

Maintenance Procedure
No. P830

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TASK DESCRIPTION INSPECT DIODE FUSES, BRUSHES AND COLLECTOR RINGS. RENEW IF DEFECTIVE.
BUILDER'S OR VENDOR'S MAINTENANCE INSTRUCTIONS MPI LOCOMOTIVE MAINTENANCE MANUAL, SECTION 8
SPECIAL TOOLS REQUIRED:
RELATED MAINTENANCE PROCEDURES MODIFICATIONS, POINTERS, ETC.
SAFETY PRECAUTIONS: CONTRACTOR TO ASSUME RESPONSIBILITY FOR SAFETY RULES AND COMPLIANCE.
PREPARATION:

PROCEDURE

1. Inspect rectifier bank diodes for blown fuses. If the pin protrudes, the fuse should be replaced as follows:
 - 1.1 Remove bolt and unfasten diode lead. Check fuse continuity.

Note: *If multiple failures have occurred in a single group of diodes, or if repeated failures have been observed in a single group of diodes, isolate and check all diodes in the group.*
 - 1.2 Place continuity tester across negative bus and connecting rod, then switch the tester leads. This checks one of the diodes. If diode is good, the meter registers 10-20 ohms in one direction and above 30,000 ohms when leads are reversed.

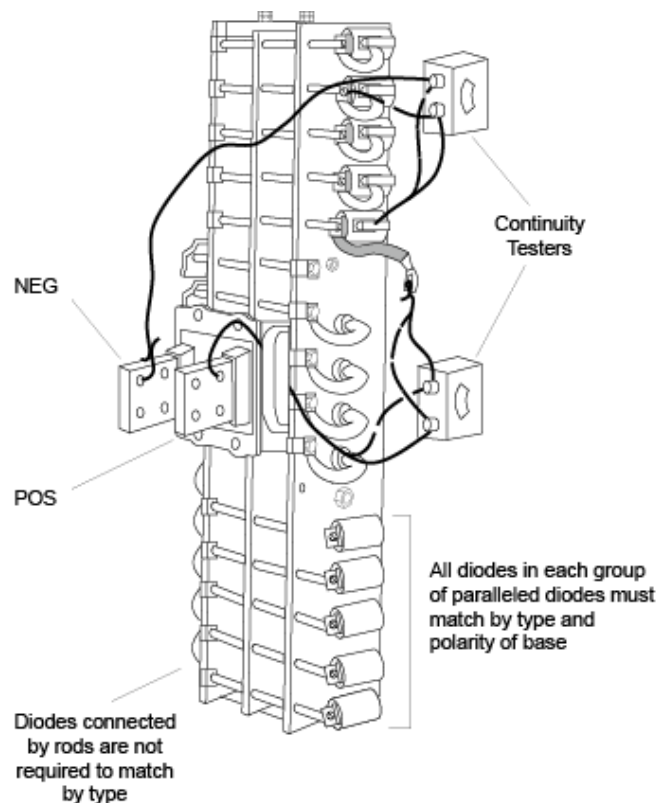
Note: *The 30,000 ohm value is for an individual diode isolated from the circuit and should register greater than 2,000 ohms.*
 - 1.3 Place continuity tester across positive bus and diode lead; then switch the tester leads. This checks the other diode.
 - 1.4 Replace blow fuse with a good fuse.
 - 1.5 Remove any defective diodes using a special diode wrench (EMD P/N 8361524).
 - 1.6 Wipe the diode mounting surface of the heat sink bus. Do not use abrasive material.

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- 1.7 Replace defective diodes with good diodes of identical type, polarity, and voltage class (or higher voltage class). Apply a thin coating of compound (EMD P/N 8346481) to the base of the diode hex to cover the surface. Do not apply on threads.
 - 1.8 With special diode wrench and a 0-50 ft-lb. torque wrench, torque diodes to 25 ft-lb. Make certain that the wrench is properly seated when torquing.
 - 1.9 Torque diode terminal lug bolts between 11-13 ft-lb.
 - 1.10 Replace and securely fasten all air box panels and inspection covers.
2. Inspect brushes condition, length and center.
 3. Inspect collector rings.



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