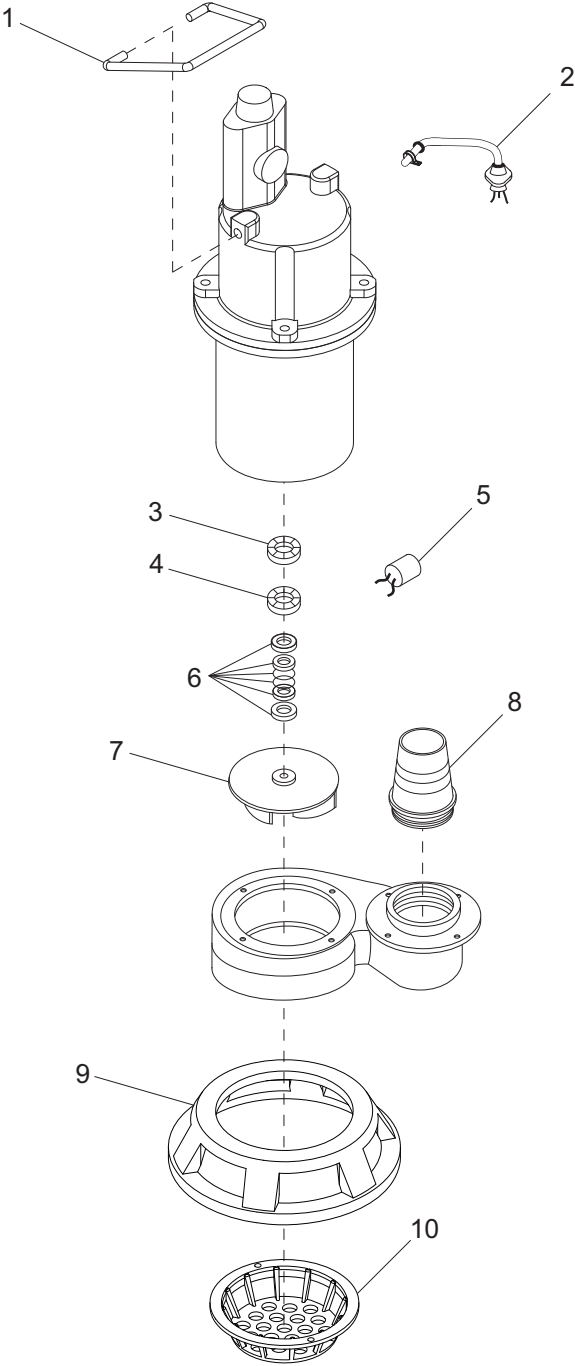




**COMPONENT LOCATIONS - MST 3101 & MST 3101/A**

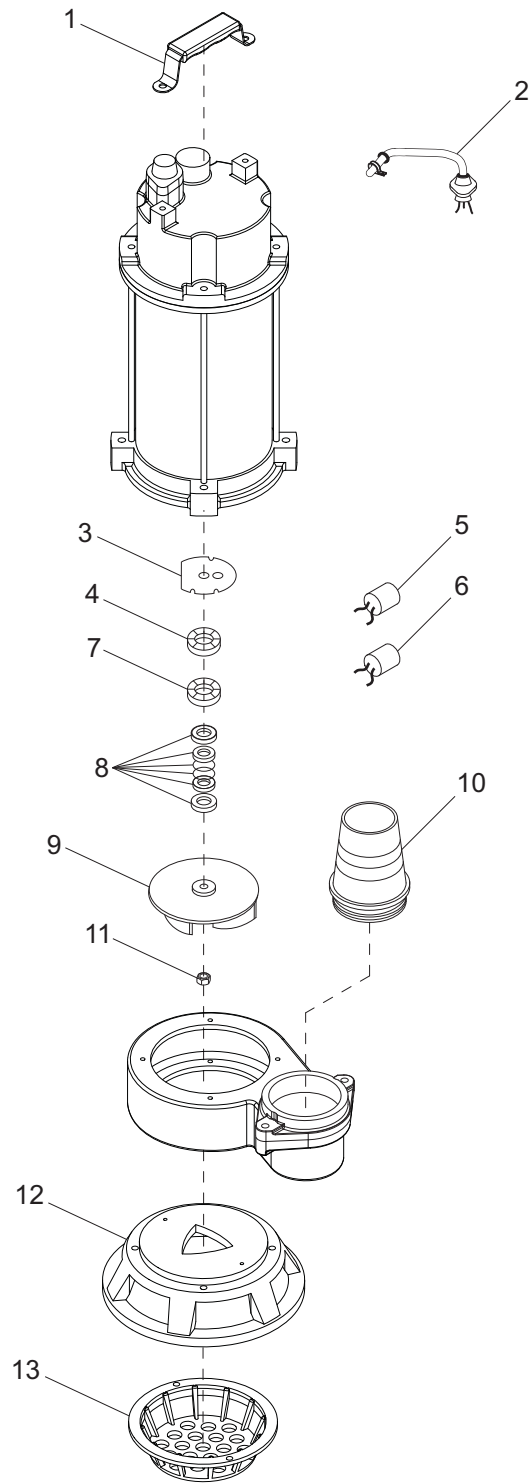


UNIT ASSEMBLY AND PARTS - MST 2051 & MST 2051/A



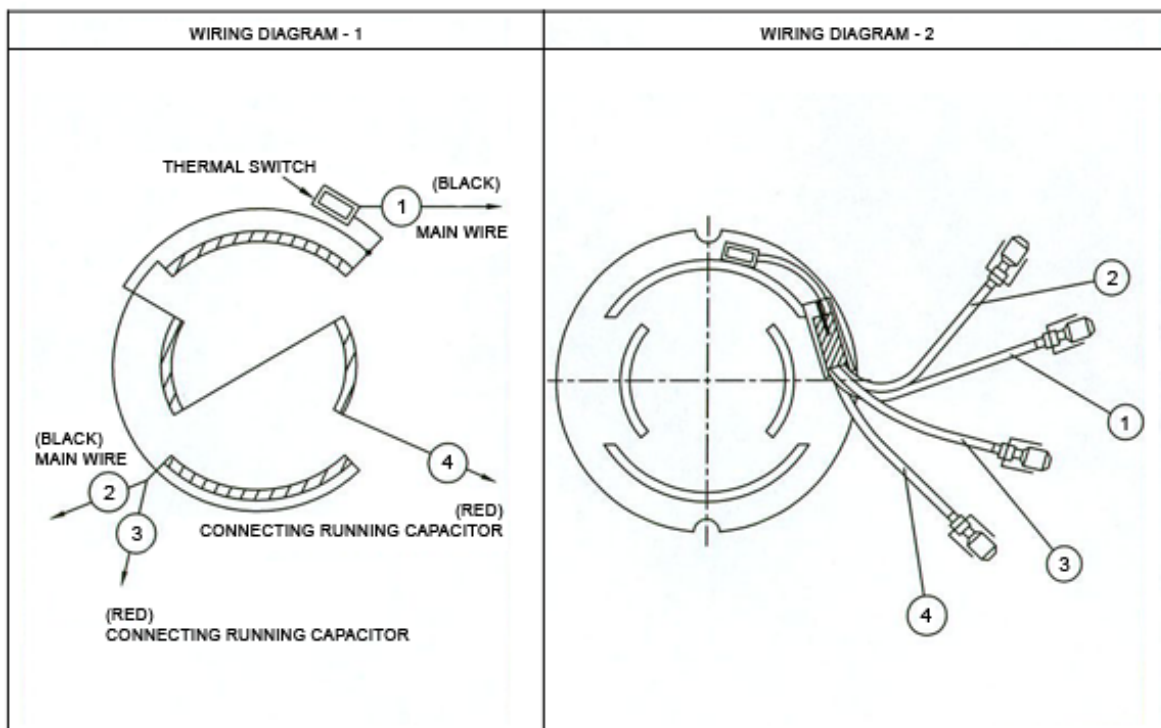
ITEM NO.	PART NO.	QTY	DESCRIPTION	NOTES
1	41617	1	Handle	
2	41610	1	Power cord	
3	41638	1	Upper bearing	
4	41642	1	Lower bearing	
5	41624	1	Capacitor - run	
6	41653	1	Mechanical seal	
7	41696	1	Impeller	
8	41669	1	Hose coupling	
9	41706	1	Suction cover	
10	41713	1	Strainer	
-	41675	1	Float switch	Not shown
-	41725	1	Band cable - fixed	Not shown
-	41745	1	O-ring - .375"	Not shown
-	41754	1	O-ring - .25"	Not shown

# UNIT ASSEMBLY AND PARTS - MST 3101 & MST 3101/A

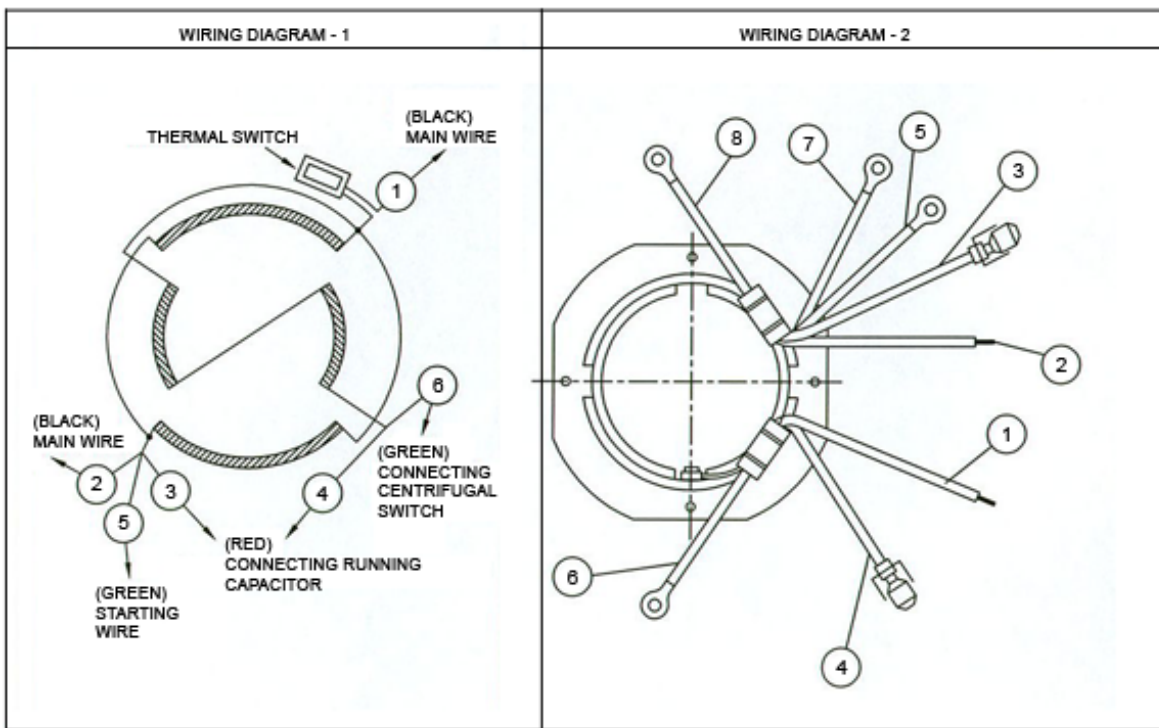


ITEM NO.	PART NO.	QTY	DESCRIPTION	NOTES
1	41622	1	Handle	
2	41615	1	Power cord	
3	41720	1	Base-capacitor	
4	41636	1	Upper bearing	
5	41625	1	Capacitor - run	
6	41616	1	Capacitor - start	
7	41642	1	Lower bearing	
8	41654	1	Mechanical seal	
9	41697	1	Impeller	
10	41673	1	Hose coupling	
11	41781	1	Nut M10-1.25	
12	41706	1	Suction cover	
13	41713	1	Strainer	
-	41665	1	Oil seal	Not shown
-	41745	1	O-ring - .375"	Not shown
-	41725	1	Band cable - fixed	Not shown
-	41675	1	Float switch	Not shown

# WIRING DIAGRAM - MST 2051 & MST 2051/A



# WIRING DIAGRAM - MST 3101 & MSD 3101/A



REV: C  
PART NO: 41865  
12.28.09