



Panelboard Installation and Maintenance Manual

Industrial Electric Mfg™
48205 Warm Springs Blvd
Fremont CA 94539

dir 510.656.1600
fax 510.656.6250
www.iemfg.com

Tradition. Technology. Innovation.

INSTRUCTIONS FOR THE INSTALLATION, OPERATION, AND CARE OF PANELBOARDS

MOUNTING THE CABINET

The cabinet should be installed, leveled up and securely fastened to the mounting surface fastened to the mounting surface, utilizing all of the mounting holes provided in the panelboard cabinet. It is important that the cabinet be secured to a perfectly plane and even surface, or otherwise adjusted to keep the back of the panelboard true and plumb. Conduits can then be installed in the walls of the box through conduit openings or knock-outs provided for that purpose. After conduits are installed, all unused conduit openings should be closed to keep dust and moisture out of the panelboard cabinet. Wires should be pulled in the conduits and before installing the panelboard interior the cabinet should be inspected to see that none of the corrosion protection finish has been scratched off during installation. If it is scratched off, paint or protective coating should be applied to keep the cabinet from corroding in such places.

THE PANELBOARD INTERIOR

The panelboard interior should be kept in a clean, dry, normal temperature location at all times before installation. Panelboards are properly packed to withstand shipment and reasonable handling on the job before they leave the factory. Care should be exercised to avoid damage to the panelboard while unpacking.

After unpacking, and before installation in the cabinet, the panelboard should be carefully inspected to see that all connection and mounting screws are tight, as some might become loosened during shipment or handling after leaving the factory. The interior should then be installed and secured in place in the cabinet with the mounting means provided. Panelboards and cabinets are provided with adjustable mounting means to permit alignment of the panelboard, even though the cabinet may not be exactly flush.

The panelboard interior should then be connected, making sure that they wire are tightly secured in the terminals provided. After connecting, the wires should be neatly arranged in the gutters. It must be remembered that the wires in the gutters of the panelboard generate heat within the panelboard enclosure and, accordingly, unnecessary or excessive amounts of wiring in the panelboard gutters is a source of panelboard heating difficulties.

After the panelboard interior is connected, the cabinet should be carefully cleaned of cut ends of wire and foreign substances, and the door and trim immediately installed to protect the panelboard and wiring. If the building is not completed before the panelboard front is installed, heavy cardboard or other material should be used to protect the panelboard and its wiring from damage, dirt, and defacing during building construction. Before supplying electric power to the panelboard, all wiring should be checked and tested for grounds, short circuits, etc.

PANELBOARD FRONTS OR TRIMS

The panelboard front is shipped in packing designed to protect the front from damage during shipment and handling. Care should be used in unpacking the panelboard front, and before installing, any part of the paint or other protective finish of the panelboard front which might have been given to properly aligning and adjusting the cabinet front, both with the building and the panelboard interior before tightening the panelboard front securing means.

Keeping the panelboard clean during, as well as after, installation greatly aids satisfactory performance.

DIRECTORY

Panelboards are provided with cardholders or directories to designate the loads controlled by the various panelboard circuits. These directories or cardholders should be properly and neatly filled out, to permit ready location of circuit loads controlled by the panelboard.

CARE AND MAINTENANCE

Proper maintenance of panelboards requires periodic inspections. The satisfaction obtained from a panelboard is proportional to the care and maintenance given to it. Periodic inspection should be made to see that the panelboard is kept clean, free from dirt and moisture. Occasionally the connections between the panelboard unit parts and busbars, as well as connections between wires and panelboard unit parts should be checked and tightened where necessary. Fuse contacts should be inspected.

The panelboard is alternately heated and cooled as the current is turned on and off. This causes expansion and contraction of the parts of the panelboard, which added to vibration, usually present, tends to loosen fuses and connections. While care is exercised in the manufacture of the panelboards to provide means to compensate for these conditions, nevertheless, over a period of time loosening of parts will occur, requiring inspection and tightening to maintain good contact and avoid heating and other difficulties.