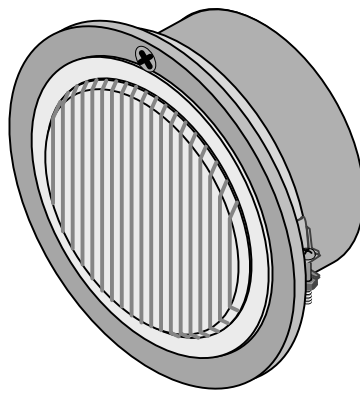


# STA-RITE®

## Sunbrite LTC™

# Large Underwater Pool Lights

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



3050 0997 ASB

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## INSTALLATION, OPERATION & PARTS

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

MEMBER



NATIONAL  
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
S717 (Rev. A)

## 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.

End user should save these instructions.


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

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


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


This light and its light niche must be installed 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.

 **CAUTION** Cutting hazard if light is improperly installed. This light is for use only in commercial and residential swimming pools and spas. It has not been designed, tested, or approved for use in wave pools, lazy rivers, or other waterpark features, and should not be used in them. Use in any application other than a swimming pool or spa may lead to damage to the light and cuts to swimmers and will void the warranty. Sta-Rite will not be responsible for any damages or injuries due to misapplication of this light.

Install an approved Ground Fault Circuit Interrupter in the electrical circuit for this light.

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.

 **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** 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.

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" below the normal level of the pool.

The junction box must be located:

- at least 4 feet 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 and the NEC or the CEC, as applicable.

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.

# INSTALLATION

## Sunbrite LTC™ Lamp Housing Installation

(Refer to Figure 2 and the Exploded View on Page 5).

**▲ CAUTION** Glass breakage hazard. Do not push off from the poolside against the light.

Installation of a 12 Volt transformer is required when installing the 12 Volt model of this light. The transformer must be located:

- at least 10' from the pool wall,
- installed near a grounded, 3-prong, 120V, GFCI protected outlet. If you do not have a GFCI protected outlet, have a qualified electrician install one.

Do not use a 3-prong adapter. The adapter voids the grounding of the system.

Do not cut the grounding pin.

Do not use an extension cord! Purchase a light with a longer cord.

**NOTE:** Do not try to loosen the strain relief (cord nut) on the back of the lamp housing; the cord is not detachable from the lamp housing. Attempting to loosen the strain relief will damage the lamp housing assembly, void the warranty and may cause an electrical shock hazard if the pool bonding is not connected and functioning correctly (see "General Safety", Page 2).

1. Be sure the power is off.
2. Place lamp housing on the deck above the niche. Feed the cord into the niche and through the conduit until the cord reaches the junction box. Make sure that there is enough cord to allow the fixture to be placed on the deck for re-lamping.
3. Make connections in the junction box (be sure to follow code requirements). Connect the supply circuit

grounding wire (green, green and yellow, or bare copper) to the green ground conductor from the light fixture. Connect the line supply wire (the black or 'hot' wire) to the black wire from the light fixture. Connect the neutral (white) supply wire to the neutral (white) wire from the light fixture.

4. Wrap the cord around the lamp housing and place the lamp housing in the niche. Be sure the locator tab on the bottom of the lamp housing is in the notch at the bottom of the niche.
5. Fasten the lamp housing into the niche with the captive leader screw at the top of the fixture (use a No. 2 Phillips screwdriver). Tighten this screw securely (20 inch-pounds torque) to insure good electrical bonding.

Table I

Type of Pool	Allowance of Watts/Sq. Foot of Pool Area
Small Residential Pools (Less than 800 sq. ft.)	1/2 to 1*
Large Public Pools	1 to 1 <sup>1</sup> / <sub>2</sub>
Diving Pools (Less than 12 ft. deep)	1 <sup>1</sup> / <sub>2</sub> to 2
Diving Pools (12 to 20 ft. deep)	2 to 3
Competition Pools	2 to 3**

\* One 500 watt light at deep end of pool is recommended.

\*\* For competition pools:

1. Make sure that the start/finish ends of lanes are well lighted.
2. Never install lights in end walls at end of swimming lanes. However, if short course racing is provided across width of a 50 meter course, light fixtures may be installed between lanes (under racing lines) on a separate switch.

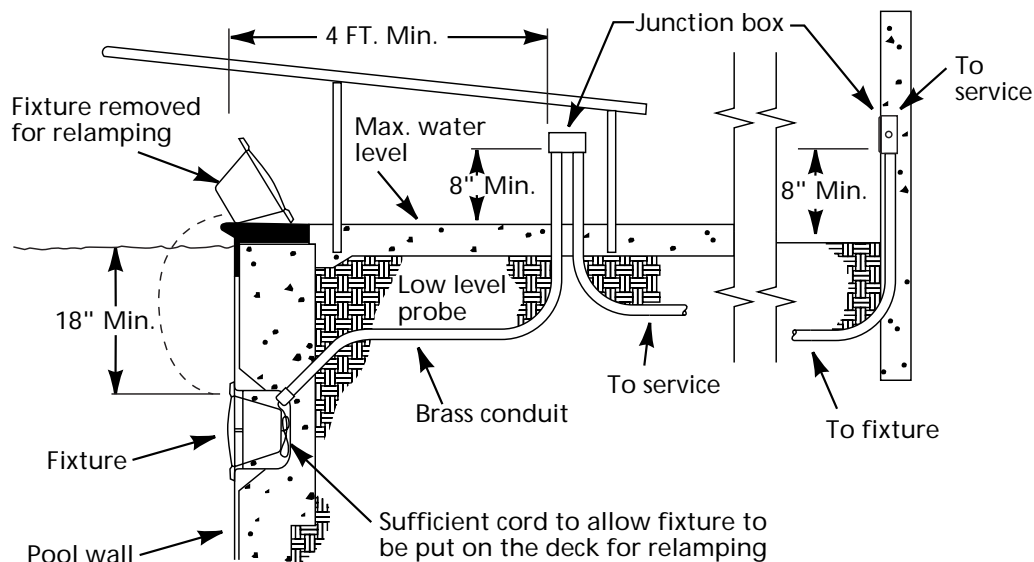


Figure 1 – Lamp Housing Installation

SPECIFICATIONS

NOTICE: The screw in the face ring may be recessed.  
**Sunbrite LTC™ Large Underwater Lights**

Model	Cord Length in Feet (m)
12 Volts - 100 Watts 05503-3030 05503-3050 05503-3100	30 (9.1) 50 (15.2) 100 (30.5)
12 Volts - 200 Watts 05505-3030 05505-3050 05505-3100	30 (9.1) 50 (15.2) 100 (30.5)
120 Volts - 300 Watts 05507-3030 05507-3050 05507-3100	30 (9.1) 50 (15.2) 100 (30.5)

**MAINTENANCE**

**▲ WARNING** Electrical shock hazard. Before removing fixture from pool wall, ALWAYS TURN OFF THE POWER at the breaker. Installation and maintenance of this circuit, the light, light niche, and any other accessories attached to this circuit must be performed by a licensed electrician. The complete electrical system must be installed, tested, and approved by a licensed electrician before it is placed in operation.

**▲ WARNING** Risk of cuts, burns, and electrical shock. Avoid direct impacts on glass lens. Do not install damaged or broken lens.

**For Sunbrite LTC™ Lamps**

See Figure 2, Page 5, for Key numbers.

1. Be sure that the power is off. Allow the lamp to cool before re-lamping.
2. Loosen the captive leader screw (Key No. 1) from the top of the fixture face ring (Key No. 3)  
 NOTICE: The screw in the face ring may be recessed.
3. Remove the lamp housing (Key No. 8) and place on the pool deck.
4. Using a clean soft lint free cloth, carefully wipe all sealing surfaces on the lamp housing and lens. Replace lamp with an equivalent to the original lamp.
5. Replace the gasket (Key No. 6).
6. To reassemble the lens assembly to the lamp housing, reverse the disassembly process. Be sure that the lamp housing is clean, dry, and free of all traces of moisture, before sealing the fixture. Reinstall the clamp screws securely (20 inch-pounds torque).
7. Wind the extra cord around the lamp housing and place the lamp housing back in the niche. Be sure to align the locator tab at the bottom of the lamp housing with the notch in the bottom of the niche.
8. Fasten the lamp housing into the niche using the captive leader screw (Key No. 1) at the top of the trim ring. Tighten this screw securely (20 inch-pounds torque) to insure good electrical bonding.

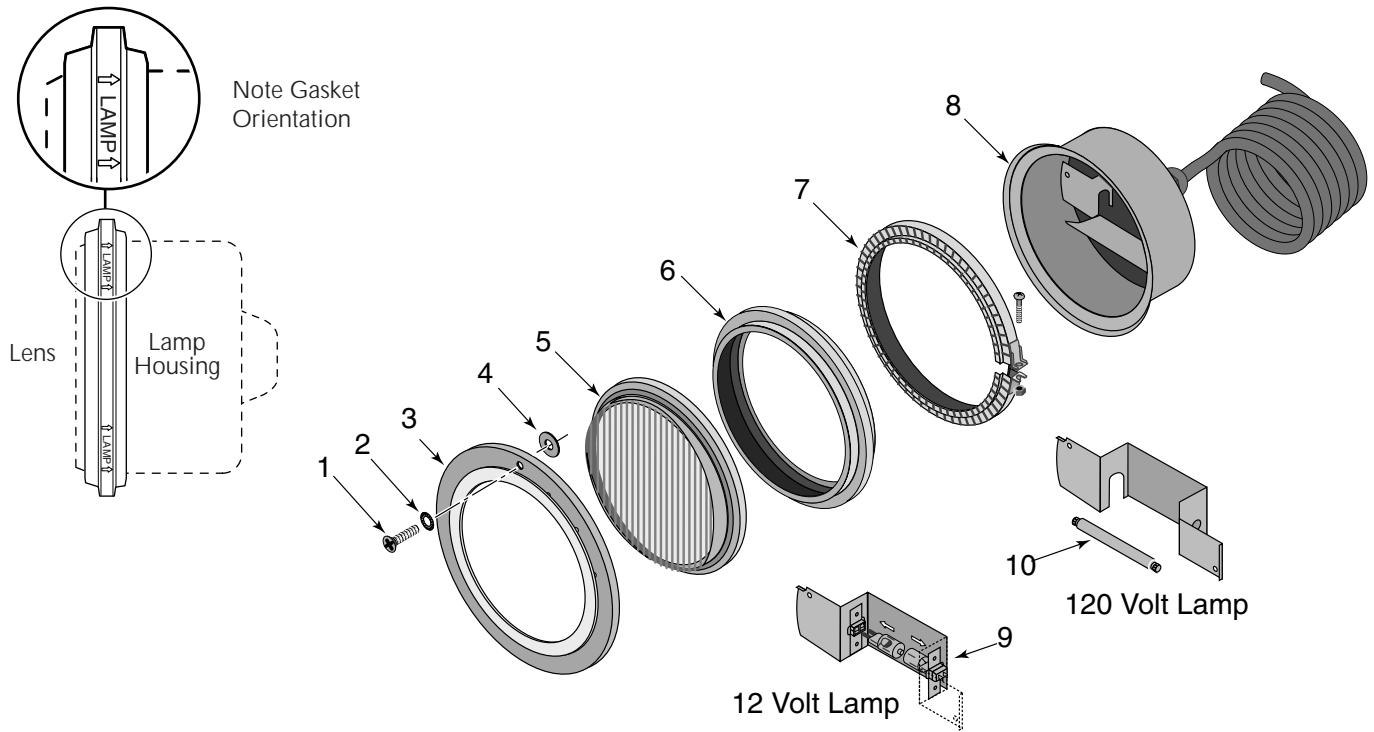


Figure 2 - Replacement Parts Sunbrite LTC™ Lamps Exploded View

### REPAIR PARTS LIST – SUNBRITE LTC™ LAMPS

Key No.	Part Description	Qty.	05503 Series 12V, 100W	05505 Series 12V, 200W	05507 Series 120V, 300W
1	Leader Screw*	1	–	–	–
2	Star Washer*	1	–	–	–
3	Stainless Steel Face Ring Assembly	1	05101-0109A	05101-0109A	05101-0109A
4	Rubber Retainer for Leader Screw*	1	05101-0005	05101-0005	05101-0005
5	Clear Lens	1	34620-0003	34620-0003	34620-0003
6	Lens Gasket	1	05501-0005	05501-0005	05501-0005
7	Clamp Assembly	1	05501-0055	05501-0055	05501-0055
8	Lamp Housing	1	†	†	†
9	50W, 12V, R40 Lamp Use 2 for 100W	1	34600-0016	–	–
9	100W, 12V, R40 Lamp Use 2 for 200W	1	–	34600-0017	–
10	300W, 120V, R40 Lamp	1	–	–	34600-0018
	• Large Popover – Blue		1	34627-6005	34627-6005
	• Large Popover – Red	1	34627-6007	34627-6007	34627-6007

† Not sold separately.

• Not illustrated.

\* Included in Replacement Screw Kit.





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