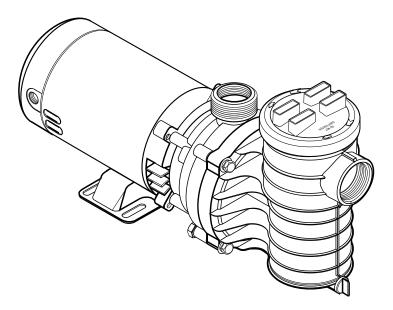
# **STA-RITE**<sup>®</sup>

# SERIES "ABG" SWIMMING POOL PUMP

O W N E R'S M A N U A L



INSTALLATION, OPERATION & PARTS

This manual should be furnished to the end user of this pump; its use will reduce service calls and chance of injury and will lengthen pump life.

#### Sta-Rite Pool/Spa Group

293 Wright Street, Delavan, WI 53115 North America: 800-752-0183, FAX 800-582-2217 International: 262-728-5551, FAX: 262-728-4461, TELEX: ITT 4970245 www.sta-ritepool.com Union City, TN • Delavan, WI • Mississauga, Ont. • Murrieta, CA

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S486 (Rev. 2/6/03)

## **STA-RITE "ABG" SERIES** SWIMMING POOL PUMP

To avoid unneeded service calls, prevent possible injuries, and get the most out of your pump, READ THIS MANUAL CAREFULLY!

The Sta-Rite 'ABG' Series Above Ground Pool Pump:

- Is designed to circulate water in above ground swimming pools (not for use in spas or inground pools).
- Is an excellent performer; durable, reliable.

# Table of Contents

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# **READ AND FOLLOW** SAFETY INSTRUCTIONS!

This is the safety alert symbol. When you see this symbol on your system or in this manual, look for one of the following signal words and be alert to the potential for personal injury.

A DANGER warns about hazards that will cause death, serious personal injury, or major property damage if ignored.

**AWARNING** warns about hazards that **can** cause death, serious personal injury, or major property damage if ignored.

**A CAUTION** warns about hazards that **will** or **can** cause minor personal injury or property damage if ignored.

**NOTICE** indicates special instructions not related to hazards.

Carefully read and follow all safety instructions in this manual and on equip**ment.** Keep safety labels in good condition; replace if missing or damaged.



AWARNING Incorrectly installed or tested equipment may fail, causing severe injury or property damage.

Read and follow instructions in owner's manual when installing and operating equipment. Have a trained pool professional per-

form all pressure tests.

# **IMPORTANT** SAFETY INSTRUCTIONS

Always follow basic safety precautions with this equipment, including the following.

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

# SAVE THESE **INSTRUCTIONS**

- 1. Do not connect system to a high pressure or city water system.
- 2. Use equipment only in a pool installation.
- 3. Trapped air in system can cause explosion. BE SURE all air is out of system before operating or testing equipment.

Tighten Sta-Rite trap lids to hand tight only.

Water pressure must be less than 25 PSI (7.5 kg/cm<sup>2</sup>).

Water Temperature must be less than  $104^{\circ}$  F ( $40^{\circ}$  C).

**A** WARNING Fire and burn hazard. Modern 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.

# INSTALLATION

For ease of pump/motor removal, install pipe unions on the suction and discharge pipes close to pump.

#### Pump mount must:

Be located away from corrosive or flammable liquids.

Have enough ventilation to maintain air temperature at less than the maximum ambient temperature rating (Max. Amb.) listed on the motor model plate. If this pump is installed in an enclosure/pump house, the enclosure must have adequate ventilation and air circulation to keep the temperature in the enclosure at or below the motor's rated ambient temperature whenever the pump is running.

Be solid - Level - Rigid - Vibration free. (To reduce vibration and pipe stress, bolt pump to mount.)

Allow pump suction inlet height to be at or below water level in pool.

Allow use of short, direct suction pipe (To reduce friction losses).

Allow for gate valves in suction and discharge piping.

Have adequate floor drainage to prevent flooding.

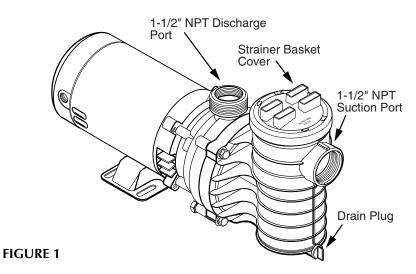
Be protected from flooding.

Allow adequate access for servicing pump and piping.

**NOTICE:** Use Teflon tape or Plasto-Joint Stik<sup>1</sup> for making all threaded connections to the pump. Do not use pipe dope; pipe dope will cause stress cracking in the pump.

**NOTICE:** Pump suction and discharge connections have molded in thread stops. DO NOT try to screw pipe in beyond these stops. Tighten the pump/trap fittings only as much as it is required to insure a tight connection (1-1/2 turns past hand tight is sufficient). Overtightening may damage the pump trap. Use care when using teflon tape as friction is reduced considerably; do not overtighten connections or damage may occur.

<sup>1</sup>Lake Chemical Co., Chicago, Illinois



### **Teflon Taping Instructions:**

Use only new or clean PVC pipe fittings.

Wrap male pipe threads with one to two layers of Teflon tape. Cover entire threaded portion of pipe.

Do not overtighten or tighten past thread stop in pump port!

If leaks occur, remove pipe, clean off old tape, rewrap with one to two additional layers of tape and remake the connection.

#### NOTICE: Support all piping connected with pump!

#### **Piping:**

To avoid strains on the pump, support both suction and discharge pipes or hoses independently. Place these supports near the pump.

To avoid airlocking, slope suction pipe slightly upward toward the pump.

**NOTICE:** To prevent flooding when removing pump for service, all flooded suction systems **must** have gate valves in suction and discharge pipes.

Union available for pump discharge port (Sta-Rite part number WC198-105). Use as follows for leak-free connection to pump:

- 1. O-Ring and sealing surfaces must be clean.
- 2. Assemble handtight only! (NO WRENCHES!)
- 3. NO pipe compound or teflon tape on union.
- 4. Bond pipe to union with PVC cement.

### Use PVC cement only in a well ventilated area away from flame; FOLLOW MANUFACTURER'S INSTRUCTIONS!

### **Fittings:**

Fittings restrict flow; for best efficiency use fewest possible fittings. Avoid fittings which could cause an air trap. **NOTICE:** Determine circuit breaker rating from Table I. Determine correct outlet required from illustration below.



"ABG" Models with -2A2, -2A4, and -3A4 suffix use 15-amp straight outlet.



"ABG" Models with -2A1 suffix use 20-amp twist-lock outlet.

#### FIGURE 2 - Plug Configurations



# ELECTRICAL



To avoid dangerous or fatal electrical shock, turn OFF power to motor before working on electrical connections.

Ground Fault Circuit Interrupter (GFCI) tripping indicates an electrical problem. If GFCI trips and will not reset, have a qualified electrician inspect and repair electrical system.



Exactly match supply voltage to nameplate voltage! Incorrect voltage can cause fire or seriously damage motor and voids warranty. If in doubt consult a licensed electrician.

Plug cord of pump directly into a GFCI protected receptacle.

### Voltage:

Voltage at motor must be not more than 10% above or below motor nameplate rated voltage or motor may overheat, causing overload tripping and reduced component life. If voltage is less than 90% or more than 110% of rated voltage when motor is running at full load, consult power company.

### Wiring:

Do not alter cord or plug on cord-connected units. Plug in to a GFCI protected, grounded outlet only. If plug and outlet do not match, consult a licensed electrician.

Table I, gives correct circuit breaker sizes for the pump alone. If other lights or appliances are also on the same circuit, be sure to add their amp loads to pump amp load before figuring 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 for GFCI, see manufacturer's instruction.

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

**NOTICE:** 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.

**A** CAUTION Values given in table below are for PUMP MOTOR ONLY. If additional accessories are installed on pump motor circuit (heater, blower, etc.), include their amperage draw when figuring wire and circuit breaker sizes.

### TABLE I - RECOMMENDED FUSING DATA

Model Number	Motor H.P.	Branch Fuse Rating Amps*	Max Load Amps	Voltage/Hz/Phase
1-Speed				
ABG4C	1/2	15	8.0	115/60/1
ABG4D, ABG4DL, ABG4D7, ABG4D7L	3/4	15	9.0	115/60/1
ABGS4D, ABGS4D7	3/4	15	8.0	115/60/1
ABG4DC, ABG4D7C	3/4	15	9.4	115/60/1
ABG4E, ABG4EL, ABG4E7L, ABG4E7	1	15	12.0	115/60/1
ABGS4E, ABGS4E7	1	15	9.6	115/60/1
ABG4EC, ABG4E7C	1	15	11.9	115/60/1
ABG4F, ABG4F7	1-1/2	20	16.0	115/60/1
ABGS4FC, ABGS4F7C	1-1/2	15	11.9	115/60/1
ABGS4F, ABGS4F7	1-1/2	15	12.0	115/60/1
2-Speed				
ABG4YE, ABG4YE7	1	15	11.7/3.39	115/60/1
ABG4YF, ABG4YF7	1-1/2	25	16.6/3.6	115/60/1

\*Time delay fuses are recommended instead of standard fuses in any motor circuit.

# 

# DANGER



Hazardous suction. Can trap hair or body parts, causing severe injury or death.

Do not block suction.

# **OPERATION**

NEVER run pump dry! Running pump dry may damage seals, causing leakage and flooding! Fill pump with water before starting motor.



- 1. STOP PUMP before proceeding.
- 2. CLOSE GATE VALVES in suction and discharge pipes.
- 3. RELEASE ALL PRESSURE from pump and piping system.

**A** WARNING Fire and burn hazard. Modern 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.

#### Do not block pump suction! To do so with body may cause severe or fatal injury. Small children using pool must ALWAYS have close adult supervision!

NOTICE: Do not block pool return. To do so may flood area causing damage to equipment and water damage to surrounding area.

### **Priming Pump:**

Open valves before starting system.

Release all pressure from filter, pump, and piping system; see the filter owner's manual.

In a flooded suction system (water source higher than pump), pump will prime itself when suction and discharge valves are opened.

### **Pool Water:**

Keep water level at least two inches above bottom of skimmer opening when system is not in use. Failure to do so can allow air to enter system, causing pump to lose its prime.

Keep pool water "balanced". Maintain the water pH between 7.2 and 7.6.

Do not use or allow the use of the pool by anyone using alcohol or drugs. The effects of hot water, alcohol and/or drugs can cause dizziness and falling, loss of consciousness, or heart attack.

#### Storage/Winterizing:

AWARNING Explosion hazard. Purging the system with compressed air can cause components to explode, with risk of severe injury or death to anyone nearby. Use only a low pressure (below 5 PSI), high volume blower when air purging the pump, filter, or piping.



**A** To prevent damage to components from fumes, store chemicals away from pump. If possible, store chemicals in another room.

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

**NOTICE: Do not** use anti-freeze solutions (except propylene glycol) in your pool system. Propylene glycol is non-toxic and will not damage plastic system components; other anti-freezes are highly toxic and may damage plastic components in the system. Propylene glycol is widely used as antifreeze in recreational vehicles.

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

Keep motor dry and covered during storage.

To avoid condensation/corrosion problems, **do not** cover or wrap pump with plastic.

For outdoor/unprotected installations:

- 1. Pump down water level below all inlets to pool.
- 2. Enclose entire system in a weatherproof enclosure.
- 3. To avoid condensation/corrosion damage, allow ventilation; **do not** wrap system in plastic.
- 4. Use a 40% propylene glycol/60% water solution to protect pump to 50°F.
- 5. Follow pool manufacturer's directions for storage of pool.

#### **Draining Pump:**

# **A WARNING** To avoid dangerous or fatal electrical shock hazard, turn OFF power to motor before draining pump.

- 1. Close all valves on suction and return piping.
- 2. Remove drain plug in bottom of trap body.
- 3. Drain all piping and storage tanks exposed to freezing temperatures.
- 4. Be sure no airlocks are holding water in the system.
- 5. To prevent pump from freezing, remove trap cover and drain the tank body through the drain plug (Key No. 12, Page 10 and Key No. 18, Page 11). Clean pump thoroughly. Replace trap cover.
- 6. Before restarting, replace all plugs and make sure all pipe connections are tightly sealed.

#### **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 on Page 6.
- 10. Refill pool to proper water level.



#### Can shock, burn, or cause death.

Disconnect power before working on pump or motor.



Figure 3



Figure 4

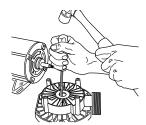


Figure 5



Figure 6

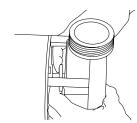


Figure 7

# PUMP SERVICE

Pump should only be serviced by qualified personnel. Be sure to prime pump (Page 7) before restarting.



- **1. STOP PUMP before proceeding.**
- 2. CLOSE GATE VALVES in suction and discharge pipes.
- 3. RELEASE ALL PRESSURE from pump and piping system.

# **A** WARNING To avoid dangerous or fatal electrical shock hazard, turn OFF power to motor before working on pump or motor.

No lubrication or regular maintenance is needed beyond reasonable care and periodic cleaning.

If shaft seal is worn or damaged, repair as follows:

### **Removing Old Seal:**

- 1. Disconnect power to pump motor.
- 2. Drain pump; disconnect unions to allow access to pump.
- 3. Remove four bolts holding trap body to seal plate; remove trap body.
- 4. Remove shaft cover or motor canopy; using screwdriver in slot on motor end of shaft or wrench on flats of shaft extension, hold pump shaft and unscrew impeller from shaft (turn counterclockwise). Rotating half of seal will come off with impeller.
- 5. Carefully remove rotating part of seal from impeller sleeve by pulling and turning on sealing washer and spring (Figure 3). Do not damage impeller surface where drive ring seats and seals.
- 6. Carefully remove four motor throughbolts from seal plate (Figure 4); remove seal plate and use a screwdriver to tap ceramic seat out from the rear (Figure 5). Do not damage seal cavity in seal plate.
- 7. Clean cavity from which seal was removed and clean motor shaft.

## Installing New Seal:

- 1. Ceramic seat must be clean and free of dirt, grease, dust, etc. Wet rubber cup gasket of ceramic seat with **small** amount of water; press into cavity firmly and squarely with finger pressure (Figure 6).
- 2. If ceramic seat will not locate properly, remove it, place **face up** on bench, and reclean cavity. Ceramic seat should now locate.
- 3. Seal must be free of dirt, grease, grit, scratches or chips; be sure impeller sleeve is clean. Slide seal assembly, rubber drive ring first, onto impeller sleeve until drive ring bottoms on impeller back shroud.
- 4. Slip slinger over shaft; remount seal plate. Torque throughbolts to 25 inchlbs. (29 cm-kg).
- 5. Screw impeller onto shaft until it seats against shaft shoulder. Work slinger over end of impeller sleeve so it rides on sleeve (Figure 7).
- 6. Install wear ring on back of volute. **NOTICE:** Teeth on wear ring interlock with ribs on trap body.
- 7. Remount trap body.
- 8. Reconnect unions; tighten hand tight only.

# TROUBLESHOOTING GUIDE

Read and understand safety and operating instructions in this manual before doing any work on pump!



**A** Only qualified personnel should electrically test pump motor!

#### FAILURE TO PUMP; REDUCED CAPACITY OR **DISCHARGE PRESSURE**

#### Suction leaks/lost prime:

- 1. Pump must be primed; make sure that pump volute and trap are full of water. See priming instructions, Page 6.
- 2. Make sure there are no leaks in suction piping.
- 3. Make sure suction pipe inlet is well below the water level to prevent pump from sucking air.
- 4. Suction lift of 1 to 2 feet (.3-.6M) will reduce performance. Suction lift of more than 2 feet (.6M) will prevent pumping and cause pump to lose prime. In either case, move pump closer (vertically) to water source. Make sure suction pipe is large enough.

#### Clogged pipe/trap/impeller, worn impeller:

- 1. Make sure suction trap is not clogged; if it is, clean trap and strainer.
- 2. Make sure impeller is not clogged (follow instructions under "Removing Old Seal", Page 8; check impeller for clogging; follow instructions under "Installing New Seal", above, for reassembly).
- 3. Impeller and diffuser may be worn. If so, order replacement parts from Repair Parts List, Pages 10 and 11.

#### **Inadequate Circulation or Jet Action:**

- 1. Check for blocked fittings. Blocked fittings will cause poor flow and poor jet action.
- 2. Check trap basket; if plugged, turn pump off and clean basket. Check and clean skimmer basket.
- 3. Check that gate valves are fully open.
- 4. Suction/discharge piping is too small.
- 5. Check and clean pool filter.
- 6. Check for clogged pipe/trap/impeller, Page 8.
- 7. Consult dealer/installer or service representative.

#### **Circuit Breaker In Home Panel Trips Repeatedly:**

- 1. Breaker must be of adequate capacity.
- 2. For GFCI breaker, test according to GFCI manufacturer's instructions.
- 3. Be sure no other lights and appliances are on circuit.
- 4. Consult dealer/installer or service representative.
- 5. Voltage too high or too low. See "Voltage", Page 5.

#### **Electrical:**

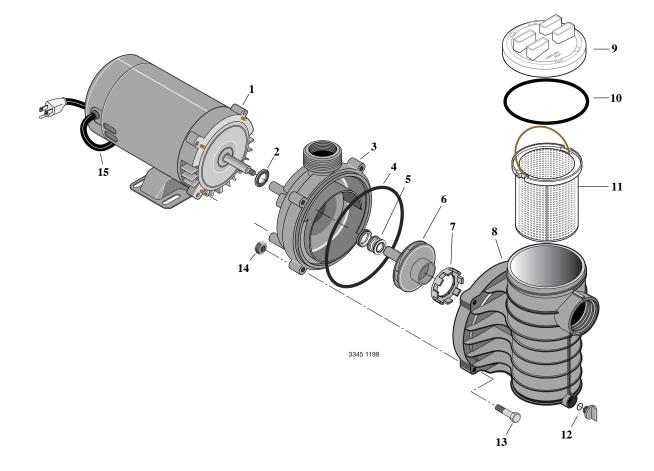
- 1. Pump may be running too slowly; check voltage at motor terminals and at meter while pump is running. If low, see wiring instructions or consult power company. Check for loose connections.
- 2. Pump may be too hot.
  - A. Check line voltage; if less than 90% or more than 110% of rated voltage consult a licensed electrician.
  - B. Increase ventilation.
  - C. Reduce ambient temperature.
  - D. Tighten any loose wiring connections.
- 3. Motor internal termal overload protector is open. Motor runs too hot. Turn power to motor off. Check for proper voltage. Check for proper impeller or impeller rubbing.
- 4. Consult dealer/installer or service representative.

#### **Mechanical Troubles and Noise:**

- 1. If suction and discharge piping are not adequately supported, pump assembly will be strained. See "Installation", Page 3.
- 2. Do not mount pump on a wooden platform! Securely mount on concrete platform for guietest performance.
- 3. Air leak in suction line (bubbles in water returning to pool). Repair leak. Tighten trap lid.
- 4. Foreign matter (gravel, metal, etc.) in pump impeller. Disassemble pump, clean impeller, follow pump service instructions on Page 8 for reassembly.
- 5. Cavitation.

Improve suction conditions. Increase pipe size. Decrease number of fittings. Increase discharge pressure. Reducer flow by throttling discharge gate valve.

# **REPAIR PARTS LIST**



Parts are common t	o all models listed	except as noted:
Key Nos. 1, Motor;	6, Impeller; and 1	7 Cord are listed below.

Kay	Part	1	Part	Model No.	НР	Motor No. Key No. 1	Impeller No. Key No. 6	Cord No. Key No. 17
Key No.	Description	Qty.	No.	115 Volt/1-Speed, To	op Discharg	e		
110.				ABG4C-3A4	1/2	62003-2034	17301-0114	31953-0116
1	Motor		Chart at Right	ABG4DL-2A1	3/4	AS920DLL	17301-0113	31953-0101
2	Slinger	1	C69-2	ABG4D-2A4	3/4	AS920DLL	17301-0113	31953-0116
3	Seal Plate	1	17500-0001	ABGS4D-3A4	3/4	62003-2035	17301-0114	31953-0116
4	Seal Plate O-Ring	1	35505-1438	ABG4EL-2A1	1	AS920ELL	17301-0112	31953-0101
5	Shaft Seal	1	U109-358SS	ABG4EL-2A2	1	AS920ELL	17301-0112	U117-1117
6	Impeller	1	Chart at Right	ABG4E-2A4	1	AS920ELL	17301-0112	31953-0116
7	Floating Wear Ring	1	17500-0004	ABG4E-2A4SP	1	AS920ELL	17301-0112	31953-0116
8	Trap Body	1	17500-0002	ABGS4E-3A4	1	62003-2037	17301-0113	31953-0116
9	Trap Lid	1	17500-0003	ABG4FL-2A1	1-1/2	AS920FLL	17301-0111	31953-0101
10	Trap Lid O-Ring		35505-1437	ABGS4F-2A4	1-1/2	62003-2031	17301-0112	31953-0116
11	Trap Basket	1	17350-0100	115 Volt/1-Speed, Si	de Discharg	ge		
12	Drain Plug		U178-920P	ABG4D7L-2Å1	3/4	AS920DLL	17301-0113	31953-0101
13	Hex Head Bolt,	'	0170-9201	ABG4D7-2A4	3/4	AS920DLL	17301-0113	31953-0116
15			20707 0005	ABGS4D7-3A4	3/4	62003-2035	17301-0114	31953-0116
1.4	1/4-20x1-3/4"	4	30787-0005	ABG4E7L-2A1	1	AS920ELL	17301-0112	31953-0101
14	Hex Nut	4	35402-0071	ABG4E7L-2A2	1	AS920ELL	17301-0112	U117-1117
15	Cord	1	Chart at Right	ABG4E7-2A4	1	AS920ELL	17301-0112	31953-0116
•	Hardware Kit*			ABG4E7-2A4SP	1	AS920ELL	17301-0116	31953-0116
	(2 Bolts, 2 Washers)	1	17290-0001	ABG4E7-2A4SPH	1	AS920ELL	17301-0113	31953-0116
•	Nameplate	1	U33-155	ABGS4E7-3A4	1 1/2	62003-2037	17301-0113	31953-0116
•	Warning Tag	1	61002-0013	ABG4F7L-2A1 ABGS4F7-2A4	1-1/2 1-1/2	AS920FLL 62003-2031	17301-0011 17301-0112	31953-0101 31953-0116
•	Caution Tag	1	C63-12				17301-0112	31933-0110
•	Decal - "GFCI Required"	1	U27-558	115 Volt/2-Speed, To	op Discharg	e		
				ABG4YE-2A4	1	62003-2021	17301-0112	31953-0116
				ABG4YF-A2	1-1/2	62003-2032	17301-0111	U117-1117
	llustrated.			115 Volt/2-Speed, Si	de Discharg	ge		
* Inclue	ded with top discharge pump	os only.		ABG4YE7-2Å4	1	62003-2021	17301-0112	31953-0116
				ABG4YF7-A2	1-1/2	62003-2032	17301-0111	U117-1117

For complete suction trap order Pkg. 115.

		5		REPAIR PARTS L
	Part Description	Qty.	Part No.	
-	End Cap Screw	3	37337-0085	20
	End Cap and Cord Assembly	1	17290-0026	
	Toggle Switch	1	16920-0511	
	Toggle Switch Boot	1	32800-0107	
	Baffle Ring	1	17290-0004	3345 1198 CAN
	Motor	1	Chart at Right	
	Motor Cover	1	17190-0021	
	Slinger	1	C69-2	
	Seal Plate	1	17500-0001	18
	Seal Plate O-Ring	1	35505-1438	19
	Shaft Seal	1	U9-358SS	17
	Impeller	1	Chart at Right	
	Floating Wear Ring	1	17500-0004	Parts are common to all models listed except as noted:
	Trap Lid	1	17500-0003	Key Nos. 6, Motor; and 12, Impeller are listed below.
	Trap Lid O-Ring	1	35505-1437	
	Trap Basket	1	17350-0100	Motor No. Impeller
	True Dada		17500 0000	

17500-0002 U178-920P

30787-0005

35402-0071

17290-0001

U33-155 61002-0013

C63-12 U27-558

Model No. HP		Motor No. Key No. 6	Impeller No. Key No. 12	
115 Volt, Top Disch ABG4DC-2A3	<b>115 Volt, Top Discharge</b> ABG4DC-2A3 3/4		17301-0113	
ABG4EC-2A3 ABGS4FC-2A3			17301-0112 17301-0111	
115 Volt, Side Disc				
ABG4D7C-2A3 ABG4E7C-2A3 ABGS4F7C-2A3	3/4 1 1-1/2	AS901DL AS901EL AS901SFL	17301-0113 17301-0112 17301-0111	

For complete suction trap order Pkg. 115.

٠	Not	il	lustrated.

Hex Nut

Trap Body Drain Plug with O-Ring Hex Head Bolt, 1/4-20x1-3/4"

Nameplate Warning Tag Caution Tag Decal - "GFCI Required"

Hardware Kit (2 Bolts, 2 Washers)

Key No. 

•

# **STA-RITE LIMITED WARRANTY**

Pumps, filters, skimmers, underwater lights (except bulbs), accessories and fittings manufactured by Sta-Rite are warranted to be free of defects in material and workmanship for one (1) year from date of installation.

Product specific warranties:	Year from date of installation
HRPB, DEPB, System 3, System 2 and Tanks Internal filter components and valves	
<i>Max-E-Therm</i> – Pool/Spa Heaters Heater Enclosure only (Upper RH & L lower enclosure; and control board en	H;
Automatic Pool Cleaners including He	ose 2 years
<i>Cristal-Flo filters</i> – Tanks	
Posi-Flo II - Tanks	
PRC Cartridge – Filter Tanks	
System 2 Above Ground Systems - Tar Pumps / Platform and Internals	nks 10 years 1 year
Pumps         When equipped with A.O. Smith         2-compartment motors (Does not incl         pumps sold as part of a systems packa	ude
Traps / In-Line Strainers	1 year
Vertical Commercial Filter – Tanks Internals	
Horizontal Commercial Filter Tanks	ar, Yr. 10 - 10%)

\* Full warranty coverage is in effect for one year after installation. The pro-rated warranty covers the *tank only* during the 2nd through 10th year after installation. The amount covered decreases by 10% each year. (ie., 2nd year 90% covered, 3rd year 80% covered, etc.).

The foregoing warranties relate to the original consumer purchaser ("Purchaser") only. Sta-Rite shall have the option to repair or replace the defective product, at its sole discre-

tion. Purchasers must pay all labor and shipping charges necessary to replace the product covered by this warranty. Requests for warranty service must be made through the installing dealer. This warranty shall not apply to any product that has been subject to negligence, misapplication, improper installation or maintenance, or other circumstances which are not in Sta-Rite's direct control.

This warranty sets forth Sta-Rite's sole obligation and Purchaser's exclusive remedy for defective products.

STA-RITE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FIT-NESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE DURATION OF THE APPLICABLE EXPRESS WARRANTIES PROVIDED HEREIN.

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

Supersedes all previous publications.

Sta-Rite Industries, Inc., 293 Wright St., Delavan, WI 53115

Retain Warranty Certificate (upper portion) in a safe and convenient location for your records.

DETACH HERE: Fill out bottom portion completely and mail within 10 days of purchase/installation to: Sta-Rite, Attn: Warranty Dept., 293 Wright St., Delavan, WI 53115

STA-RITE				Warranty Registration Card			
Name				Years pool has bee	en in service 🛛 less than 1	□ 1-3 □ 3-5 □ 5-10	
Address				Purchased from: Company name			
City	State	Zip		Address			
Purchase Date				City	State	Zip	
Product Purchased				_			
□ New installation	Replace	ement			send me more info other products from		
Type of Pool   Inground	Vinyl	Fiberglass	🗆 Gunite		s 🗆 Filters 🗆 Autor	matic Pool Cleaners	
Size of Pool				Maintenance Equipment □ Test Strips □ Heaters			