



Development Services Center

EL-08

Electrical Panels – Homeowner Guide to Changing

INSTRUCTIONS FOR CHANGING ELECTRICAL PANEL:

NOTE: The Washington State Administrative Code (WAC) requires that the serving utility (Avista Utilities in the City of Spokane) be consulted by the homeowner or contractor regarding the service entrance location and meter equipment requirements before installing the service and equipment. (WAC 296-46B-160)

1. Mast going through roof and supporting drop must be 2" rigid steel minimum.
2. Service conductors must have 18" clearance above roof at connection.
3. If drop support is over 24" above roof on mast, a guy kit is required.
4. Two straps are required above meter as shown in attached drawing.
5. Top of meter to be between 4' and 6' above grade (check with serving utility on acceptable location).
6. Conduit on outside of building may be EMT, IMC, GRC, or PVC: (a) If metal is used, must be bonded with grounded bushing; (b) EMT is not allowed for service conductors inside building.
7. Panel: (a) Must be main breaker; (b) must be listed as service equipment; (c) must have means of bonding neutral to ground; (d) must be sized for load to be served – 100 amp minimum.
8. **Ground wires to be run from neutral buss to first 5 feet of water pipe and to 2 ground rods spaced minimum 6 feet apart.** Also, any gas lines and metal drain lines need to be bonded to water lines. Water meter, if in building, needs to be jumpered: (a) Water line, #4cu 200A - #6cu 100A; (b) ground rods, #6cu 200 & 100A; (c) gas and drain, #6cu 200 & 100A; (d) water meter jumper, #4cu 200A, #6 100A.
9. Breakers to be sized for circuits they feed: (a) 15A - #14; (b) 20A - #12; (c) 30A - #10; (d) 40A - #8; (e) 50A & 60A - #6. Above wire cu.
10. Panel location: (a) Not in clothes closets, cupboards, attics, shower rooms, bathrooms, placed above washers, dryers, benches, stairs, or any plumbed-in fixtures (sinks, hot water tanks, water softeners); (b) must be readily accessible and have light in same area; (c) if located outdoors, must be rain-tight.
11. All wire connections must be made with approved fittings (wire nuts, split bolts, etc.), not just twisted together.
12. In duplexes all circuits must be separated. One unit must not serve any circuits in the other unit. This includes hot water.

When in doubt about what you are going to do, CALL AND ASK YOUR INSPECTOR FIRST! Call for inspection when the job is finished, or before covering any new wiring.



My Spokane

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