Coast Mountain Bus Company

TECHNICAL INSTRUCTION LETTER

TIL # 333 COACH 12/24 VOLTAGE DROP LIMIT SECTION: 7

Models Affected: ALL **Location: ALL**

The difference in voltage between the bus batteries and the bus bar in the front side compartment shall not exceed 1.0 VDC at nominal load. Any larger voltage drop depicts connection problems due to corroded, dirty or loose terminals at the batteries, battery shut-off switches, terminals at the side compartment or ground studs.

PROCEDURE:

1) Start the bus in Night Run Mode and switch on defroster blower to medium setting, to provide a load of approximately 30 – 35 amps on both 12 Volt and 24 Volt circuits.

2) Measure “12 Volt” voltage (and “24 Volt” voltage on all low floor coaches) directly on battery terminals with respect to the negative battery terminal connected to the chassis.

3) Measure “12 Volt” bus bar voltage (and “24 Volt” voltage on all low floor buses) at the front side compartment, with respect to the chassis ground connection in the side compartment.

4) Record the difference in voltages for the 12 Volt readings and the 24 Volt readings respectively.

5) Shut off the engine. Put master switch back into Night Run mode with defroster blowers on medium.

6) Repeat step 2.

7) Repeat step 3.

8) Repeat step 4 and switch off master switch.

EVALUATION:

Any voltage drops greater than 1.0 Volt in the 12 Volt or 24 Volt circuit require corrective action since any additional loads and discharging batteries will eventually create voltage supply problems for the bus radios, destination signs and fareboxes.

Known voltage drop “areas” are corroded or dirty battery terminals, battery switches, crimp terminals and grounding points. On articulated buses, loose ground strap crimps in the joint area have also contributed to the voltage drops.

Clean affected terminals and check tightness of crimps and their connections. Never adjust battery voltage regulator settings above 13.9 Volts (27.8 V on “24 Volt” system) due to chance of boiling batteries. Correct range is 13.6 V – 13.9 V (27.2 V – 27.8 V).

PREPARED BY	EFFECTIVE DATE	REVIEW/REVISED BY	REVISION DATE	MANAGER FLEET TECHNICAL SUPPORT	DIRECTOR FLEET MANAGEMENT	REVIEW DATE
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