
POLICY NUMBER: 26-012**MODIFICATIONS TO ELECTRICAL SERVICE PANEL****PURPOSE:**

The purpose of this policy is to ensure the safety, integrity, and compliance of electrical equipment installations by **prohibiting unauthorized** field modifications to listed electrical panel enclosures. Electrical panels and cabinets are designed, tested, and listed under specific conditions. Altering these enclosures—such as by adding new holes or modifying knockouts not provided by the manufacturer—can compromise the equipment’s listing, void warranty, mechanical integrity, weather protection, and electrical safety.

This policy also enforces consistency in plan review, field inspections, and project approvals, ensuring that all electrical panels are installed uniformly in accordance with manufacturer requirements and code provisions.

POLICY:

Field modifications to electrical panels or enclosures that include manufacturer-provided knockouts are not permitted **unless written confirmation and installation instructions are provided by the equipment manufacturer.**

All listed electrical equipment shall be installed and used in strict accordance with the manufacturer’s listing and labeling, as required by CA Electrical Code (CEC) 110.3(B).

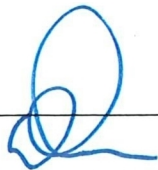
Any field-installed openings or additional knockouts that are not explicitly authorized by the manufacturer will be considered a violation of this policy and subject to correction and replacement of the panel.

If manufacturer approval is provided for a field-installed knockout, the following must be followed:

1. Verification shall be required that a listed knockout punch or tool was used. Rough drilling or cutting that compromises the panel’s finish, edge protection, or enclosure integrity will not be accepted.
2. Proper bushing or conduit connector protection shall be provided for all new openings.
3. The modification shall not compromise NEMA enclosure ratings (e.g., NEMA 3R, 4, or 12), bonding continuity, or conductor clearance within the panel.
4. The modification must not allow moisture intrusion or reduce the panel’s resistance to corrosion, impact, or environmental exposure.

ANALYSIS:

1. **Listing and Labeling Integrity:** Electrical panels are evaluated and listed under UL and NRTL standards. Unauthorized modifications void the listing and may create safety hazards.
2. **Code Compliance:** CEC/NEC 110.3(B) requires adherence to the manufacturer's listing and labeling instructions. Deviating from these instructions violates code and invalidates certification.
3. **Enclosure Protection:** Unauthorized openings can compromise NEMA-rated enclosures, leading to water intrusion, corrosion, or electrical faults.
4. **Bonding and Grounding:** Modifications may disrupt the continuity of metallic enclosures, affecting fault-current return paths and grounding reliability.
5. **Fire and Shock Hazards:** Sharp or improperly finished edges can damage conductor insulation, creating potential arcing or short-circuit risks.
6. **Inspection and Enforcement Consistency:** Requiring manufacturer documentation, proper tooling, and adherence to this policy ensures uniform enforcement across all projects and inspections.

Approved: David Dent <i>Deputy Director/Chief Building Official</i>	Signature: 
	Date: 3/4/22