

## **Common Electrical Violations on Residential Inspections**

- 1) Section 110.12(A) Unused openings not closed, or closed improperly.
- 2) Section 110.12(C) Internal parts contaminated by paint, or broken.
- 3) Section 110.12(B) Air circulation is blocked.
- 4) Section 110.14 Dissimilar metals (aluminum and copper) connected together improperly.
- 5) Section 110.14(A) More than one conductor terminated where terminal listed for only one.
- 6) Section 110.14(C)(1) failure to include the termination temperature limitations when determining allowable ampacities of conductors.
- 7) Section 110.22 Failure to legibly mark each disconnecting means as to its purpose.
- 8) Section 110.26(A) Failure to provide proper working space in front of panels.
- 9) Section 110.26(F)(1) Failure to provide dedicated equipment space above and below panels.
- 10) Section 110.27(B) Failure to provide protection (guards, bollards, etc.) for electrical equipment likely to be exposed to physical damage.
- 11) Section 200.6(A) Use of white "phase tape" to identify 6 AWG grounded conductors
- 12) Section 210.19(A)(4)Exc. 1(c) Use of 14 AWG taps for receptacle outlets on a 20 amp branch circuit.
- 13) Section 230.2 Lack of identification plaques when alternate sources of power are present.
- 14) Section 230.10 Use of live vegetation for the support of temporary service conductors.
  - a. Seasonal lighting displays
  - b. Construction electrical power
- 15) Section 230.24(A) Insufficient clearance above roofs for service drop conductors.
- 16) Section 230.8 Use of service mast to support other items (i.e. antennas, dishes, telephone or cable)
- 17) Section 230.51(A) Insufficient supports for the service cable riser.
- 18) Section 230.54(F) Service head not higher than the service drop conductors.
- 19) Section 230.70(A)(1) Service disconnect not readily accessible outside the building or inside nearest the point of entry.
- 20) Section 230.72(A) Service disconnecting means not grouped nor marked to indicate the load served.
- 21) Section 230.72(C) All occupants do not have access to their service disconnecting means.
- 22) Section 240.33 Circuit breaker enclosures installed horizontally, where the circuit breaker is not "on" in the "up" position.
- 23) Section 250.4(A)(4) Electrically conductive materials likely to become energized are not bonded in a manner to establish an effective ground-fault current path.
- 24) Section 250.24 (B) Main bonding jumper not installed at service, or main bonding jumper installed at other than service panel (sub-panel).
- 25) Section 250.64(E) use of ferrous metal conduit or tubing (RMC, IMC, EMT) to sleeve the Grounding Electrode Conductor (GEC) without bonding to the GEC.
- 26) Section 250.86 Exc. 3 Use of metal elbows in a run of nonmetallic conduit where the metal elbow is not covered entirely by 18 inches of earth nor bonded.

- 27) Section 250.92(B) Not using bonding type locknuts or bushings where required for services.
- 28) Section 250.94 Not providing an accessible means external to enclosures for connecting intersystem bonding and grounding electrode conductors at the service equipment.
- 29) Section 285.21(A)(1) and (2) TVSS installed at service or feeder main disconnect line side(also a violation of the listing of lugs normally rated for a single conductor each) instead of through a two pole CB.
- 30) Section 300.4(E) Failure to install an insulated bushing (or other means to provide a smoothly rounded insulating surface) when installing a raceway entering a box enclosure, cabinet or raceway containing ungrounded conductors 4 AWG or larger.
- 31) Section 300.5 Underground installations not deep enough per table 300.5
- 32) Section 300.7 Failure to seal conduits that connect cold areas to warm to prevent the circulation of warm air to the colder section of the raceway or sleeve.
- 33) Section 300.11(A) Use of ceiling grid support wires to support cables or raceways.
- 34) Section 300.11(B) Use of raceways to support other raceways or cables, where not identified for the purpose, nor Class 2 control circuits.
- 35) Section 310.8(D) Use of conductors or cables not listed or marked as sunlight resistant exposed to sunlight.
- 36) Section 310.15(A)(2) Failure to consider the Correction Factors for ambient temperatures as found in the lower part of the Allowable Ampacities Tables when computing the ampacities of conductors.
- 37) Section 312.6(A) Use of wiring gutters with conductors 4 AWG and larger and not allowing wire bending space per Tables 312.6(A) and (B).
- 38) Section 312.8 Overfilling of enclosures for switches and overcurrent devices.
- 39) Section 314.4 Failure to ground a metal box.
- 40) Section 314.16 Overfilling of junction boxes.
- 41) Section 314.20 Box installed too deeply into wall without box extension.
- 42) Section 314.21 Plaster or GWB not repaired around box to within 1/8<sup>th</sup> of an inch.
- 43) Section 314.23(H)(1) Boxes supported from a cable or cord and not connected with a strain relief fitting.
- 44) Section 314.25(A) Metal cover on non-metallic box is not grounded.
- 45) Section 314.27(C) Receptacle box installed in the floor not listed as floor box.
- 46) Section 314.27(D) Ceiling box for paddle fan not listed as paddle fan box.
- 47) Section 314.28(A) Boxes for conductors 4 AWG and larger not provided with correct size box.
- 48) Section 314.28(C) Boxes do not have covers.
- 49) Section 334.10(A) Use of NM cable in wet location (outside conduit run underground or on wall).
- 50) Section 334.24 Bends of NM cable tighter than 5 diameters.
- 51) Section 334.15(C) Use of conduit or tubing as a protective sleeve for NM cable installed on the walls of unfinished basements without the use of a bushing or adapter fitting at the point where the cable enters the conduit or tubing.
- 52) Section 400.8(1) Use of flexible cords as a substitute for the fixed wiring of a structure.
- 53) Section 408.36(F) Use of a backfed circuit breaker without additional fastening device.

- 54) Section 410.4(A) Luminaire installed in a wet location such that moisture accumulates in the wiring compartment.
- 55) Section 410.8(C) Incandescent luminaire or lampholder with exposed bulb installed in clothes closet.
- 56) Section 410.8(D) Luminaires installed in clothes closets with insufficient clearance.
- 57) Section 440.64 Extension cords that supply a room air conditioner exceed the length requirements.
- 58) Section 680.10 Underground wiring not supplying pool equipment is installed within 5 feet of the pool.
- 59) Section 680.10 Underground cable or PVC wiring not minimum 18 inches deep.
- 60) Section 680.23(B)(2) Junction box extending directly to a wet-niche forming shell not listed for use as such.
- 61) Section 680.26(B)(1) All metallic parts of the pool structure not bonded together.
- 62) Section 680.26(C) Equipotential Bonding Grid not completed.
- 63) Section 680.43(D) All metal parts within 5 feet are not bonded.