

PERMANENTLY INSTALLED SWIMMING POOLS

ELECTRICAL WIRING REQUIREMENTS

2014 National Electrical Code

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PERMANENTLY INSTALLED SWIMMING POOLS ARE THOSE THAT ARE CONSTRUCTED IN THE GROUND OR PARTIALLY IN THE GROUND AND ALL OTHERS CAPABLE OF HOLDING WATER WITH A DEPTH GREATER THAN 42 INCHES (1067 MM)

1) Pool Pump Receptacle (Outlet) and Wiring Method

- a. If a pump motor receptacle is located between 6' – 10' from the inside pool wall, the receptacle must be a single outlet, grounded, and Ground Fault Circuit Interrupter (GFCI) protected.
- b. Receptacle must have an extra-duty, in-use, weatherproof cover that can be closed when the cord is plugged in.
- c. The circuit line for the pump motor must be a continuous line going directly to the panel box, and is to be isolated from all other receptacles.
- d. Wire for the pump motor shall not be less than #12 AWG insulated copper grounded wire, and must be in conduit. (Exception: When entering a building the wire can change to NM) (Cannot use NM wire in conduit).
- e. Conduit
 - i. PVC – All PVC conduit* must be buried at least 18" deep (12" if GFCI protected).
 - ii. Metal – All Rigid Metal Conduit* must be at least 6" deep.

* Wires used in conduit must be single strand wires (ex: THWN, etc - NO NM or UF CABLE in Conduit).

2) Convenience Receptacle (Outlet) and Wiring Method

- a. At least one (1) 15- or 20-ampere convenience receptacle must be located not closer than 6' but not further than 20' from the outside pool wall (Can be existing and/or wired with any approved wiring method).
- b. Convenience receptacle must be Ground Fault Circuit Interrupter (GFCI) protected, Tamper Resistant (TR), and Weather Resistant (WR) type receptacle.
- c. Must have an extra-duty, in-use, weatherproof cover that can be closed when in use (for all wet locations).
- d. Must be separate from the pool pump receptacle wiring.
- e. Wiring
 - i. UF cable if buried must be at least 24" deep.
 - ii. PVC – All PVC conduits* must be buried at least 18" deep (12" if GFCI protected).
 - iii. Metal – All Rigid Metal Conduits* must be at least 6" deep

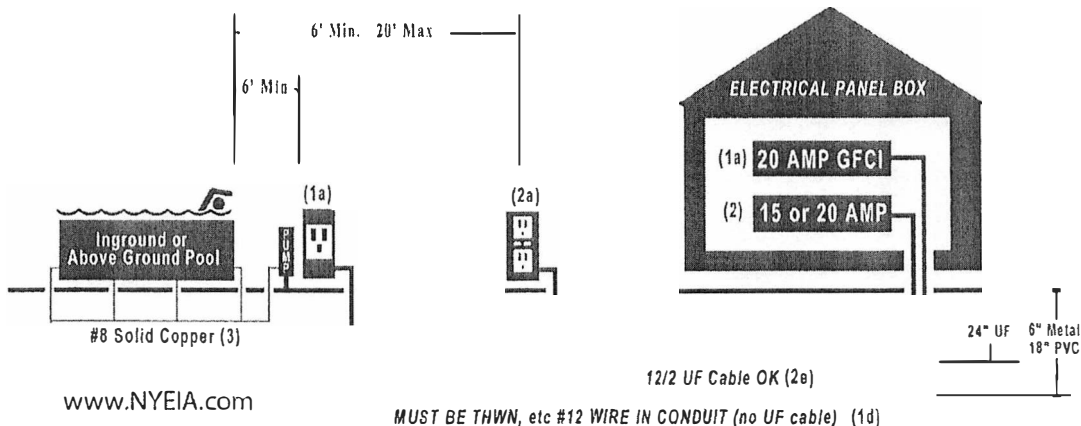
* Wires used in conduit must be single strand wires (ex: THWN, etc. - NO NM or UF CABLE in Conduit).

3) Bonding The Pool

- a. All metal parts must be bonded together using a #8 (or larger) solid copper wire.
- b. Must use non-corrosive clamps.
- c. Conductive pool shells must be bonded in a minimum of four (4) equal points uniformly spaced around the pool
- d. Nonconductive pool shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside pool wall under the perimeter surface 4"-6" below the final grade.
- e. A minimum of nine (9) square inches of corrosion resistant metal must be in the water to bond the water.

4) Other

- a. Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
- b. Pool Alarms are required. (Check with your local Building Department for additional information).
- c. Pool Pump Timers: (Check with your local Building Department for additional information).



PLEASE CONTACT YOUR LOCAL INSPECTOR IF YOU HAVE ANY QUESTIONS
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