



ELECTRICAL METER PANEL UPGRADES

Permitting Guidelines

Electrical meter panel upgrades/change-out electrical permits are issued over the counter. The upgrade/change-out requires coordination with the utility company. The service/work order from the utility must be provided to the Permit Technician at the counter in order to pull the electrical permit. Generally the utility company will disconnect in the morning and re-connect the same afternoon provided the panel passes the preliminary inspection by the City Inspector. After the panel passes inspection the City will release the meter to the utility company.

MINIMUM REQUIREMENTS

1. Electrical permit required
2. Job Card posted on site
3. Must be installed per the 2016 CA Electrical Code
4. Electric meter panel secured to framing member
5. Dead man installed and secure
6. All circuits labeled on dead man cover
7. Proper phasing for 3 conductor Romex (red/black)
8. 240v circuit breaker handles tied together
9. DW/GD circuit breaker handles tied together
10. Interior of panel complete
11. Proper wire size (see wire schedule)
12. Panel fill/do not overload
13. Single wire to each breaker (no double wires allowed)
14. Neutrals and grounds to be landed and a single lug per wire per panel listing
15. Minimum splices in panel box enclosures
16. Rust inhibitor on all aluminum conductors and proper splice nuts for al/cu connections (purple)
17. Spare or future circuits not landed to a circuit breaker shall be capped (wire nut) and space must be available on the bus bar for the future breaker(s)
18. Ground bonds to include Water pipe & Gas pipe
19. Ufer ground or ground rod clamp secure and accessible
20. Ground wire exposed on the outside of the building to be shielded
21. Meter height 4'6" minimum – 6' 8" maximum from finished grade
22. Clear working space of 30" x 36"
23. Romex to be clamped and/or stapled and proper guard strips (nail plates) as required
24. Provide opening through stucco/siding for future circuit
25. No open knockouts/Plug empty holes
26. J boxes and LB boxes to be secured and sealed
27. #4 AL or #6 CU grounding conductor wire required for 200amp panel
28. Stucco lath repair requires inspection for proper flashing and stucco wire
29. Minimum 6" vertical lap and 3" horizontal lap on stucco lath paper

SINGLE FAMILY RESIDENTIAL CONDUCTOR/CONDUIT SIZE CHART*

*Consult your local Utility for conduit size and wire size

Service Main Amps	Entrance Conductors Minimum Thhn/thwn	Rigid metal Conduit Mast/Riser	Grounding Electrode Conductor	Cold water/ Gas bond	Grounding Electrode (Concrete encased)	Grounding Electrode (Made Electrode)
100	4 AWG	1"	8 AWG	10 AWG	8 AWG	8 AWG
125	2 AWG	1"	8 AWG	10 AEG	8 AWG	8 AWG
200	2/0 AWG	1½"	4 AWG	8 AWG	4 AWG	6 AWG
225	3/0 AWG	1½"	4 AWG	8 AWG	4 AWG	6 AWG
400	400KCMIL	2½"	1/0 AWG	8 AWG	4 AWG	6 AWG