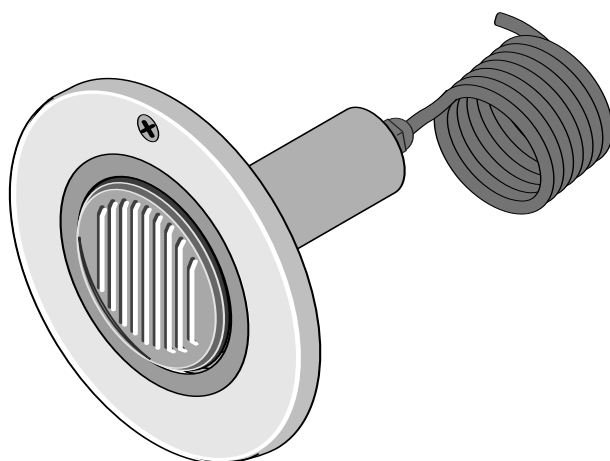


# STA-RITE®

## SunLite® LTC Small Underwater Pool Lights

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 light; its use will reduce service calls and chance of injury and will lengthen light life.

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S715 (Rev. B 10/03/11)



**Attention Installer:** This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment after installation.



**WARNING** — Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.



**DANGER! Risk of Electrical Shock or Electrocution!**



This product must be installed by a licensed or certified electrician or a qualified pool serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard which could result in death --- or serious injury to pool users, installers or others due to electrical shock, and may also cause damage to property. Always disconnect the power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to serviceman, pool users or others due to electrical shock. **READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL.**



**WARNING — Important Safety Information for Pentair Niche and Light Installation**

- All Niche and Light installations must conform with all codes.
- Under no circumstances replace lights by splicing wire under water or behind niche.



**WARNING — RISK OF ELECTRIC SHOCK AND INJURY.**

**USE ONLY THE INSTALLATION METHOD SPECIFIED BELOW.**



**WARNING — THE LIGHT LENS MAY GET HOT WHEN IN USE. USERS SHOULD AVOID CONTACT WITH THE LIGHT AS SERIOUS BURNS MAY RESULT FROM PROLONGED CONTACT WITH THE LIGHT.**

**Important Safety Information for Fountain Fixture Installations**

| Location of Luminaire Use | Pentair Fountain Fixture*<br>(P/N 560000 – P/N 560001)<br>(P/N 560002 – P/N 560003) | Required Installation Method                                                       |
|---------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Swimming Pool or Spa      | Wet-Niche Swimming Pool<br>(or Spa) Luminaire (Light)                               | Fixture Housing (Forming Shell) ONLY.<br><b>DO NOT USE</b> Fountain Fixture Stand. |
| Fountain                  | Wet-Niche Submersible<br>Swimming Pool (or Spa)<br>Luminaire (Light)                | Fixture Housing (Forming Shell) or<br>Fountain Fixture Stand.                      |

(\*) **Note:** Wet-niche luminaires complying with requirements for both uses may bear both the Listed Wet-Niche Swimming Pool (or Spa) Luminaire UL Mark and the Listed Wet-Niche Submersible Luminaire UL Mark. A luminaire not bearing the corresponding UL Listing Mark is not considered by UL to have been produced under UL's Listing and Follow-Up Service for the associated usage location.

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## 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, 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. Failure to have this product installed by a licensed professional will void the product warranty.

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

**All 12 Volt lamps require the installation of a 12 Volt transformer.**

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.

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.

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.

Make sure that the installation is in compliance with local codes, the NEC, and the CEC, as applicable. See Figure 1, Page 5.

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.

**⚠ 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.

# SPECIFICATIONS

**Table I**

| Type of Pool                                       | Allowance of Watts/Sq. Foot of Pool Area |
|----------------------------------------------------|------------------------------------------|
| Small Residential Pools<br>(Less than 800 sq. ft.) | 1/2 to 1*                                |
| Large Public Pools                                 | 1 to 1½                                  |
| Diving Pools<br>(Less than 12 ft. deep)            | 1½ to 2                                  |
| Diving Pools<br>(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.

## SunLite® LTC Small Underwater Pool Lights with Stainless Steel Face Ring

| Model No.               | Cord Length in Feet (m) |
|-------------------------|-------------------------|
| <b>12V - 75 Watts</b>   |                         |
| 05603-2030              | 30 (9.1)                |
| 05603-2050              | 50 (15.2)               |
| 05603-2100              | 100 (30.5)              |
| <b>120V - 100 Watts</b> |                         |
| 05605-2030              | 30 (9.1)                |
| 05605-2050              | 50 (15.2)               |
| 05605-2100              | 100 (30.5)              |
| <b>120V - 250 Watts</b> |                         |
| 05607-2030              | 30 (9.1)                |
| 05607-2050              | 50 (15.2)               |
| 05607-2100              | 100 (30.5)              |

# INSTALLATION

## SunLite® LTC Lamp Housing Installation

(Refer to Figure 1, below)

**⚠ CAUTION** **Burn hazard.** This light should never be energized while laying face down on the pool deck.

**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.**

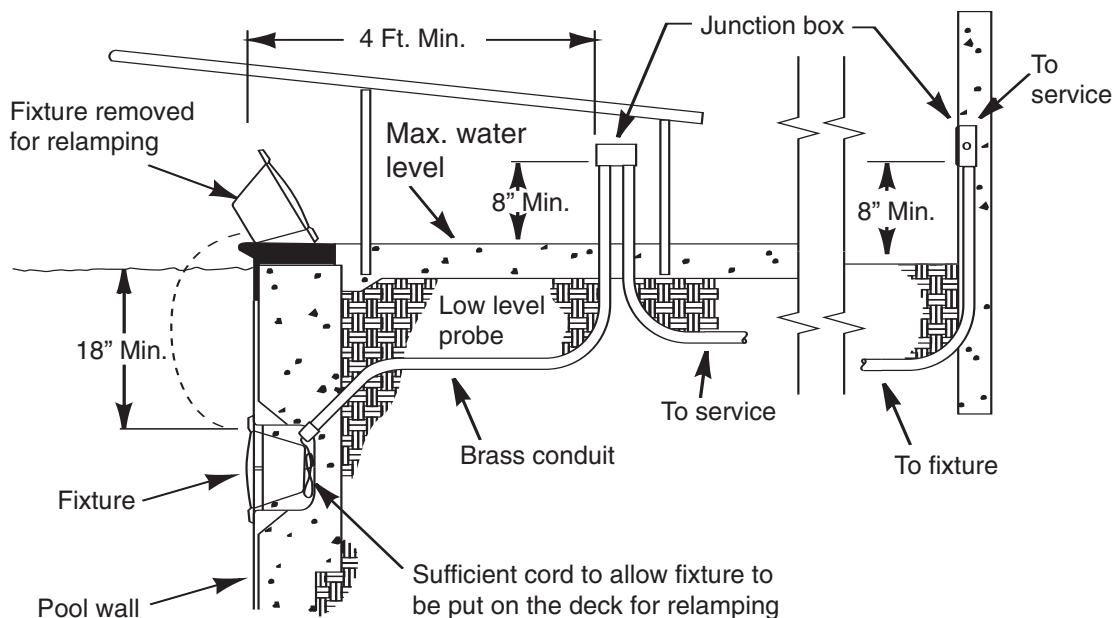
**Do not use an extension cord!** Purchase a light with a longer cord.

1. Be sure the power is off.
2. Place lamp housing on the deck above the niche. Feed the cord through the back of the lamp housing and to the conduit 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 conduit 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. Coil the remaining cord in the back of the niche and place the lamp housing in the niche. The mounting tab on the bottom of the lamp housing must be 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 lamp housing (use a No. 2 Phillips screwdriver). Tighten this screw securely (20 inch-pounds torque) to insure good electrical bonding.

**NOTICE:** The leader screw in the face ring may be recessed.

**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).



**Figure 1: Lamp Housing Installation**

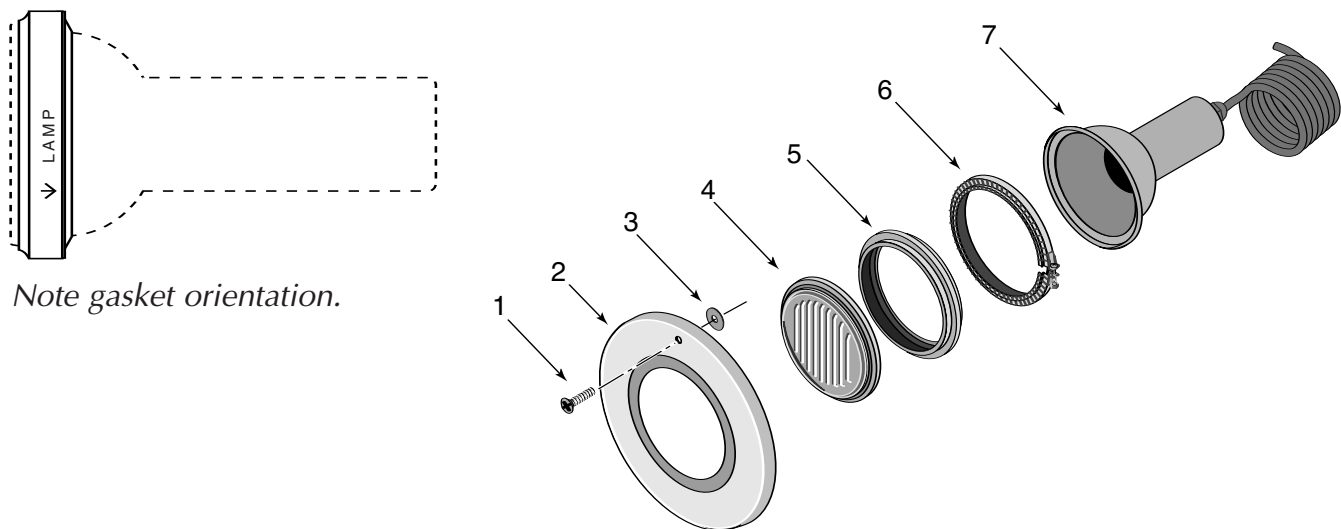
## Lamp Installation Instructions (Re-lamping)

See Figure 2, Page 7, for Key numbers.

1. Be sure that the power is off. Allow the lamp to cool before relamping.
2. Remove the leader screw (Key No. 1) from the face ring and lift the lamp housing up and out of the niche.
3. Loosen the screw and nut on the clamp ring assembly (Key No. 5) until the nut is near the end of the screw. Swing the screw and nut out of the forked slot of the clamp ring assembly and bend the clamp ring open to about 4 inches.
4. To relamp 120V model, remove the lamp by turning it counterclockwise and pulling it straight out. Replace with an equivalent lamp. For the 12V model, remove the lamp by pulling it straight out while holding the spring clip back (away from the socket). Replace with an equivalent lamp.
5. Using a clean soft lint free cloth, carefully wipe all sealing surfaces on the lamp housing and lens.

**NOTE:** Do not touch the lamp with your bare fingers. If contact occurs, clean the lamp glass with alcohol and a clean cloth.

6. To close the fixture, make sure the clamp ring is open to about 4 inches and that the nut is at the end of the leader screw.
7. Lay the face ring face down on a flat surface. Carefully align the clear lens (Key No. 4) and lens gasket (Key No. 5) over the flanged hole in the face ring (key No. 2), with the word "top" on the lens lined up with the leader screw on the face ring. The silver tape should be on top and the arrow pointing toward the lamp.
8. Align the lamp housing over the lens gasket with the word "top" inline with the leader screw in the face ring.
9. Position one half of the clamp ring around the metal flanges of the face ring and lamp housing.
10. Close the clamp ring, fitting the other half over the same flanges.
11. Swing the nut and screw into the slotted end of the clamp assembly. Tighten this screw securely (20 inch-pounds torque) to insure good electrical bonding.
12. To replace the lamp housing in the pool wall hook the bracket at the bottom of the niche and tighten the leader screw on the face ring of the lamp housing.



**Figure 2 – SunLite® LTC Lamp Exploded View**

### REPAIR PARTS LIST – SUNLITE® LTC LAMPS

| Key No. | Part Description                  | Qty. | 05603 Series<br>12V, 75W | 05605 Series<br>120V, 100W | 05607 Series<br>120V, 250W |
|---------|-----------------------------------|------|--------------------------|----------------------------|----------------------------|
| 1       | Leader Screw*                     | 1    | -                        | -                          | -                          |
| 2       | Face Ring, SS, Assy Kit           | 1    | 05601-0001               | 05601-0001                 | 05601-0001                 |
| 3       | Rubber Retainer for Leader Screw* | 1    | 05601-0005               | 05601-0005                 | 05601-0005                 |
| 4       | Clear Lens, Kit                   | 1    | 34620-0002               | 34620-0002                 | 34620-0002                 |
| 5       | Gasket, Lens                      | 1    | 05601-0014               | 05601-0014                 | 05601-0014                 |
| 6       | Clamp Ring Assembly               | 1    | 05601-0006               | 05601-0006                 | 05601-0006                 |
| 7       | Lamp Housing                      | 1    | †                        | †                          | †                          |
| •       | Lamp, 100W, 120V, Halogen, T-4 MC | 1    | -                        | 79102900                   | -                          |
| •       | Lamp, 75W, 12V, Halogen, MR 16    | 1    | 79112400                 | -                          | -                          |
| •       | Lamp, 250W, 130V, Halogen, T-4 MC | 1    | -                        | -                          | 79113800                   |
| •       | Replacement Screw Kit             | 1    | 05601-0101               | 05601-0101                 | 05601-0101                 |

† Not sold separately.

• Not illustrated.

\* Included with Replacement Screw Kit.

**SAVE THESE INSTRUCTIONS**

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