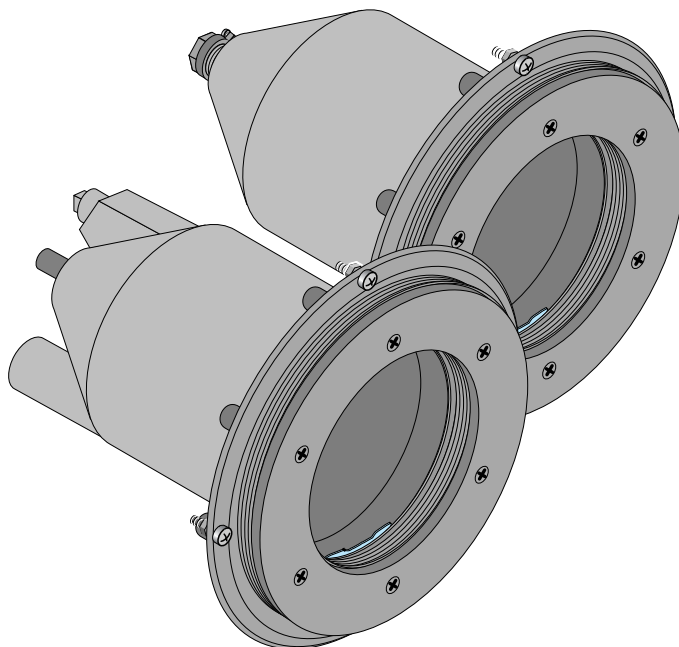


# STA-RITE®

## Small Underwater Light Niche

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



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INSTALLATION, OPERATION & PARTS



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

### Sta-Rite Pool/Spa Group

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**S478** (Rev. 3/30/04)

## READ AND FOLLOW SAFETY INSTRUCTIONS!

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

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

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

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

The label **NOTICE** indicates special instructions which are important but not related to hazards.

**Carefully read and follow all safety instructions in this manual and on equipment.**

Use equipment only in a pool or spa installation.

## GENERAL SAFETY!

**⚠ WARNING** **Hazardous voltage.** 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 perform all tests.

**⚠ WARNING** **Risk of electrical shock.** Before removing fixture from pool wall, ALWAYS TURN OFF THE POWER at the breaker.

Install this light niche in accordance with Article 680 of the National Electrical Code (NEC), in the United States, or Section 68 of the Canadian Electrical Code (CEC), as applicable, and all local code requirements.

Install an approved Ground Fault Circuit Interrupter (GFCI) in 120V electrical circuits as required by the NEC or state and local electrical codes.

All devices in the system must be directly grounded to a positive electrical ground. All devices in the system must meet all applicable code requirements for bonding.

Installation, maintenance, testing, and approval of this circuit, the light, light niche, and any other accessories attached to the circuit, must be performed by a qualified, licensed electrician.

The complete electrical system must be installed, tested, and approved by a qualified, licensed electrician before it is placed in operation.

**⚠ WARNING** **Burn hazard.** Never operate this light fixture for more than 10 seconds unless it is completely submerged in water. This fixture requires total submersion for cooling.

**⚠ WARNING** **Glass breakage hazard.** Install fixture in a vertical pool or spa wall – not in floor. Failure to install the fixture properly could result in personal injury and/or

property damage. Do not push off from the poolside against the light.

Locate junction box at least 8" above maximum water level and not less than 4 feet from the perimeter of the pool.

The junction box must be located:

- at least 4' from the perimeter of the pool (unless separated from the pool by a solid fence, wall or other permanent structure,
- at least 8" above maximum water level,
- at least 4" above the deck or ground level.

Junction boxes should be located off the walkway around the pool and given additional protection by installing them next to a fence, building, or other permanent structure.

Make sure that the installation is in compliance with local codes, the NEC, and the CEC, as applicable. See Figure 1, Page 3.

The improper use of Ozone generators, Chlorine generators, Copper/Silver Ion generators or certain chemicals for water purification may cause damage to the fixture. When such water purification methods are used, be sure to monitor the water conditions. Subjecting the fixture to extreme conditions or harsh environments may cause corrosion and premature failure of the fixture or its components.

## SPECIFICATIONS

### Small Underwater Light Niche

Model No.	Pool Liner Type	Conduit Size	Trim Ring Material
<b>PVC Niche Material</b>			
05167-1035	Gunite	1"	N/A
05167-1036	Vinyl Pool	1"	Stainless Steel
05167-1037	Vinyl Pool	1"	ABS
<b>Stainless Steel Niche Material</b>			
05166-1017	Gunite	1/2"	N/A
05166-1018	Gunite	1/2"	N/A
05166-1019	Gunite	3/4"	N/A
05166-1020	Gunite	3/4"	N/A
05166-1021	Gunite	1"	N/A
05166-1022	Gunite	1"	N/A
05166-1023	Vinyl Pool	1/2"	Stainless Steel
05166-1024	Vinyl Pool	1/2"	Stainless Steel
05166-1025	Vinyl Pool	3/4"	Stainless Steel
05166-1026	Vinyl Pool	3/4"	Stainless Steel
05166-1027	Vinyl Pool	1"	Stainless Steel
05166-1028	Vinyl Pool	1"	Stainless Steel
05166-1029	Vinyl Pool	1/2"	ABS
05166-1030	Vinyl Pool	1/2"	ABS
05166-1031	Vinyl Pool	3/4"	ABS
05166-1032	Vinyl Pool	3/4"	ABS
05166-1033	Vinyl Pool	1"	ABS
05166-1034	Vinyl Pool	1"	ABS

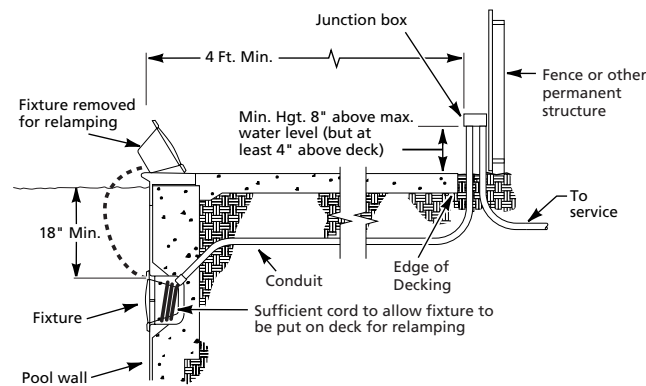
# INSTALLATION

**⚠ WARNING Risk of electrical shock.** Before removing fixture from pool wall, ALWAYS TURN OFF THE POWER at the breaker.

"Except when the fixture is installed in an area of the swimming pool that is not used for swimming and the lens is adequately guarded to keep any person from contacting it, the fixture shall be installed in or on a wall of the pool with the top of the lens opening not less than 18 inches below the normal water level of the pool." See Figure 1.

Install an approved, Ground Fault Circuit Interrupter (GFCI) in the electrical branch circuit for this niche, by a licensed electrician.

All devices in the system must be directly grounded to a positive electrical ground.



**Figure 1: Lamp Niche Installation**

## Installation In Vinyl Liner Pool

(Refer to Figure 2, below, for 05166-1023 through 1034, 05167-1036 and 05167-1037)

1. Mark the location of the top of the hole to be cut in the pool wall (be sure that the topmost part of the lens will be more than 18" below the water level). Then mark the diameter of the hole (7-1/4" to 7-1/2"). Cut along the circle you marked on the pool wall.
2. Insert the niche into the pool wall from the inside of the wall. Make sure that the odd spaced holes are at the top and bottom and that the niche is aligned so that the alignment notch for the lamp housing is at the bottom of the niche (threaded hole at the top).
3. There are four countersunk through-holes in the niche flange. Mark the location of these holes on the pool wall and then drill them with a 7/32" bit. Fasten the niche in place with four #10-24 x 1" flat head screws and nuts (provided). Do not overtighten.

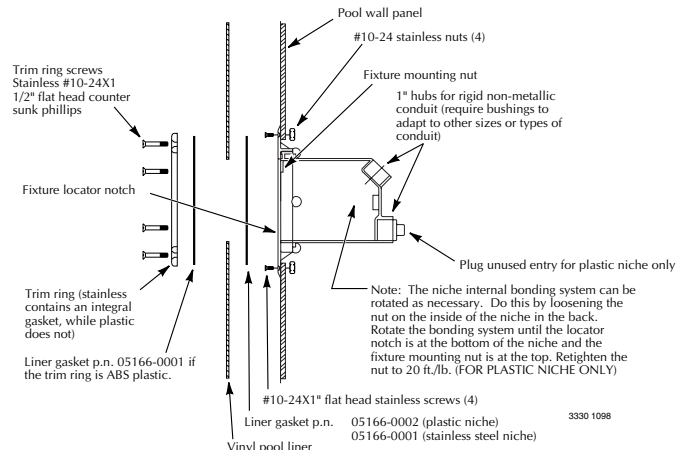
## 4. Bonding:

- A. If rigid non-metallic conduit is used, run a #8 solid or stranded copper wire inside the conduit from the bonding lug inside the niche to the junction box. Tighten the bonding lug to 25 in-lbs. of torque. Completely encapsulate the bonding lug inside the niche with an approved encapsulating material as required by the NEC and CEC.
- B. If red brass conduit is used, connect a #8 solid copper wire from the bonding lug on the back of the niche to both the steel in the pool structure and to the red brass conduit. Tighten the bonding lug to 25 in-lbs. of torque. Use an approved direct burial cold water clamp to connect the wire to the conduit.

## 5. Lay vinyl in place over the niche.

## 6. Gasket installation:

- A: If a stainless steel trim ring is used, place gasket #05166-0002 and trim ring #05166-0004 over the vinyl liner and fasten them with the ten #10-24 x 1-1/2" stainless steel flat head screws provided.
- B: If an ABS trim ring is used, place gasket #05166-0001 and trim ring #05166-0003 over the vinyl liner and fasten them with the ten #10-24 x 1-1/2" stainless steel flat head screws provided.



**Figure 2: Small Stainless Steel or PVC Niche Installation in a Vinyl Liner Pool**

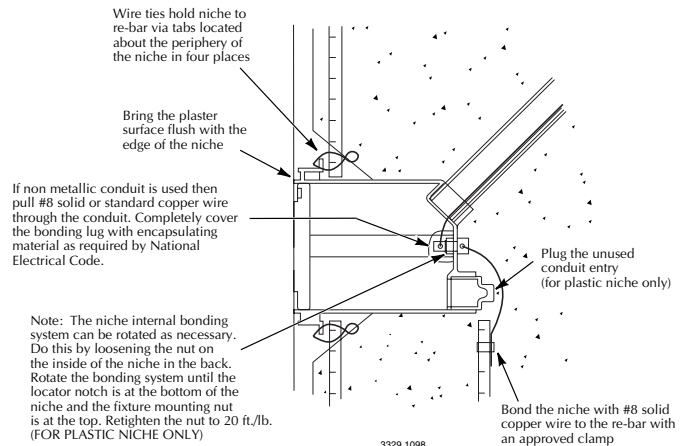
## INSTALLATION IN GUNITE POOL

(Refer to Figure 3, below for Series Numbers 05166-1017 through 1022, and 05167-1035)

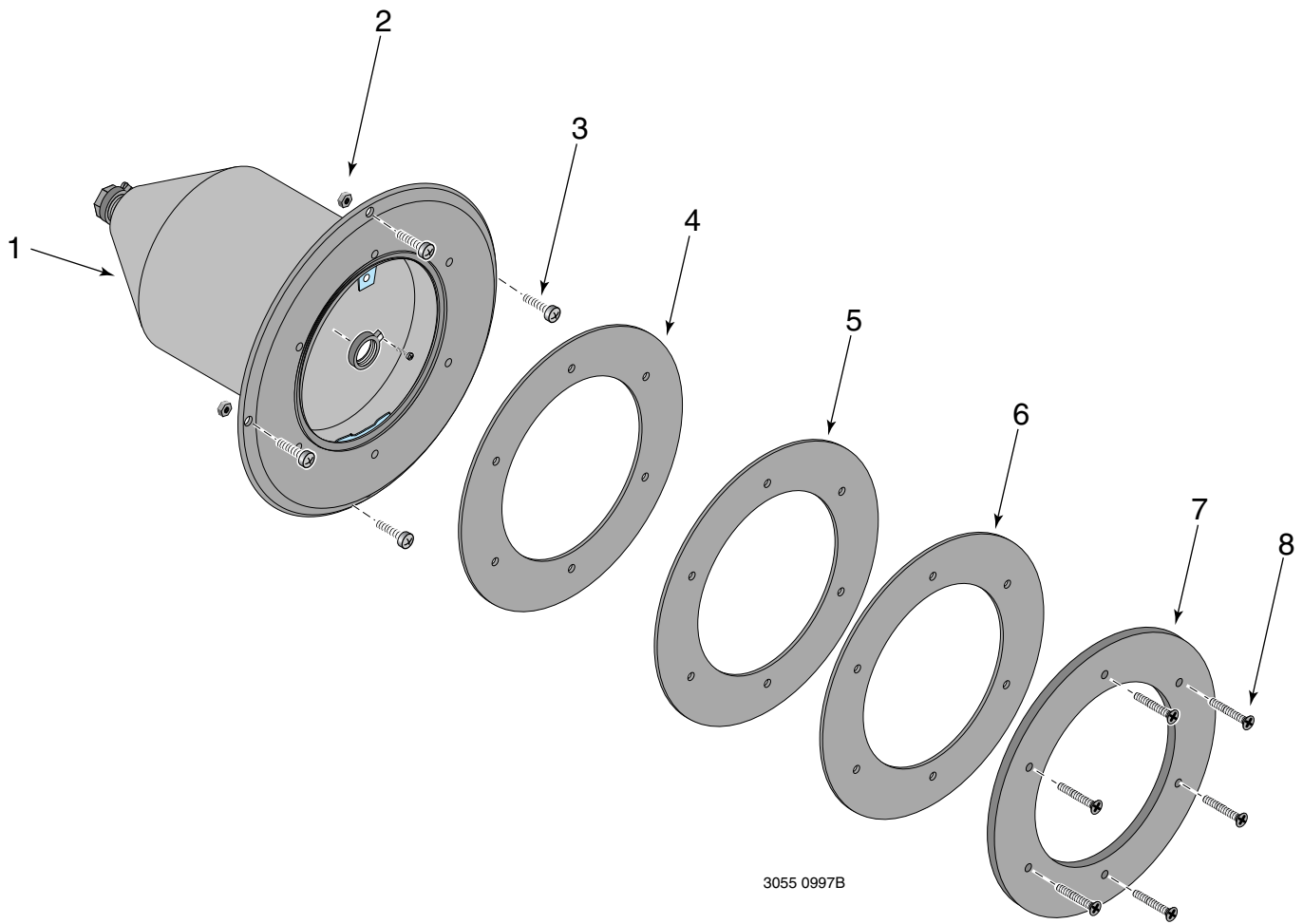
1. Wire the niche to the re-bar in the desired location (be sure that the topmost part of the lens will be more than 18" below the water level). Make sure that the odd spaced holes are at the top and bottom and that the niche is aligned with the alignment notch for the lamp housing at the bottom of the niche.
2. Connect conduit to the back of the niche. If 1" or 3/4" rigid non-metallic conduit is used, then an adapter bushing will be required. If red brass conduit is used, then a threaded bushing will be required.
3. Bonding:
  - A. If rigid non-metallic conduit is used, run a #8 solid or stranded copper wire inside the conduit from the bonding lug inside the niche to the junction box. Tighten the bonding lug to 25 in-lbs. of torque. A bushing will be required. Completely encapsulate the bonding lug inside the niche with an approved encapsulating material as required by the NEC and CEC where applicable.

- B. If red brass conduit is used, connect a #8 solid copper wire from the bonding lug on the back of the niche to both the steel in the pool structure and to the red brass conduit. Tighten the bonding lug to 25 in-lbs. of torque. A threaded bushing will be required. Use an approved direct burial cold water clamp to connect the wire to the conduit.

4. Plaster up to the inside edge of the niche.



**Figure 3: Small Stainless Steel or PVC Niche Installation in a Gunite Pool**

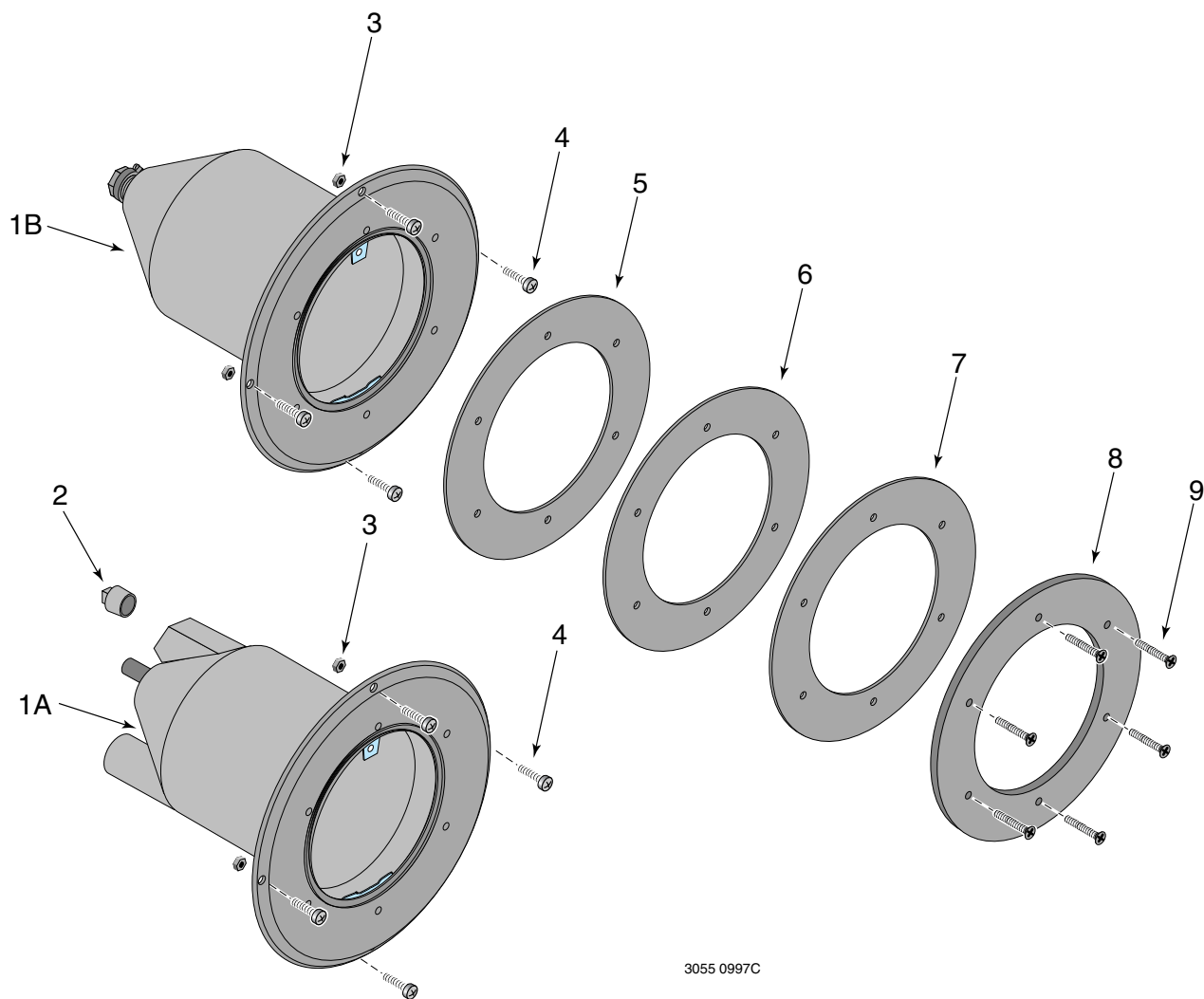


**Figure 5 – Small Stainless Steel Light Niche Exploded View**

### REPAIR PARTS LIST – SMALL STAINLESS STEEL LIGHT NICHES

Key No.	Part Description	Qty.	GUNITE 05166-1017 05166-1018 05166-1019 05166-1020 05166-1021 05166-1022	VINYL/SS TRIM RING 05166-1023 05166-1024 05166-1025 05166-1026 05166-1027 05166-1028	VINYL/ABS TRIM RING 05166-1029 05166-1030 05166-1031 05166-1032 05166-1033 05166-1034
1	Light Housing	1	†	†	†
2	Hex Nut, #10-24 Stainless Steel	4	††	35407-0031	35407-0031
3	#10-24 x 1" Stainless Steel Flat Pan Head Screw	4	††	37057-0612	37057-0612
4	Liner Gasket	1	††	-	05166-0001
5	Liner Gasket	1	††	05166-0001	05166-0001
6	Integral Gasket for Stainless Steel Trim Ring	1	††	05166-0002	-
7	Trim Ring, ABS, White w/ Gasket	1	††	††	05161-0003
7	Trim Ring, Stainless Steel w/ Gasket	1	††	05166-0004	-
8	#10-24 x 1-1/2" SS Flat Pan Head Screw	6	††	37057-0615	37057-0615

† Not sold separately.  
†† No replaceable parts.



3055 0997C

**Figure 6 – Small PVC Light Niche Exploded View**

### REPAIR PARTS LIST – SMALL PVC LIGHT NICHES

Key No.	Part Description	Qty.	GUNITE 05167-1035	VINYL/SS TRIM RING 05167-1036	VINYL/ABS ABS TRIM RING 05167-1037
1	Light Housing	1	†	†	†
2	PVC Plug, 1" Male	1	36305-4031	36305-4031	36305-4031
3	Hex Nut, #10-24 Stainless Steel	4	††	35407-0031	35407-0031
4	#10-24 x 1" Stainless Steel Flat Pan Head Screw	4	††	37057-0612	37057-0612
5	Liner Gasket	1	††	-	05166-0001
6	Liner Gasket	1	††	05166-0001	05166-0001
7	Integral Gasket for Stainless Steel Trim Ring	1	††	05166-0002	-
8	Trim Ring, ABS	1	††	-	05166-0003
8	Trim Ring, Stainless Steel w/ Gasket	1	††	05166-0004	-
9	#10-24 x 1-1/2" SS Flat Pan Head Screw	6	††	37057-0615	37057-0615
•	#10-24 x 3/8" Round Pan Head Screw	2	37067-0605	-	-

• Not illustrated.

† Not sold separately.

†† No replaceable parts.

## 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
------------------------------	--------------------------------

<i>HRPB, DEPB, System 3, System 2 and Posi-Clear</i>	
Tanks .....	10 years
Internal filter components and valves .....	1 year
<i>Max-E-Therm - Pool/Spa Heaters</i> .....	
Heater Enclosure only (Upper RH & LH; lower enclosure; and control board enclosure)...	10 years
<i>Automatic Pool Cleaners including Hose</i> .....	2 years
<i>Cristal-Flo filters - Tanks</i> .....	
Valve and internal components. ....	1 year
<i>Posi-Flo II - Tanks</i> .....	
Elements .....	1 year
<i>PRC Cartridge -</i>	
Filter Tanks .....	5 years pro-rated (1st 2 years full)
Elements .....	1 year
<i>System 2 Above Ground Systems - Tanks</i> .....	
Pumps / Platform and Internals .....	1 year
<i>Pumps</i> .....	
When equipped with A.O. Smith 2-compartment motors (Does not include pumps sold as part of a systems package) .....	2 years
<i>Traps / In-Line Strainers</i> .....	1 year
<i>Vertical Commercial Filter - Tanks</i> .....	
Internals .....	1 year
<i>Horizontal Commercial Filter</i>	
Tanks .....	5 years
(Years 6-9, Prorated declining 20%/year, Yr. 10 - 10%)	
Internals .....	1 year

\* 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 discretion. 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 FITNESS 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**  
**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 _____			
Address _____			
City _____	State _____	Zip _____	
Purchase Date _____			
Product Purchased _____			
<input type="checkbox"/> New installation		<input type="checkbox"/> Replacement	
Type of Pool	<input type="checkbox"/> Inground	<input type="checkbox"/> Vinyl	<input type="checkbox"/> Fiberglass <input type="checkbox"/> Gunite
Size of Pool _____			

Years pool has been in service <input type="checkbox"/> less than 1 <input type="checkbox"/> 1-3 <input type="checkbox"/> 3-5 <input type="checkbox"/> 5-10			
Purchased from:			
Company name _____			
Address _____			
City _____	State _____	Zip _____	

Please send me more information on these other products from Sta-Rite.

- |  |                                      |  |
|--|--------------------------------------|--|
| <input type="checkbox"/> Pumps                 | <input type="checkbox"/> Filters     | <input type="checkbox"/> Automatic Pool Cleaners |
| <input type="checkbox"/> Maintenance Equipment | <input type="checkbox"/> Test Strips |  |
| <input type="checkbox"/> Heaters               |                                      |  |

