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## ***Electrical Guidelines for Residential Pools***

1. A Metal or PVC conduit system is required outside the dwelling unit. The conduit must include THWN circuit conductors, typically black white and green.
2. Burial Depth is routinely 18" for PVC conduit.
3. Unless a pool light is present, any approved wiring method within the dwelling is approved for use as the Branch Circuit or feeder to the pool equipment **but must be changed over to conduit once this wiring leaves the dwelling unit.**
4. Minimum filter motor attachment cord size # 12 AWG and no longer than 3 feet.
5. Minimum ground wire size # 12 AWG.
6. A weather-resistant receptacle is required for filter motor located at a minimum of 6 feet from pool wall. This receptacle shall be Ground Fault protected and shall employ an "In-Use" cover. This circuit shall be dedicated to the filter motor and shall have no other devices connected.
7. The filter motor may be "hard wired" but a disconnecting means is required and with-in sight of filter. Ground fault protection is required.
8. A timer must be installed to control the filter as per the (IECC) Energy Code.
9. A separate convenience receptacle shall be located between 6 feet and 20 feet from the pool wall. It shall be Ground Fault protected and may be connected to a routine circuit in the dwelling.
10. All metal parts within 5' of the pool (fences, Bilco doors lamp posts etc.) must be bonded to the pool and within the bonding grid described in #12 of this handout.
11. Any perimeter surface within 3 feet of the contour of the pool requires the installation of an equipotential bonding grid. (See NEC Article 680.26)
12. The equipotential bonding grid is a # 8 solid copper bare wire required to be installed around entire circumference of the pool, at a depth of 4 to 6 inches below finished grade, at a distance of 18 to 24 inches from the inside wall of the pool. This bond wire must attach to the pool frame at 4 equidistant points using a direct burial lug fastened to the frame with either a galvanized or stainless steel nut and bolt. This bond wire must also pass through the lug provided by the manufacturer on the pool filter pump motor along with the water bond lug.
13. A Water Bonder must be installed to bond the pool water as per NEC.
14. Pool circuits shall be identified in the circuit breaker panel.
15. For Spas and Hot Tubs refer to the National Electrical Code Article 680 Part IV.
16. Consider hiring a Licensed Electrical Contractor.

"To protect the Health, Safety, and Welfare of the Public"