

Maintenance Procedure
No. MP820

Page 1 of 2

TASK DESCRIPTION SUPPRESSION SYSTEM INSPECTION
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

Note: An inspection of the commutation transient voltage suppression system should be made every time a faulty or failed diode is detected and replaced. The required inspection is basically visual

1. Check that all connections are tight and are electrically correct. If loose, tighten in accordance with applicable wiring diagram.
2. Examine all resistors for evidence of overheating and open turns. Any resistors that appear to be burned or damaged should be disconnected and continuity checked. Faulty resistors must be immediately replaced with qualified resistors.
3. Examine all capacitors for oil leaks or deformation of the container. The container top may be badly pushed out. If a capacitor is suspected faulty, it should be disconnected and checked with a 500 or 1,000 volt megger as follows:
 - a. Short circuit the capacitor terminals and connect the positive lead from the megger to the terminals. Connect the megger negative lead to the capacitor case, and rotate the megger handle. The reading should be 25 megohms or more. Disconnect the megger and shorting jump.
 - b. Connect one megger lead to one capacitor terminal and connect the other megger lead to the other capacitor terminal, and rotate the megger handle. If the capacitor is good, there will be a definite meter needle deflection toward zero (indicating capacitor charging current) followed by a drift toward infinity as the

DATE OF FIRST ISSUE	September 2007	AUTHORIZED BY:
REVISION 1	August 2009	TITLE: <div style="text-align: right; margin-top: 5px;">Manager, Rail Equipment</div>

Maintenance Procedure
No. MP820

Page 2 of 2

capacitor charges. Failure of the meter needle to deflect toward zero is an indication other than the capacitor is open internally. If the capacitor is shorted, the megger will indicate zero when the megger handle is rotated. If the capacitor is open, it will indicate infinity immediately upon rotating the handle, and the reading will drop to zero when the rotation of handle is stopped.



CAUTION

Carefully discharge the capacitor after the check by using a screwdriver with an insulated handle to short across the capacitor terminals.

DATE OF FIRST ISSUE	September 2007	AUTHORIZED BY: TITLE: Manager, Rail Equipment
REVISION 1	August 2009	