

# **STA-RITE®**

# **SUBMERSIBLE**

# **SWIMMING POOL DRAINER**

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

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INSTALLATION, OPERATION & PARTS

## **MODEL PCD-10B**

**⚠ WARNING** Use of electrical appliances around swimming pools is hazardous. To reduce the risk as much as possible, carefully read and follow all instructions in this manual or on your pump. Use of this manual will reduce service requirements and chance of injury and will lengthen the life of your pump.

### **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

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Union City, TN • Delavan, WI • Mississauga, Ont • Murrieta, CA

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**S958** (Rev. 6/18/01)

## READ AND FOLLOW SAFETY INSTRUCTIONS!



**⚠ DANGER**

**⚠ WARNING**

**⚠ CAUTION**

This is the safety-alert symbol. When you see this symbol on your pump or 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 pump.**

Keep safety labels in good condition.  
Replace missing or damaged safety labels.

## OBSERVE THE FOLLOWING SAFETY PRECAUTIONS WITH THIS PUMP

**⚠ WARNING**



**Hazardous voltage.  
Can shock, burn,  
or cause death.**

Plug into grounded,  
GFCI protected circuit  
only.

Read instructions  
before using pump.

**⚠ Install and use pump according to National Electrical Code and local codes and ordinances.**

**⚠ Use pump only in a circuit protected by a Ground Fault Circuit Interrupter (GFCI). Test GFCI before each use. Operation without a GFCI in circuit can cause dangerous electrical shock hazard.**

**⚠ DO NOT allow anyone, including pump operator, in the water while pump is standing in water and connected to power source, whether pump is running or not.**

**⚠ DO NOT modify cord or plug. Plug pump into a 115 volt, 3-prong, grounded, GFCI protected outlet only. Do not use extension cords.**

**⚠ Do not use as a continuous duty pump for waterfalls, fountains, etc. Motor may overheat and fail and warranty will be void.**

**⚠ Do not use to pump acid solutions (such as in pool wash work). Pump casing could be attacked by the acid, causing an electrical shock hazard and pump failure.**

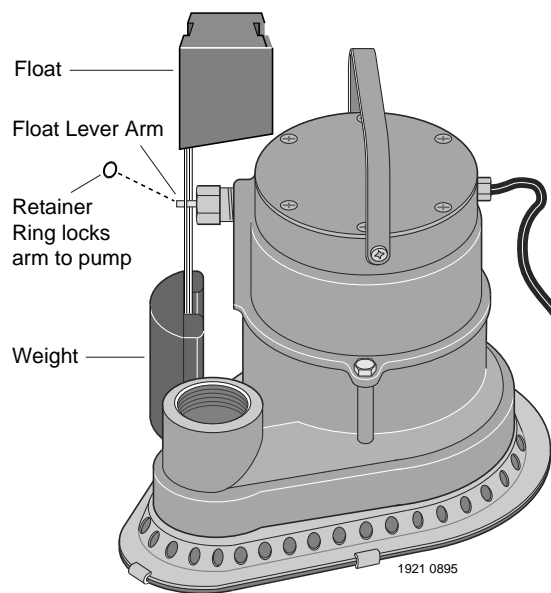
**⚠ Before each use, carefully inspect power cord for nicks, breaks, and cracks. If cord shows any visible damage or defects, do not use pump. Take pump to a qualified repair facility and have cord replaced.**

**⚠ WARNING** Switch damage may result in electrical shock hazard. If the switch lever arm and float assembly are damaged, switch may fail or water may get into electrical components, causing a short circuit. **Never** allow switch level arm or float assembly to support weight of pump. Make sure pump does not tip over onto switch arm.

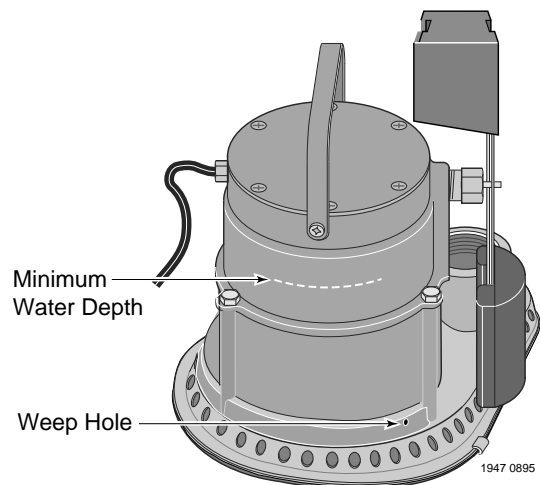
**⚠ WARNING** Explosion hazard. Pump is oil filled and must be submerged while running (see Figure 2) to prevent overheating and possible explosion, which could cause severe burns and lacerations to anyone nearby.

## SWITCH INSTALLATION/ PUMP SET-UP

1. Remove float rod retainer ring from lever arm assembly (see Figure 1).
2. Using hole in float rod that is closest to weighted end of rod, slide float rod assembly on to lever arm (see Figure 1). Be sure float is toward pump.
3. Remount retainer ring on lever arm assembly.
4. Attached discharge hose or piping to pump discharge with 1-1/4" NPT fittings. Use discharge hose or pipe of 1-1/4" diameter or larger. Make sure that pump outlet is not restricted.
5. Make sure air bleed hole is not plugged (see Figure 2). If it is plugged, DISCONNECT POWER to pump and use a small piece of wire to clean it.



**FIGURE 1:** Install switch as shown with float facing pump body and weight facing out. If switch is installed backwards, weight will interfere with pump body and prevent switch operation.



**FIGURE 2**



## OPERATION

**⚠ WARNING** Risk of electrical shock. Do not allow work in pool (vacuuming, scrubbing, etc.) with electrically conductive metal tools while pump is operating. If pump or cord failure occurs, pump case and pool water may be energized, setting up a major electrical shock hazard.

**⚠** Before using pump, **BE SURE** that power supply circuit is protected by a Ground Fault Circuit Interrupter (GFCI); if possible, test GFCI for proper operation. Use pump **ONLY** with grounded, GFCI protected, 115 Volt circuit.

**⚠** To avoid electrical shock hazard, do not modify cord or plug. Use 15 amp Fusetron or 30 amp fuse or circuit breaker in circuit.

1. Pump is equipped with an air bleed hole to prevent airlocking. Check hole (see Figure 2). If hole is plugged, **DISCONNECT POWER** to pump and clean hole with a piece of wire.

2. Plug pump into a GFCI protected, 115 volt, three-prong, grounded electrical outlet **ONLY**. Do not modify cord or plug or remove grounding prong from plug.

**NOTICE:** Do not run pump out of water. To do so can damage seal and will void warranty.

3. Pick up pump by the rope provided (not by the cord) and lower into the pool. Place pump in lowest point of pool (see Figure 3).

**⚠** To avoid severe injury or fatal electrical shock, do not use electrical cord as a handle. Do not lower pump into pool by the electrical cord; use rope provided.

4. To avoid overheating and early pump failure, do not allow pump to run continuously if more than 1/3 of the motor is out of the water (see Figure 2, Page 3).

5. Do not use an extension cord with this pump. Use the pump's 25', three-wire, grounded cord plugged directly into a 115 Volt, grounded, GFCI-protected outlet that meets code requirements.

6. Run pump discharge in compliance with local ordinances. Make sure that water from discharge will not cause flooding. Check local ordinances before discharging pump into sanitary or storm sewers.

If cord or rope become tangled in float rod assembly, ON-OFF switch may not work properly. To prevent tangling, keep excess cord and rope outside of pool.

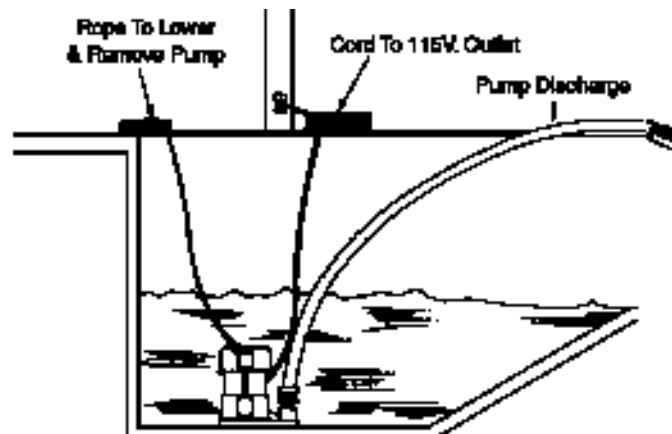


FIGURE 3

## MAINTENANCE

To prevent airlocking, make sure air bleed hole is not plugged. To clear it, unplug pump and clean hole with a short piece of wire.

**⚠ WARNING** Risk of electrical shock if motor is incorrectly assembled. Do not have it repaired locally. Do not attempt to replace cord.

Motor is not designed for field maintenance. It is filled with special dielectric oil and sealed. Attempting to open or work on motor can cause shock hazard and will void warranty.

If motor needs repair, call Sta-Rite Customer Service at 1-800-752-0183.

## TROUBLESHOOTING

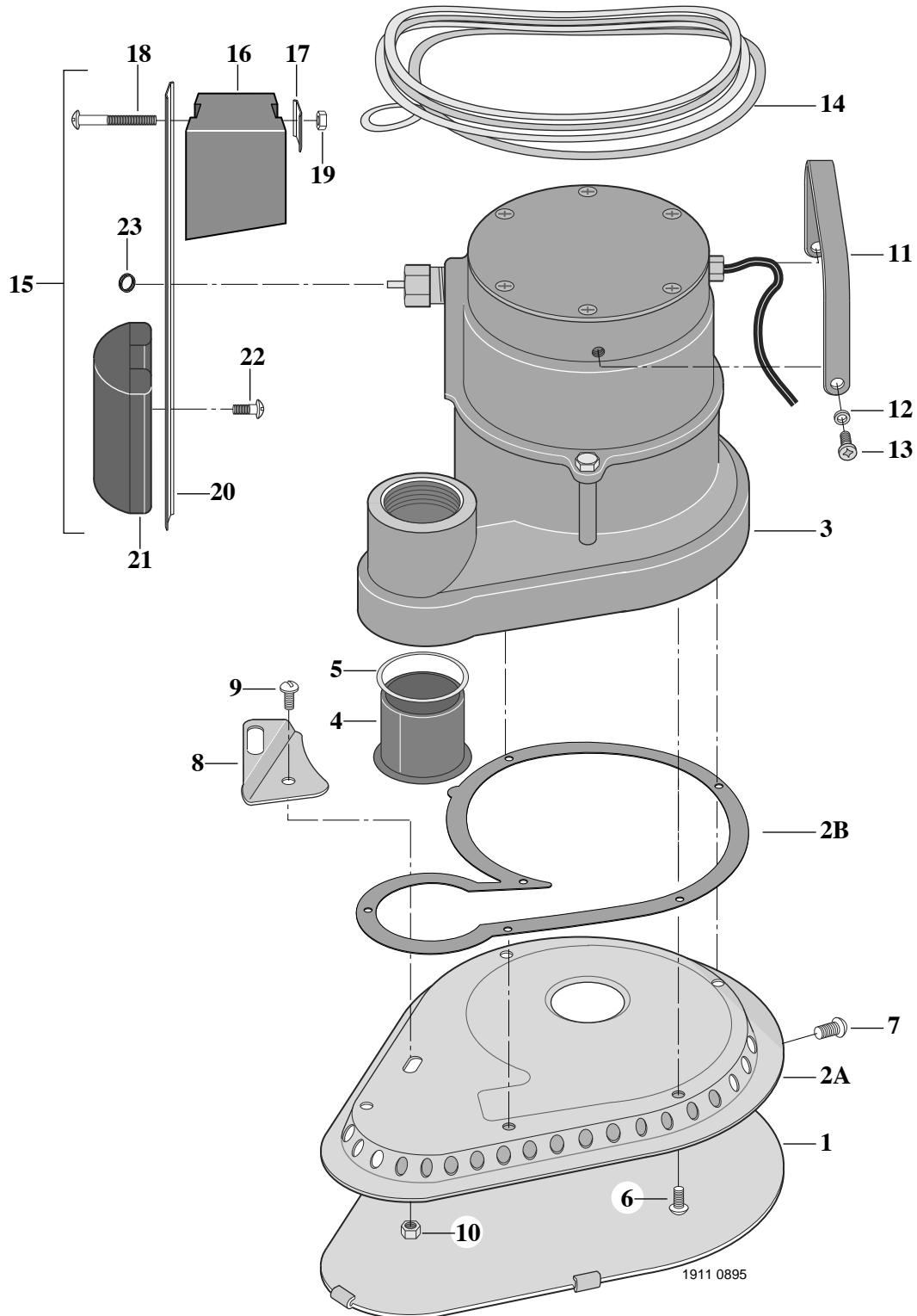
### 1. Motor fails to run

- A. Check fuses, etc. to be sure there is current at outlet.
- B. Check GFCI in outlet for tripping. GFCI protects against dangerous current leaks to ground. If GFCI has tripped and will not reset, DO NOT USE PUMP until problem is repaired.
- ⚠** C. If motor runs for a short time and cuts out:
  - 1. Turn power to pump OFF; unplug pump.
  - 2. Remove base plate and check to see that impeller turns freely.
  - 3. If pump still does not operate after this preliminary check, take it to a qualified motor repair facility.

### 1. Pump runs but does not pump water

- A. Discharge outlet too high above pump. Lower hose or pipe outlet.
- B. Pump is airlocked. Clean air bleed hole (see Figure 2, Page 3).
- C. Suction Baseplate may be plugged.
  - 1. Turn power to pump OFF; unplug pump.
  - 2. Remove baseplate and clean holes around edge.
  - 3. Reinstall baseplate.
  - 4. Put pump in water before starting.
  - 5. Plug in pump; turn power ON.

# Sta-Rite Submersible Swimming Pool Drainer MODEL NO. PCD-10B



1911 0895

## REPAIR PARTS LIST

Key No.	Description	Qty.	PCD-10B 1/2 HP
1	Base Plate Cover	1	PS4-11D
2A	Base Plate	1	PS4-9D
2B	Gasket	1	PS20-22
3	Motor Assembly Complete*	1	-
3A	Cord	1	U17-505
4	Check Valve	1	PS20-12
5	Retainer Ring	2	PS43-10
6	Machine Screw 8-32x1/2"	6	U30-539SS
7	Machine Screw 10x1/2"	1	U30-692SS
8	Float Rod Guide	1	PS28-12D
9	Machine Screw 8-32x3/8"	1	U30-138SS
10	Locknut, 8-32	1	U36-129DN
11	Handle	1	PS54-11
12	Spacer	2	PS43-15
13	Screw, 1/4-20x1/2"	2	U30-694SS
14	Rope - 24 Feet	1	U97-21A
15	Float, Rod and Weight Assembly (Includes Key Nos. 16 through 22)	1	PS128-4
16	Float	(1)	PS28-10P
17	Clip	(1)	PS28-14SS
18	Machine Screw, 8-32x2"	(1)	U30-690SS
19	Locknut, 8-32	(1)	U36-129DN
20	Float Rod	(1)	PS28-13SS
21	Weight	(1)	PS28-11P
22	Screw, 12x11/16"	(1)	U30-695SS
23	Float Rod Retainer Ring	1	U30-699SS
•	Dielectric Oil (19.5 oz. required)		U97-98
•	Owner's Manual	1	S958

• Not illustrated.

\* Not available separately.

## 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, and PL – Tanks</i> .....	10 years
Internal filter components and valves .....	1 year
<i>Max-E-Therm – Pool/Spa Heaters</i> .....	2 years
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> .....	10 years pro-rated*
Valve and internal components. ....	1 year
<i>Posi-Flo II – Tanks</i> .....	10 years
Elements .....	1 year
<i>PRC Cartridge –</i>	
Filter Tanks .....	.5 years pro-rated (1st 2 years full)
Elements .....	1 year
<i>System 3 Above Ground Systems – Tanks</i> .....	10 years
Pumps / Platform and Internals .....	1 year
<i>Pumps</i> .....	1 year
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> .....	10 years
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 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 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, 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®**

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Purchase Date \_\_\_\_\_

Product Purchased \_\_\_\_\_

New installation       Replacement

Type of Pool     Inground     Vinyl     Fiberglass     Gunite

Size of Pool \_\_\_\_\_

Years pool has been in service     less than 1     1-3     3-5     5-10

Purchased from:  
Company name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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

- Pumps     Filters     Automatic Pool Cleaners  
 Maintenance Equipment     Test Strips  
 Heaters