

TYPICAL SWIMMING POOL WIRING (REFER TO NEC)

A junction box for a pool light must contain a terminal bar for the connection of the grounding conductors for the pool light cord, the #8 insulated grounding conductor from the wet niche shell, and the insulated grounding conductor of the power supply. [680.23(B)(3)] and [680.24(D)]

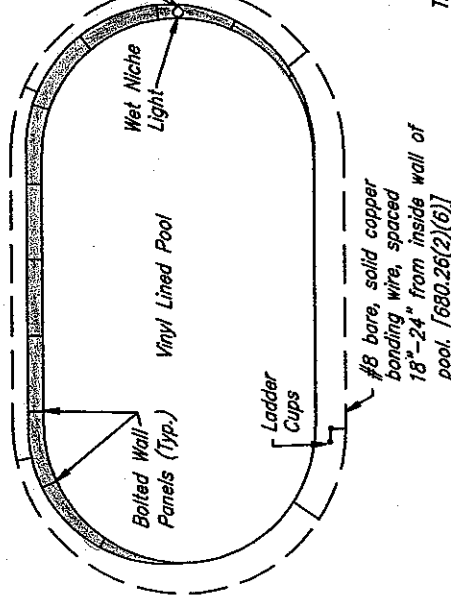
A junction box, if used, must be a minimum of 4 feet from the inside wall of the pool, unless separated from the pool by a permanent barrier. The bottom of the junction box must be a minimum of 4 inches above grade level, or pool deck, or not less than 8 inches above the maximum water level, whichever provides the greater elevation. [680.24(2)]

*Refer to Article 680 of the National Electric Code (NEC) for entire text and exceptions.

The feeder conductors on the supply side of a sub-panel that provides power to the branch circuits for pool equipment are required to be installed in conduit. [680.25 (A),(B)]

The only underground wiring allowed within 5 feet of the inside wall of a pool is wiring associated with pool equipment. (680.10) Such wiring within 5 feet of the inside wall of a pool must be installed in approved conduit. (680.10)

ALL metal parts, fittings, and equipment associated with the pool, and all other fixed metal parts within 5 feet of the interior walls of the pool, such as metal fencing, metal door or window frames, etc., are required to be bonded together using a #8 minimum insulated, covered, or bare copper conductor. [680.26(B)]



The following are required to have GFCI protection:

1. Underwater light. [680.23(3)]
2. Pump motor if 120 or 240 volt, 15 or 20 amp., single phase, whether supplied by receptacle or directly connected. [680.22(B)]
3. Any above grade lighting that is at least 5 feet from and not more than 10 feet horizontally from the inside wall of the pool and if less than 5 feet in vertical distance above the maximum water level. [680.22(C)(4)]

*Any above grade lighting within 5 feet horizontally of the inside wall of a pool must have a minimum vertical clearance of 12 feet above the maximum pool water level. [680.22(C)(1)]

Underwater Pool Light - a #8 insulated, solid or stranded, copper bonding wire must be installed from the J-box or GFCI enclosure to the wet niche shell when PVC is used. The termination in the wet niche shell must be covered or encapsulated in a listed potting compound to protect against the deteriorating effects of pool water. [680.23(B)(2)]

#8 bare, solid copper bonding wire, spaced 18"-24" from inside wall of pool. [680.26(2)(6)]