COMMONWEALTH ELECTRICAL INSPECTION SERVICE INC.
1355 PITTSFORD-MENDON ROAD, PO BOX 723, MENDON, NY 14506

Hot Tub Pre-inspection check list

Complete / review this list before calling for an inspection.

1. ___ Have building permit available we may need permit number and or may have to sign permit. Varies with local municipality.

2. ___ Hot tub GFCI protected.___ shut off 5 - 50 feet and within sight.

3. ____Convenience receptacle located between 6 and 20 feet. GFCI protected with bubble style cover.

4. ____Ditch open in a few spots__ 240 volt lines 18 inch deep 120 volt 12 inches deep if GFCI protected before going in ground.

5.___ All metal parts bonded to pump with #8 solid CU wire.
_____ Normally done at factory NO GROUND RODS!!

6. ___ Perimeter equipotential bonding all on ground hot tubs #8 solid CU 18 -24 inches from tub edge 4-6 inches deep and bonded to pool pump lug.

7. ___ All existing receptacles within 20 feet of tub must be GFCI protected.
____ None can be closer that 6 feet.

8. ____ All ground wires must be mechanically fastened in junction boxes with wire nuts or other approved fasteners. ___Metal boxes must be bonded to grounding wires.

9. ___ If a breaker is used for tub pump make sure it is a Ground fault GFCI not Arc Fault AFCI. A blank face GFCI can be used also.

10. ____ Town will look for pool alarm and fence if needed.

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Pool Pre-inspection check list

Complete / review this list before calling for an inspection.

1. ___ Have building permit available we may need permit number and or may have to sign permit. Varies with local municipality.

2. Pool pump: ___Twist lock plug for pool pump if between 6 and 10 feet from waters edge.___ Water tight bubble cover. ___Pump cord 12 gauge wire no longer than 3 feet with water tight connector at pump.

3. ____Convenience receptacle located between 6 and 20 feet. GFCI protected with bubble style cover.

4. ____Ditch open in a few spots__ 12 inches deep if GFCI protected wires. __ 18 inches if not. ___PVC conduit with 3 THHN-THWN conductors (Black,White,Green) Green must be #12 AWG wire for pool pump. ___UF wire ok for Convenience receptacle.

5.___ All metal parts bonded to pump with #8 solid CU wire.
_____ If no metal parts. Is water bonded by 9 sq in. of metal?

6. ___ Perimeter equipotential bonding all pools #8 solid CU 18 -24 inches from pool edge 4-6 inches deep and bonded to pool pump lug.

7. ___ All existing receptacles within 20 feet of pool must be GFCI protected.___ None can be closer that 6 feet.

8. ____ All ground wires must be mechanically fastened in junction boxes with wire nuts or other approved fasteners. ___Metal boxes must be bonded to grounding wires. NO GROUND RODS.

9. ___ If a breaker is used for pool pump make sure it is a Ground fault GFCI not Arc Fault AFCI. A blank face GFCI can be used also.

10. ____ Town will look for circuit timer, pool alarm and fence.

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SPRING 2012 RULES

This covers most pools

ELECTRICAL CODE RULES BASED ON 2008 N.F.PA -70
THE RESIDENTIAL CODE OF New York STATE 2010

ALL IN-GROUND POOLS AND ABOVE GROUND POOLS CAPABLE OF HOLDING 42" OR MORE OF WATER ARE CONSIDERED PERMANETLY INSTALLED POOLS

1. Wiring for pump motor shall not have less than **# 12 AWG insulated copper grounding** wire, and to be in conduit, except when entering building can change to NM cable **680.21(A) (1-4)** If using 15 amp breaker may be 14 gauge wire for hot and neutral but ground must be #12.

2. If the pump motor receptacle is located **from 6' to 10'** from outside pool wall. The receptacle must be **single, twistlock, 15 or 20amp, GFCI protected with watertight inuse cover**. **680.22(A)(1)(1-4)**

3. Pump motor cord **shall not exceed 3'** and shall have a grounding wire of not smaller than **# 12 AWG** copper. **680.7**

4. Circuit line for pump motor shall be a continuous circuit going directly to panel box and **shall have no other receptacles**. **430-22(A)** All pumps and heaters must have a timer controlled power circuit. (Energy Code)

5. A receptacle used unattended in a wet location shall have a **watertight inuse cover.** **406.8 (B)(1)**

6. All underground UF wire and PVC conduits must be 18" deep, unless circuit is protected by GFCI upstream then 12" deep. **300.5** Only electric specific to the pool is allowed less than 5" feet to the water's edge and must be **18" deep** and be installed in a approved raceway. **680.10**

7. At least one convenience **receptacle must be located between 6 and 20** feet from the waters edge and must be GFCI protected. Existing outlets between 6 and 20 feet shall be GFCI protected. **680.22(A)(1-5)** This can be wired with any approved wiring method.

8. All metal parts must be **bonded together with a No. 8 or** larger solid copper wire must be used. (Motor, ladders pool frame, diving board, lights, etc.) **680-22 / E4104.1**

9. **A minimum** of 9 square inches of metal must be in contact with the water to bond water.

10. PERIMETER EQUIPOTENTIAL BONDING all pools with shall have #8 CU 18-24 inches out 4-6 inches deep if no concrete with wire or mesh in it. 680.26 (B) (2) this wire must circle pool.

11. When bonding pool frame or any metal parts to main bonding wires or wire mesh, you must use listed **non-corrosion clamps**. **680-22(A)(B) / E4104.1** Both #11 and #12 attach to motor lug.

12. For in pool lights ask for separate light regulation sheet.

13. For any lighting fixtures outside of pool. **680-6 (b) (1) (2) (3) / E4103.4.3**

NOTE: A building permit is required in **ALL** localities, secure permits **before starting**.
Pool alarms required on all new pools.

Bonding and wiring layout page 2. 2012 Spring 2012 rules
(Based on the 2008 NEC and the 2010 Residential Code of NY)

(POOL) Regardless of the shape or if it is above ground or in ground the distances are the same. Water bonded Note 9#
(A) All receptacles must be outside the 6 foot space. Note #2
(B) A # 8 solid copper bonding ring 18-24 inches out 4-6 inches deep. All metal parts also connected. Note #s 8 and 10.
(C) A receptacle located between 6 and 10 feet if for the pump must be twist lock type. Note # 2 on rules page.
(D) A convenience receptacle must be locate between 6 and 20 feet from waters edge and must be GFCI protected. Note #7
(E) The pump can be located anywhere as long as the cord is 3 feet or less and the receptacle is at least 6 feet from waters edge.

6 ' A	A	(A) 6 FOOT FROM POOL EDGE (Not to Scale)	A	0-6 FOOT	6-10 FOOT	10-20 FOOT
A	B	B 18-24" FROM POOL EDGE 4-6 INCHES DEEP	B	A	C	D
A	B 1 8 T o 2 4 "	(POOL) POOL WATER BONDED TO PERIMETER BONDING (B) # 8 SOLID COPPER TO SURROUND POOL 18 -24 INCHES OUT 4-6 INCHES DEEP	B 1 8 T o 2 4 "	A E PUMP MAX CORD 3 FEET LONG TWIST LOCK PLUG	C E PUMP MAX CORD 3 FEET LONG TWIST LOCK PLUG	D E PUMP MAX CORD 3 FEET LONG ANY PLUG
A	B	B	B	A	C	D
A	A	A	A	A	C	D

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