

INSTALLATION INSTRUCTIONS: FOUNTAIN LIGHTING (WITHOUT NICHE)

DANGER: FATAL ELECTRICAL SHOCK CAN OCCUR IF UNDERWATER ELECTRICAL EQUIPMENT IS NOT INSTALLED PROPERLY. THIS EQUIPMENT SHOULD ONLY BE INSTALLED BY QUALIFIED ELECTRICIANS WITH PROPER GROUNDING AND GROUND FAULT INTERRUPTION CIRCUIT BREAKERS IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, SECTION 680, AND ALL OTHER APPLICABLE SECTIONS OF THE CODE.

FOUNTAINS

680-40. General. The provisions of Part D include fountains, fountain pools, ornamental display pools, and reflection pools. Fountains which have water common to a swimming pool shall comply with the swimming pool requirements of this article.

EXCEPTION: *Self-contained, portable fountains no larger than 5 feet in any dimension are not covered by Part D.*

680-41. Lighting Fixtures, Submersible Pumps and Other Submersible Equipment

(a) Ground-Fault Circuit-Interrupter. A ground-fault circuit-interrupter shall be installed in the branch circuit supplying fountain equipment.

EXCEPTION: *Ground-fault circuit-interrupters shall not be required for equipment operating at 15 volts or less and supplied by a transformer complying with Section 680-5(a).*

- (b) Operation Voltage. No Lighting fixture shall be installed for operation at over 150 volts between conductors. Circuits supplying submersible pumps and other submersible equipment shall operate at not to exceed 300 volts between conductors.
- (c) Lighting Fixture Lenses. Lighting fixtures shall be installed with the top of the fixture lens below the normal water level of the fountain unless approved for above water locations. A lighting fixture facing upward shall have the lens adequately guarded to prevent contact by any person.
- (d) Overheating Protection. Electric equipment which depends on submersion for safe operation shall be protected against overheating by a low-water cut-off or other approved means if the water level drops below normal.
- (e) Wiring. Equipment shall be equipped with provisions for threaded conduit entries or be provided with a suitable flexible cord. The maximum length of exposed cord in the fountain shall be limited to 10 feet. Cords extending beyond the fountain perimeter shall be enclosed in approved wiring enclosures. Metal parts of equipment in contact with water shall be of brass or other approved corrosion-resistant metal.
- (f) Servicing. All equipment shall be removable from the water for relamping or normal maintenance. Fixtures shall not be permanently imbedded into the fountain structure so that the water level must be reduced or the fountain drained for relamping, maintenance, or inspection.



This fixture is intended for installation in accordance with the National Electrical Code and local code specifications. Failure to adhere to these codes and instructions may result in serious injury and/or damage to the ballast and void the warranty. These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency related to installation, operation, maintenance, or mounting situation. Should specific problems occur that are not addressed by these instructions, contact your Sales Representative or distributor for assistance. Retain these instructions for future reference.



SAFETY WARNING:

ALWAYS TURN FIXTURE OFF/DISCONNECT POWER AND ALLOW TO COOL BEFORE PERFORMING ANY MAINTENANCE, INCLUDING RELAMPING AND CLEANING!

This fixture can become very HOT! The fixture housing and lens, especially if it is glass, can become hot enough to blister hands. Attention should be paid to where the fixture is mounted, particularly if it can be touched by children or pets. To help prevent premature failure, decreased performance, overheating and risk of fire, keep fixture and lens clean and free of leaves, mulch, debris and mineral deposits from water. The fixture and lens can be cleaned using a soft cloth and a solution of mild liquid soap and warm water. Wipe clean and dry with a soft, lint-free dry cloth. Avoid polishing fixture or lens.



INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR INJURY TO PERSONS IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS!

WARNING - Lamp gets HOT quickly! To reduce the risk of FIRE OR INJURY TO PERSONS:

Do not operate fixture with a missing or damaged lens/lens assembly.

Contact only switch or plug when turning fixture on or off. Do NOT touch hot lens or housing.

Turn off or unplug fixture and allow to cool before relamping. Keep lamp away from combustibles.

Do NOT touch lamp with bare hands at any time, use a soft cloth as oil from skin may damage lamp.

- (g) Stability. Equipment shall be inherently stable or be securely fastened in place.

680-42. Junction Boxes and Other Enclosures.

- (a) General. Junction boxes and other enclosures used for other than underwater installation shall comply with Section 680-21(a), (1), (2), (3); 680-21(b); Section 680-21(c) and 680-21(d).
- (b) Underwater Junction Boxes and other Underwater Enclosures. Junction Boxes and other underwater enclosures immersed in water or exposed to water spray shall comply with the following:
- (1) Shall be equipped with provisions for threaded conduit entries or compression glands or seals for cord entry; and
 - (2) Shall be of copper, brass, or other approved corrosion-resistant material; and
 - (3) Shall be located below the water level in the fountain wall or floor. An approved potting compound shall be used to fill the box to prevent the entry of moisture; and
 - (4) When the junction box is supported only by the conduit, the conduit shall be of copper, brass, or other approved corrosion-resistant metal. When the box is fed by non-metallic conduit it shall have additional supports and fasteners of copper, brass, or other approved corrosion-resistant material. The box must be firmly attached to the supports or directly to the fountain surface and bonded as required.

680-43. Bonding. All metallic piping systems associated with the fountain shall be bonded to the equipment grounding conductor of the branch circuit supplying the fountain.

See 250-95 for sizing of these conductors.

680-44. Grounding. The following equipment shall be grounded: (1) all electric equipment located within 5 feet of the inside wall of the fountain; (2) all electric equipment associated with the recirculating system of the fountain; (3) panelboards that are not part of the service equipment and that supply any electric equipment associated with the fountain.

680-45. Methods of Grounding.

- (a) The following provisions of Section 680-25 shall apply: Paragraph (a) and (d) excluding Exception No. 3.
- (b) Electric equipment that is supplied by a flexible cord shall have all exposed noncurrent-carrying metal parts grounded by an insulated copper equipment grounding conductor that is an integral part of this cord. This grounding conductor shall be connected to a grounding terminal in the supply junction box, transformer enclosure or other enclosure.

680-46. Cord- and Plug-Connected Equipment.

- (a) Ground-Fault Circuit-Interrupter. All electric equipment, including power supply cords, shall be protected by ground-fault circuit-interrupters.
- (b) Cord Type. Flexible cord immersed in or exposed to water shall be a water resistant Type SO or ST.
- (c) Sealing. The end of the flexible cord jacket and the flexible cord conductor termination within equipment shall be covered with or encapsulated in a suitable potting compound to prevent the entry of water into the equipment through the cord or its conductors. In addition, the ground connection within equipment shall be similarly treated to protect such connections from the deteriorating effect of water which may enter into the equipment.

- (d) Terminations. Connections with flexible cord shall be permanent, except that grounding-type attachment plugs and receptacles shall be permitted to facilitate removal or disconnection for maintenance, repair, or storage of fixed or stationary equipment not located in any water-contained part of a fountain or pool.

680-47. Equipment Rooms. Electric equipment shall not be installed in rooms which do not have adequate drainage to prevent water accumulation during normal operation or filter maintenance.

INSTRUCTION SHEET FOR FOUNTAIN LIGHTS WITHOUT NICHE

WARNING: SUBMERGE BEFORE OPERATING. FRESH WATER USE ONLY.

1. Assemble tripod stand and attach fixture as required.
2. Run power cord *continuous* and *unbroken* to an approved junction box. Make waterproof connection to the junction box using conventional pipe sealant. Seal around all wires and splices with SWS 930 silicone sealant or another nonacetic acid cure type sealant. **IMPORTANT - To prevent entry into junction compartment, conduit entries must be sealed, and potting of the entire compartment is required.** Recommended potting compounds: re-enterable encapsulant per catalog, RTV Silicone, or paraffin wax. **Failure to pot wiring compartment may void warranty.**
3. If lamp not supplied with fixture, open and install proper lamp of correct wattage given on nameplate. Replace lens and torque *all* retaining screws to 58 in./lbs. Use "Criss-Cross" method of tightening screws equally to provide even pressure on gasket around its entire circumference.

SERVICE

DANGER: DISCONNECT POWER BEFORE SERVICING.

1. When relamping fixtures, inspect gaskets, cord seals, socket and cord for possible worn or dangerous conditions that may become a fatal shock hazard. Do not use higher wattage lamp.
2. Do not reinstall in the fixture cracked or worn gaskets, lens, cord seal, socket, cord, or any damaged equipment.
3. We recommend replacing gaskets when relamping fixtures.
4. See catalog for replacement parts.
5. Do not convert pool to salt water.

CORROSIVE WATER CONDITIONS WARNING:

Excessive use of bromine or chlorine in water can cause a corrosive environment for bronze alloy light fixtures. Proper pH balance above 7.0 should be maintained at all times to eliminate the risk of corrosion. A natural patina process of the fixture may occur in these conditions and is not harmful in any way.

