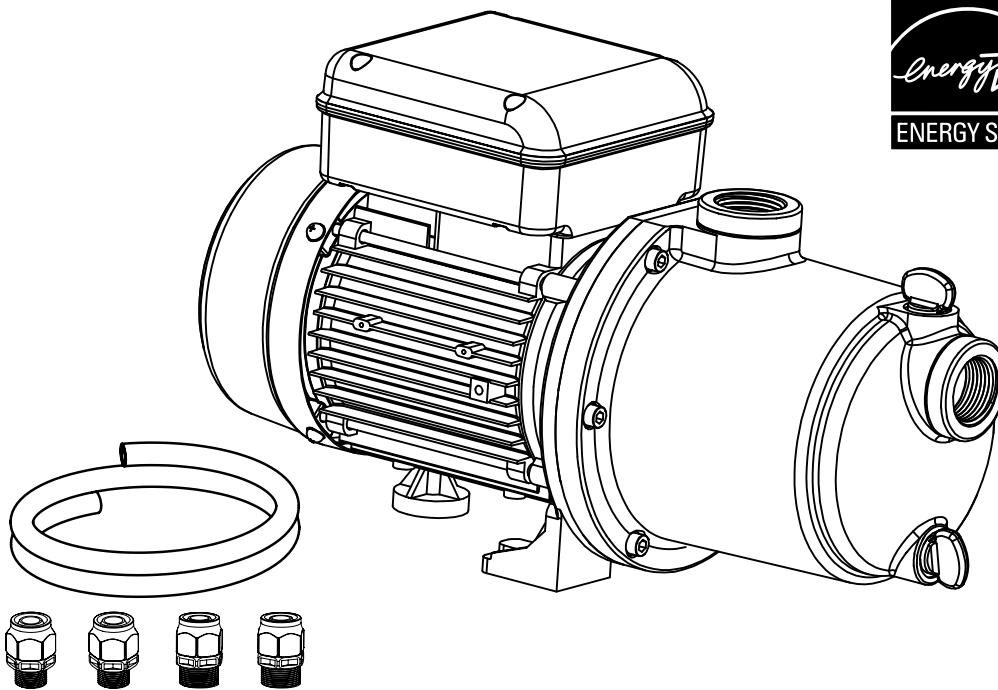




# OWNER'S MANUAL

## UNIBOOST SERIES



Questions, problems, missing parts? Before returning to the store,  
call Customer Service  
8 a.m. - 5 p.m., EST, Monday - Friday

815-675-7000 or email [customersupport@intermatic.com](mailto:customersupport@intermatic.com)

[Intermatic.com](http://Intermatic.com)



Thermally Protected  
Available for Indoor/Outdoor Use  
Enclosure Type 3

230/115 V  
5.8/11.6 A  
60 Hz

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# Pump Overview

The UniBoost Booster Pump provides high pressure water to your pressure side automatic pool cleaner. This booster pump is **not self-priming** and should not run unless the filter pump is running.

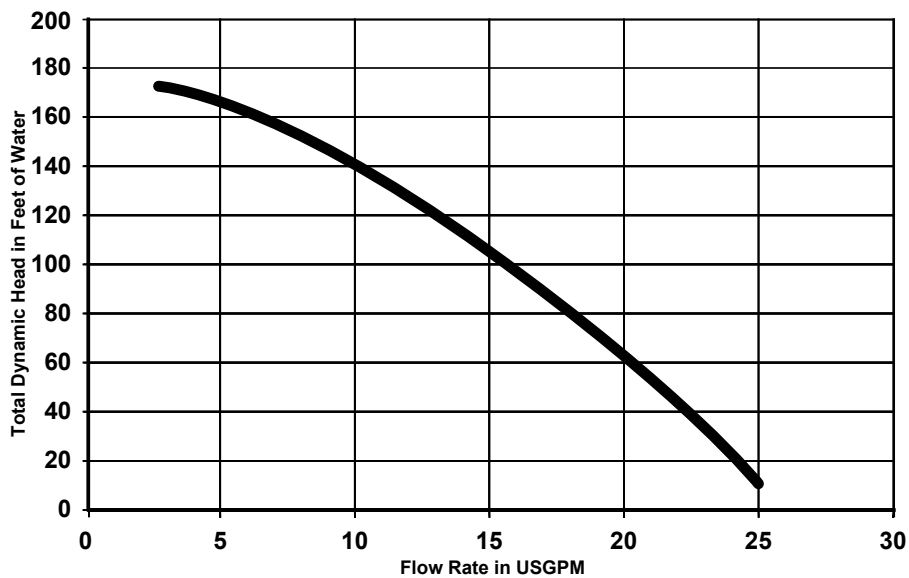
## OVERVIEW

- 1.5 THP booster pump
- Made from durable, corrosion-proof materials
- Hoses and adapters included
- Ideal replacement for pressure-side booster pumps

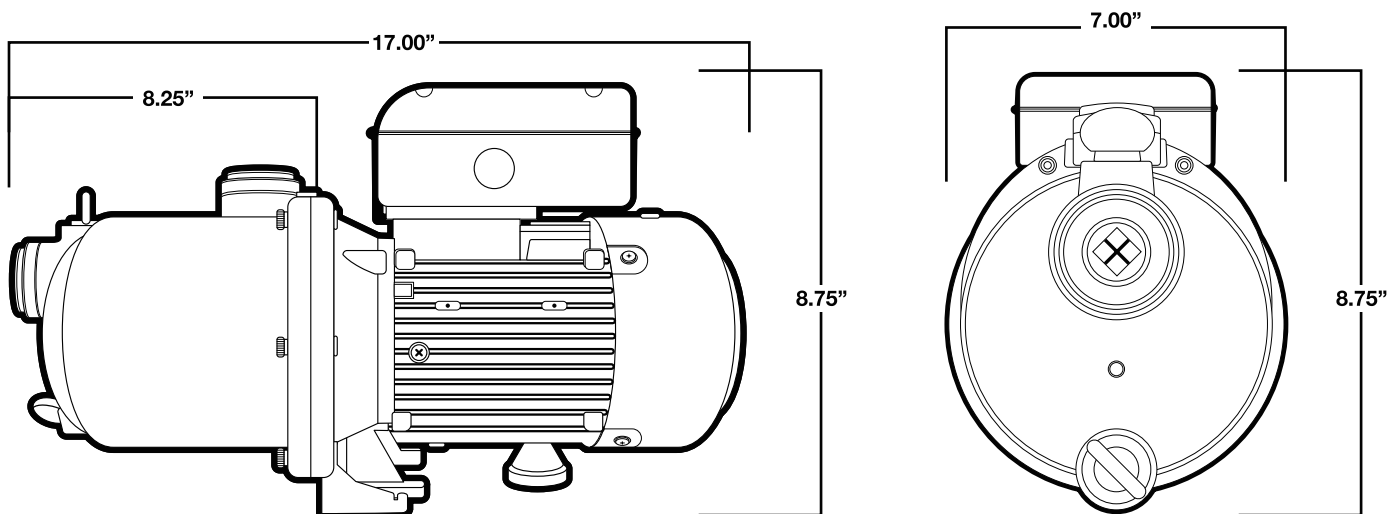
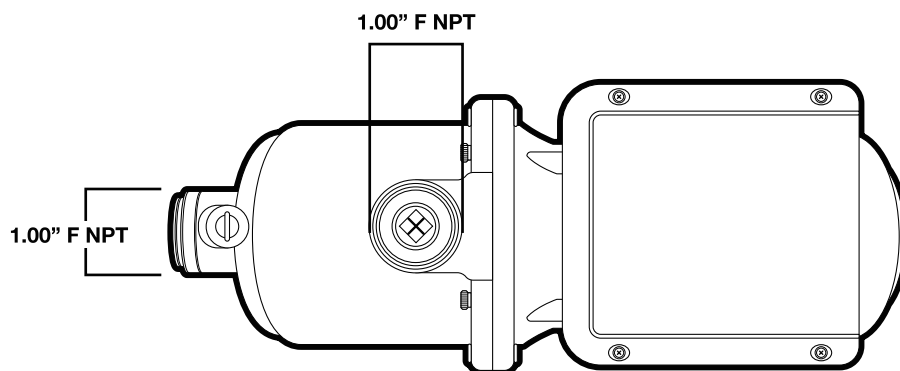
## ELECTRICAL SPECIFICATIONS

- 230/115 Volt Motor
- 5.8/11.6 Amps
- 60 Hz, Single Phase
- 1.5 THP
- .60 WEF (Weighted Energy Factor)

# Performance & Dimensions



MODEL NO.	HP	VOLTS	AMPS	RPM	60 CYCLE 1 PHASE	SHIP WT.
51500-AQP1	1.5	230/115V	5.8/11.6	3450	YES	24 LBS



# Safety Information

## DESCRIPTION

The UNIBOOST non-self priming Booster Pump provides suction side pool cleaners with high pressure water to maximize cleaning results.

This Booster Pump should only be used when the pool filtration pump is operating.

## UNPACKING

After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts.

## SAFETY GUIDELINES

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS.

As a user, you are important to us. Thus, one copy of the Operating Instructions and Parts Manual is included with each pump shipped from our factory. This manual contains important sections relative to user safety, use, maintenance, warranty, etc. It is a good idea to ask for extra copies for other installers/users. Extra copies, free of charge, are available.

Do not use pump for any purpose other than pool/spa application. Components have not been designed for other applications. Severe pump failure, may result. Any unapproved use will void warranty.

### CALIFORNIA PROPOSITION 65



**WARNING:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.



**DANGER:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.



**WARNING:** Operating the Booster Pump without the filtration pump will cause damage and will VOID warranty.



**CAUTION:** This pump is for use with permanently-installed pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently- installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity. Do not install within an outer enclosure or beneath the skirt of a hot tub or spa.

**NOTICE:** PLEASE SAVE THESE INSTRUCTIONS.

## ALWAYS FOLLOW BASIC SAFETY PRECAUTIONS WITH THIS EQUIPMENT, INCLUDING:

- Provide sufficient ventilation to maintain air temperature below the maximum ambient temperature rating shown on the motor nameplate. Pump house must allow adequate ventilation to assure the ambient temperature remains below the motor rating when the pump is operating.
- Locate the pump on a non combustible surface. The surface should be hard, level, dry, well ventilated, and out of direct sunlight. The surrounding area should provide protection from the elements and allow sufficient space for maintenance and service. Ensure the drainage will flow away from the pump. To reduce vibration and pipe stress, use anchor bolts to secure pump base to surface. Support the suction and discharge piping.
- Design the piping system to allow the pump suction inlet height to be as close to water level as possible. Mount the pump below water level for easy priming. If the pump must be located above the filled water level, keep the vertical distance to a minimum. Use short, direct piping to the suction as this will minimize friction loss.



**WARNING:** Fire and burn hazard. Motors run at high temperatures. Do not allow leaves, debris, or foreign matter to collect around the pump motor. Keep ventilation holes open. Allow the motor to cool before handling. Keep flammable liquids away.

- If the thermal overload protection in the motor trips or if the GFCI trips, determine the reason and correct the problem before re-starting pump.
- Use rigid or flexible PVC pipe. Ensure pipe ends are clean and free of any flash caused by cutting. Use the proper glue for the type of pipe selected.

# Safety Information



**NOTE:** Use a supplier recommended primer to ensure glued joints are secure. Many local codes require primer with a purple tracer to verify primer use.

Consider climatic conditions when applying adhesives. Atmospheric conditions with high humidity will make the adhesive action of certain glues less effective. Follow the manufacturer's instructions.

## POOL SAFETY GUIDELINES

### RESPONSIBLE ADULT SUPERVISION

Constant and responsible adult supervision is mandatory in the pool or spa environment. Always supervise children around pools and spas. Never allow a child to play in a way that could permit the child's hair to come near the drain cover.

### DRAINS, SUCTION FITTINGS, AND JETS

Keep hair and clothing away from the suction fitting drain cover. Wear a bathing cap or pin hair up if you have long hair. Current grates and covers help prevent body or hair entrapment. Make sure that drain covers meet the ANSI/ASME A112.19.8 standard. Safety doors should be installed in all pool cleaner wall suction lines. Pools or spas with drain covers that are broken, missing, or not adequately secured should not be used until the proper replacement has been installed.

### ELECTRICAL HAZARDS

A licensed electrician, experienced in swimming pools and spas, should inspect your equipment to make sure everything is properly grounded, bonded, and protected by proper GFCI circuits according to Article 680 of the National Electric Code.

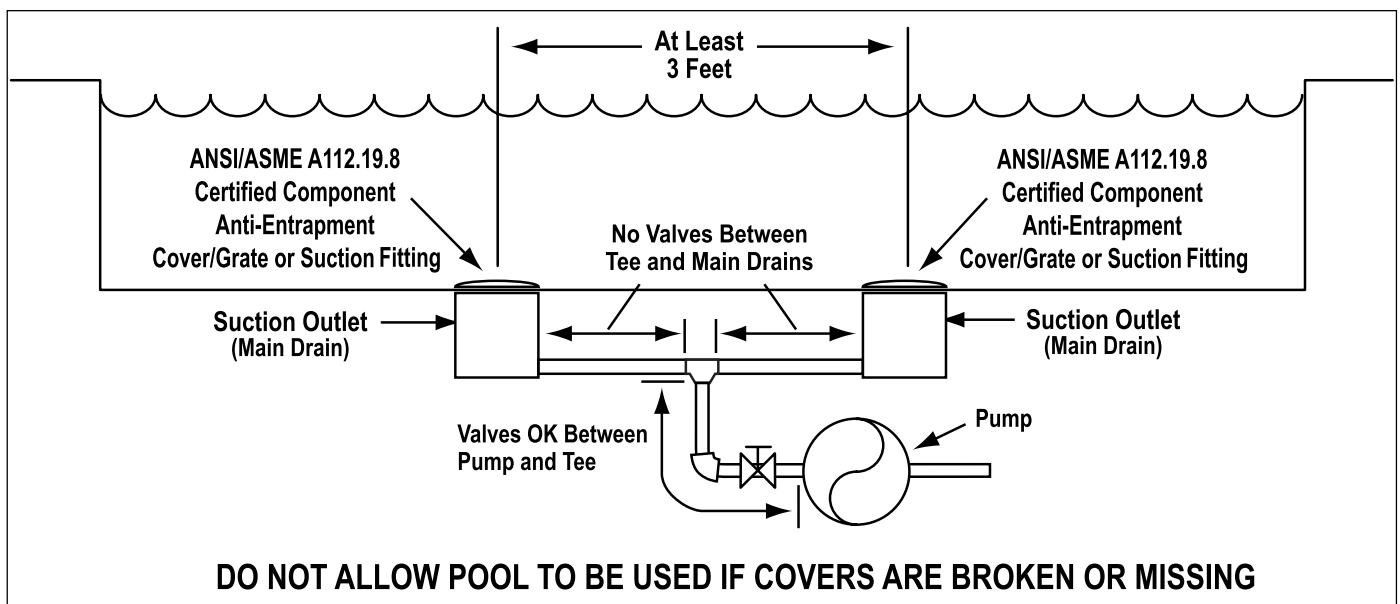
### DROWNING PREVENTION

Install and routinely inspect fences, self-closing and latching gates, baby barrier fences, and alarms. Eliminate incidental routes to pool including machinery or equipment that provides a route over fencing into pool area. **INDOOR INSTALLATIONS**

Pools and spas located indoors must comply with ANSI/ASHRAE (American Society of Heating, Refrigeration and Air-Conditioning Engineers) standard 62-2001 to ensure adequate ventilation and safe use.

### WARNING SIGNS

Protect your family and guests. Make sure that all warning signs provided by the manufacturer, builder, or installer are displayed according to the manufacturer's specifications.

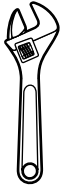


# Installation

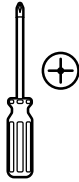


**WARNING:** Shock Hazard! Only qualified, licensed personnel should install pump and wiring. A professional trained and familiar with pool pump installation must perform pressure tests.

## TOOLS REQUIRED



Wrench



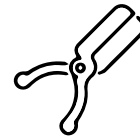
Phillips  
screwdriver



PTFE  
(Teflon™)  
Tape



Safety  
Goggles



Hose  
Cutters

## INSTALLATION INSTRUCTIONS

The pump mount must be located away from corrosive or flammable chemicals. Do not connect the pump to a municipal water system. The pump is only designed for pool or spa installation.

### THREADED CONNECTIONS

Use only Plumber's Seal tape or equivalent on threaded plumbing connections. Other pipe compounds may damage threads. Do not use silicone or petroleum based compounds.

### BOOSTER PUMP PLUMBING

The UNIBOOST Booster Pump requires a dedicated return line (use PVC pipe with minimum 3/4" but 1-1/2" is recommended — please avoid flexible PVC) and ensures constant flow from the filtration pump. Ensure the dedicated line is upstream from the equipment.

If a heater is included, ensure the Booster Pump is connected to the return line after the heater and a minimum of 3 feet from the heater output

### INSTALLING THE PUMP AND HOSES

1. Mount the pump using two (2) concrete anchor screws.
2. Apply Teflon Tape™ to the threaded adapters.
3. Screw the adapters into the pump outlet.



**CAUTION:** Overtightening can cause cracking and damage to the pump and threaded connectors.

4. Cut the hose to the appropriate length. Quantity - Two (2) 6 ft. hoses have been provided. for the inlet and outlet.
5. Remove the adapter cap from the threaded barb and slide it over the hose. Push the hose onto the adapter until the hose is flush, completely covering the threads. Add water or use lubricant to simplify the connection.
6. Screw the adapter cap and tighten to lock in the hose on the barb. No threads should be visible once complete.
7. Repeat Step #6 for the remaining three (3) barb connections.

Once Step #7 is complete, confirm water flow to the Booster Pump by unscrewing the inlet supply line at the Booster Pump inlet and turning ON the filtration pump. **WATER SHOULD BE FLOWING**

# Electrical

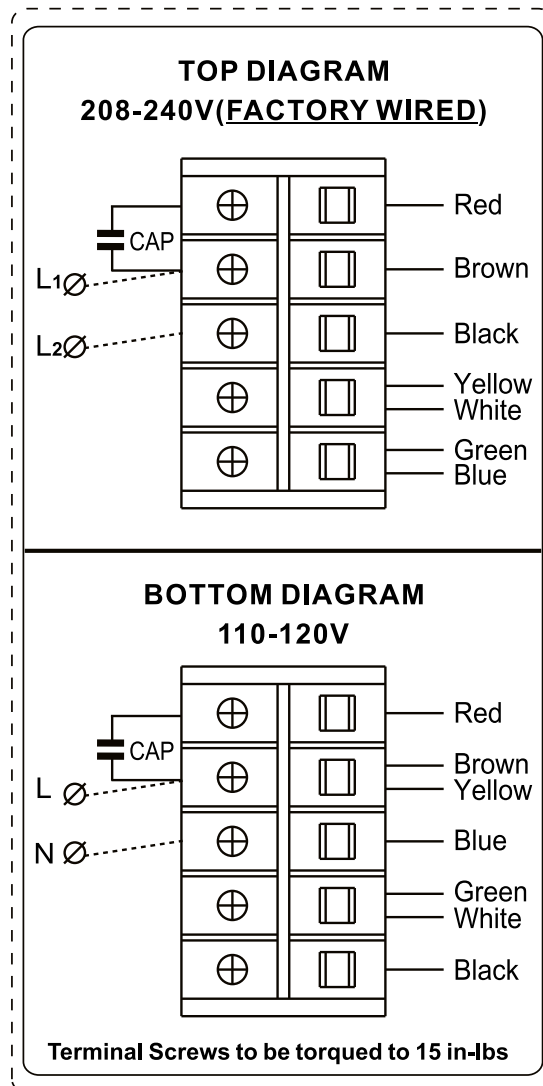
A Ground Fault Circuit Interrupter (GFCI) is required in the circuit. For size of GFCI required see the GFCI manufacturer's instructions.

- Never ground to a gas supply line.
- To avoid dangerous or fatal electrical shock turn the pump OFF, disconnect the power at its source, lock out power to motor, and place a tag on the dedicated GFCI circuit breaker indicating the power is to remain OFF before working on electrical connections.

Ground Fault Circuit Interrupter (GFCI) tripping indicates an electrical problem. If GFCI trips, determine the reason for tripping. If you are uncertain, have a qualified electrician inspect and repair the electrical system. Verify that the supply voltage matches the nameplate voltage. Incorrect voltage can cause fire or seriously damage the motor and voids the warranty.

## VOLTAGE & CHANGING DEFAULT SETTING

Voltage at the motor must be within 10% of the motor nameplate rated voltage or the motor may overheat, causing overload tripping and reduced component life. Verify voltage is correct before applying power. If voltage does not fall within the specified range during operation consult the power company.



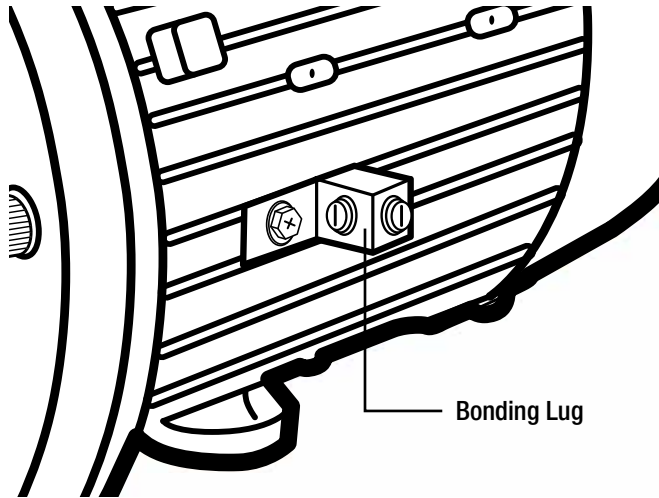
BOOSTER Pump Wiring Diagram

# Electrical

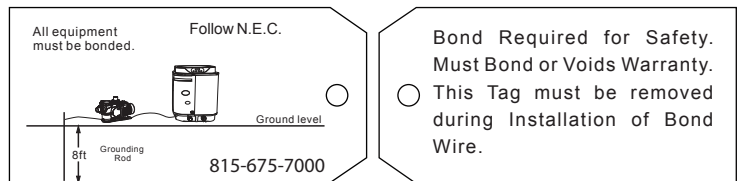
## GROUNDING/BONDING

Install, ground, bond and wire motor according to local or National Electrical Code requirements. Permanently ground motor. Use green ground terminal provided under motor canopy or access plate; use size and type wire required by code. Connect motor ground terminal to electrical service ground.

Connect a No. 8 AWG (8.4 sq.mm) solid copper bonding wire to the bonding lug provided on the motor housing and to all metal parts of the swimming pool, spa, or hot tub and to all electrical equipment, metal piping or conduit within 5 feet (1.5 m) of the inside walls of swimming pool, spa, or hot tub.



BOOSTER PUMP Bonding Lug Location



BOOSTER PUMP Bonding Tag

## WIRING

Pump must be permanently connected to circuit. Table I gives correct wire and circuit breaker sizes for the pump alone. It is recommended to use a dedicated breaker; however if other lights or appliances are also on the same circuit, be sure to add their amp loads to pump amp load before figuring wire and circuit breaker sizes. (If unsure how to do this or if this is confusing, consult a licensed electrician.) Use the load circuit breaker as the master on-off switch.

Install a Ground Fault Circuit Interrupter (GFCI) in circuit; it will sense a short-circuit to ground and disconnect power before it becomes dangerous to pool users. For size of GFCI required and test procedures, see GFCI manufacturer's instruction.

In case of power outage, check GFCI for tripping (which will prevent normal pump operation). Reset if necessary.



**NOTE:** If you do not use conduit when wiring motor, be sure to seal wire opening on end of motor to prevent dirt, bugs, etc. from entering..

MOTOR HP	BRANCH FUSE RATING AMPS*	MAX. LOAD AMPS	VOLTAGE/HZ/PHASE	SERVICE TO MOTOR - DISTANCE IN FT.	
				0-100'	101-200
				AWG WIRE SIZE	
1.5	20	11.6	115/60/1	12	10
1.5	15	5.8	230/60/1	14	10

Wire Gauge Matrix For UNIBOOST Series Pumps



## Operation



**DANGER:** Risk of fire and burns. Motors run at high temperatures. To reduce the risk of fire, do not allow leaves, debris, or foreign matter to collect around the pump motor. To avoid burns when handling the motor, let it cool for 20 minutes before trying to work on it. An automatic internal cutoff switch protects the motor from heat damage during operation.



**WARNING:** Hazardous Suction. Can trap hair or body, causing severe injury or death. Do not block suction. Keep small children under close adult supervision at all times.



**NOTE:** Do NOT run the pump dry! It will void your warranty and may damage seals, causing leakage and flooding. Fill the pump with water before starting the motor.



**NOTE:** Pump prime time will depend on vertical distance and length of suction line. If the pump does not prime, make sure that all valves are open and the suction pipe is submerged. Verify there are no leaks in suction lines. See Troubleshooting Guide for further assistance.

## OPERATION OF BOOSTER PUMP

### TURNING ON THE PUMP

1. Turn ON filtration pump and remove the air from the filter and close the air relief valve.
2. Once filter pump has been turned ON, supply power to the Booster Pump.
3. If the Booster Pump does NOT prime, please see Troubleshooting Guide and check for suction leaks.

## Maintenance

All of our pumps are shipped from the factory with DANGER and/or WARNING labels already on the pump. These labels contain a series of basic, yet extremely important safety messages for the user and bystander. Regardless of how well these labels are attached or how scratch resistant or wear-resistant they may be, it is possible that, in time, the wording may become illegible with normal use. Whenever you are repairing the pump, performing routine maintenance, or have the opportunity to inspect the pump, make sure the label is readable. If the label is not legible, replace the label with an adhesive version that is available at no charge by calling 815-675-7000. The unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump and have the problem corrected by a qualified service representative before using.

Use only parts supplied by the manufacturer. Similar looking parts may not have sufficient strength for safe operation.

The only routine maintenance needed is inspection/cleaning of the strainer basket. Debris or trash that collects in the basket will choke off water flow through the pump.



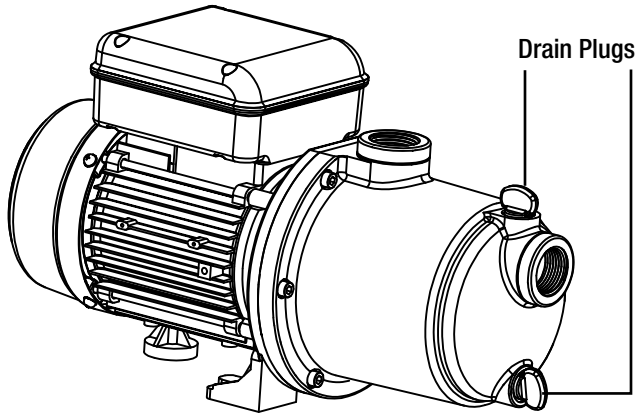
**WARNING:** Hazardous suction can trap hair or body parts, causing severe injury or death. Do not block suction.



**WARNING:** Risk of electric shock . Can shock, burn or kill. Disconnect power before working on pump or motor .

**TO PREVENT PUMP FROM FREEZING, REMOVE TRAP COVER AND DRAIN THE TANK BODY THROUGH THE TWO DRAIN PLUGS PROVIDED. CLEAN PUMP THOROUGHLY; REPLACE TRAP COVER.**

# Maintenance



UNIBOOST Series Pump Drain Plugs



**WARNING:** To avoid dangerous or fatal electrical shock hazard, turn OFF power to the motor before draining the pump. Disconnect power at its source, lock out the power, and place a tag on the dedicated GFCI circuit breaker indicating the power is to remain off.



**NOTE:** Tighten trap cover by hand only (no wrenches)! If pump is not anchored, use caution to avoid breaking attached piping.



**NOTE:** Allowing the pump to freeze will damage the pump and void warranty! Use only non-toxic antifreeze. Do not use automotive antifreeze. It is highly toxic and may damage plastic components in the system.

## STORAGE / WINTERIZING

**NOTICE** Allowing pump to freeze will damage pump and void warranty!

**NOTICE** Do not use anti-freeze solutions (except propylene glycol) in your pool/spa system. Propylene glycol, or “RV antifreeze”, is non-toxic and will not damage plastic system components; other anti-freeze formulas are highly toxic and may damage plastic components in the system.

Drain all water from pump and piping when expecting freezing temperatures or when storing pump for a long time (see Draining The Pump).

Keep motor dry and covered during storage. To avoid condensation/corrosion problems, do not cover pump with plastic.

For outdoor/unprotected installations:

1. Enclose entire system in a weatherproof enclosure.
2. To avoid condensation/corrosion damage, allow ventilation; do not wrap system in plastic.
3. Use a 40% propylene glycol/60% water solution to protect pump to -50°F (-46°C).

## STARTUP FOR WINTERIZED EQUIPMENT

1. Remove any temporary weather protection placed around system for shutdown.
2. Follow filter manufacturer’s instructions for reactivation of the filter.
3. Inspect all electrical wiring for damage or deterioration over the shutdown period. Have a qualified serviceman repair wiring as needed.
4. Inspect and tighten all watertight connections.
5. Open all valves in suction and return piping.
6. Remove any winterizing plugs in piping system.
7. Drain all antifreeze from system.
8. Close all drain valves and replace all drain plugs in piping system.
9. Prime pump according to instructions in Priming Pump.

# Troubleshooting

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Read and understand the safety and operating instructions in this manual before doing any work on the pump! Only qualified personnel should electrically test the pump motor!

## COMMON DIAGNOSIS & SUGGESTIONS

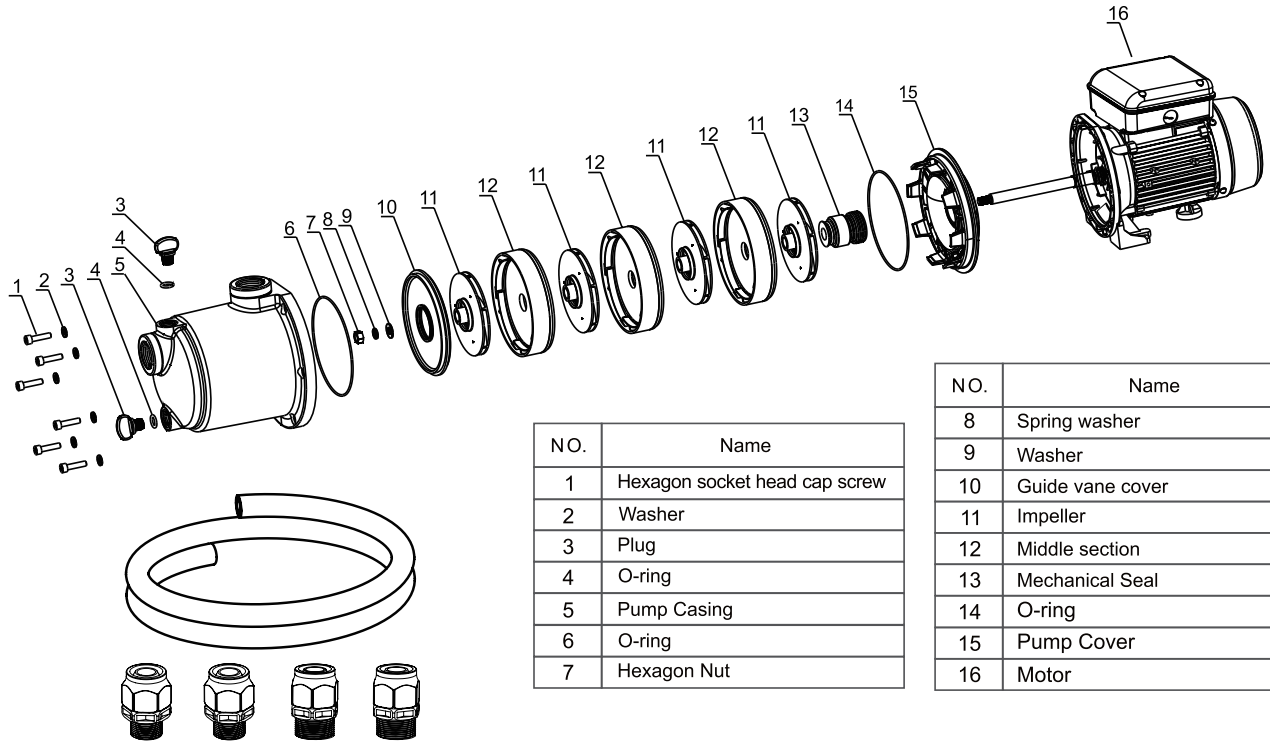
1. Pump will not turn ON. Confirm power to the motor. — Confirm terminal wiring is correct. Confirm impeller is loose and free.
  2. Poor performance or cleaner movement limited. — Check to see if inlet or outlet lines are clogged. Confirm suction line is free from leaks. Check and clean filter.
  3. Failure to pump: electrical. — Confirm electrical supply and check for loose connections...confirm voltage and wire size is adequate.
- The pump may be running too slowly. Check voltage at the motor terminals and at the meter while the pump is running. If low, see wiring instructions or consult power company. Check for loose connections.
  - The pump may be too hot.
    - A. Check line voltage; if less than 90% or more than 110% of rated voltage consult a licensed electrician.
    - B. Increase ventilation.
    - C. Reduce ambient temperature.
    - D. Tighten any loose connections.

# Replacement Parts

**FOR REPLACEMENT PARTS OR TECHNICAL ASSISTANCE, PLEASE CALL 815-675-7000**

Please provide the following information:

- Model number
- Serial number
- Part description and number as shown in parts list



NO.	Name
1	Hexagon socket head cap screw
2	Washer
3	Plug
4	O-ring
5	Pump Casing
6	O-ring
7	Hexagon Nut

NO.	Name
8	Spring washer
9	Washer
10	Guide vane cover
11	Impeller
12	Middle section
13	Mechanical Seal
14	O-ring
15	Pump Cover
16	Motor

## BOOSTER Series Pump Replacement Parts

NO.	PART NUMBER	NAME
4	14421	Drain Plug O-Ring
5	55001-001	Pump Casing
11	55002-001	Impeller
13	55003-001	Mechanical Seal
16	55004-001	Motor
	55005-001	3/4" M NPT Quick Connect Hose
	55006-001	1" M NPT Quick Connect Hose
	55007-001	Reinforced 6 ft. Hose
	55008-001	Quick Connect Installation Kit
	55009-001	Quick Connect Replacement Kit
	55010-001	Motor Capacitor (50 ± 5%)

## Warranty Information

### Limited Warranty

For one (1) year from the date of purchase, the manufacturer will repair or replace, at its option, for the original owner any parts of its pumps ("Product") which are found upon examination by the manufacturer to be defective in materials or workmanship.

Please call the manufacturer at 815-675-7000 for instructions. Be prepared to provide a receipt, the model number and serial number when exercising this limited warranty.

Purchaser must pay all labor and transportation charges on Products or parts submitted for repair or replacement.

All non-warranty service charges are the responsibility of the original owner. Failure to pay for non-warranty service charges will void this Limited Warranty.

This Limited Warranty does not cover Products that have been damaged as a result of accident, freezing, abuse, misuse, neglect, improper installation, improper maintenance or failure to operate in accordance with the manufacturer's written instructions. All maintenance and service must be performed by service agents approved by the manufacturer. Any unauthorized alteration or repairs will void this Limited Warranty.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM THE DATE OF PURCHASE. THIS IS THE EXCLUSIVE REMEDY AND ANY LIABILITY FOR ANY AND ALL INDIRECT OR CONSEQUENTIAL DAMAGES OR EXPENSES WHATSOEVER IS EXCLUDED.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusions or limitations of incidental or consequential damages, so the above limitations might not apply to you. This limited warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.

In no event, whether as a result of breach of contract warranty, tort (including negligence) or otherwise, shall the manufacturer or its suppliers be liable for any special, consequential, incidental or penal damages including, but not limited to loss of profit or revenues, loss of use of the products or any associated equipment, damage to associated equipment, cost of capital, cost of substitute products, facilities, services or replacement power, downtime costs, or claims of buyer's customers for such damages.

This Limited Warranty does not include freight charges for equipment or component parts, to and from the factory, services such as maintenance or inspection, repair or damage due to negligence such as freezing conditions, incorrect installation, nor acts of God. The liability of the manufacturer shall not exceed the repair or replacement of defective parts under this Limited Warranty. This Limited Warranty also does not include unnecessary service calls due to erroneous operational reports, external valve positions, or electrical service. If a non-warranty service call is made, and the homeowner is unwilling to pay for the service call, this Limited Warranty will be voided. This Limited Warranty is voided if the product is repaired or altered by any persons or agencies other than those authorized by the manufacturer. This Limited warranty applies only within the continental USA. For warranty outside the continental USA, contact the manufacturer.

You MUST retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you MUST present a copy of the purchase receipt at the time of service. Please call the manufacturer at 815-675-7000 for service or return authorization and instructions.

DO NOT MAIL THIS FORM TO THE MANUFACTURER. Use this form only to maintain your records.

MODEL NO. \_\_\_\_\_ SERIAL NO. \_\_\_\_\_ INSTALLATION DATE \_\_\_\_\_



**Questions, problems, missing parts? Call Customer Service  
8 a.m.- 5 p.m., EST, Monday-Friday**

**815-675-7000 or email  
customersupport@intermatic.com**

**Intermatic.com**

**Retain this manual for future use.**