

Maintenance Task

<u>PM No.</u>	<u>Title</u>	<u>Frequency</u>
E84	PANEL, POWER DISTRIBUTION	EVERY THREE YRS

NOTE: THIS MAINTENANCE CHECKLIST INCORPORATES RCM PROCEDURE E-0004 (ELECTRICAL DISTRIBUTION). RCM PROCEDURE CM-0002 (QUALITATIVE INFRARED TESTING) IS TO BE COMPLETED IN CONJUNCTION WITH THIS MAINTENANCE CHECKLIST. REFER TO OBO RELIABILITY CENTERED MAINTENANCE MANUAL TABLE K-9.

MAINTENANCE TASK DESCRIPTION:

1. Inspect and Clean Electrical Panels.

SPECIAL INSTRUCTIONS:

1. Avoid electrical shock! Turn off electricity before working on the equipment.
2. De-energize, tag, and lock out all power supplies to ensure the power stays off.

DANGER: CHECK THAT CIRCUITS ARE DEAD BEFORE STARTING WORK. CHECK FOR PRESENCE OF CONTROL VOLTAGES OR VOLTAGE SOURCES OTHER THAN THE PRIMARY POWER SUPPLIES.

3. Schedule outage with operating personnel and affected offices.
4. Follow site safety procedures and your supervisor's instructions.
5. Record and report to your supervisor any equipment damage or deficiencies found during this maintenance task.
6. Record all test results in the component maintenance log.
7. Review manufacturer's operation and maintenance instructions.
8. All tests to conform with manufacturer's test procedures.

PROCEDURES:

1. Ensure unit is loaded to at least 40% of rated current and perform procedure CM-0002, Qualitative Infrared Thermography.
2. Verify that surge protectors are not indicating faulty circuits or blown fuses.
3. De-energize equipment and tag out in accordance with site safety practices.
4. Open electrical panels or doors.
5. Test to ensure all circuits are de-energized.
6. Inspect cables, connectors, terminal boards, and bus work for signs of excessive heating and/or insulation damage.
7. Inspect all exposed connections for secure mounting, corrosion, damaged insulators, and signs of moisture contamination.
8. Check loose connectors identified through infrared thermography inspection.
9. Torque connectors to specified value or, if unknown, maximum 25 in-lb. CAUTION - Do not over tighten connectors.
10. Inspect all exposed ground connections. Ensure connections are clean and tight. Treat with corrosion inhibitor.
11. Clean bus insulators.
12. Clean conductors, terminal boards, enclosures, and panels with vacuum cleaner.
13. Ensure heaters (if installed) are working correctly.
14. Make minor repairs. Contact supervisor if repairs are not possible. Note on work order.
15. Perform touchup painting as required.
16. Cycle circuit breakers open and closed. Ensure smooth operation.
17. Perform circuit test on GFCI breakers.
18. Perform related tasks, if any.
19. Remove tags and re-energized panel.
20. Reaccomplish CM-0002 to ensure problem areas have been corrected.
21. Close panels and doors and return panel to service.
22. Remove debris from work-site.

TOOLS, MATERIALS, AND EQUIPMENT:

Maintenance Task

1. Electrician's toolset.
2. Cleaning materials.
3. Vacuum cleaner.
4. Touch up paint.
5. Torque wrench.
6. Check CM-0002 for additional requirements.

ENGINEER'S NOTES:

Connector torque value, see specification SAE AIR1471. All values are + or - 12.5%.

BOLT SIZE	TORQUE VALUE
5/32-32	25 in-lb.
5/32-36	26 in-lb.
3/16-32	42 in-lb.
1/4-28	95 in-lb.
5/16-24	185 in-lb.
1/2-20	800 in-lb.