

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST B: CHARGING SYSTEM TEST — IAR GENERATOR

TEST STEP	RESULT	ACTION TO TAKE
B1 PRELIMINARY CHECKS		
<ul style="list-style-type: none"> ● Preliminary Checks: <ul style="list-style-type: none"> — Fuse link — Battery terminals and cable clamps — Wiring and ground connections to generator, regulator and engine — Generator belt tension ● Are components OK? 	Yes No	GO to B2. SERVICE and/or REPLACE as necessary. GO to B2.
B2 BASE VOLTAGE AND NO LOAD TEST		
<ul style="list-style-type: none"> ● Connect voltmeter to battery posts. Read battery voltage — this is base reading. ● Start engine, run at 1500 rpm with no electrical load. Voltage should increase but not more than 3 volts. ● Does voltage increase more than 3 volts? 	No No increase Yes	GO to B3. GO to B5. GO to B12.
B3 LOAD TEST		
<ul style="list-style-type: none"> ● Increase engine speed to 2000 rpm. ● Turn heater-A/C blower and headlamps on HIGH. ● Is voltage a minimum of 0.5 volt over base voltage? 	Yes No	GO to B4. GO to B5.
B4 BATTERY DRAIN TEST — KEY OFF		
<ul style="list-style-type: none"> ● Concern can still be battery drain. Turn OFF ignition, install test lamp in series with positive battery cable and check to isolate problem circuit. ● Is there a battery drain? 	Yes No	CHECK vehicle circuits for drain. REFER to Section 14-01.
B5 UNDER-VOLTAGE TEST		
<ul style="list-style-type: none"> ● Disconnect regulator. ● Check resistance between regulator 'A' and 'F' terminals on regulator. ● Is resistance more than 2.4 ohms? 	Yes No	GO to B6. CHECK generator for shorted field circuit and REPLACE generator assembly if required. If generator is OK, REPLACE regulator. GO to B2.
B6 'A' TERMINAL VOLTAGE CHECK		
<ul style="list-style-type: none"> ● Reconnect regulator. ● Measure 'A' terminal voltage. ● Is there battery voltage? 	Yes No	GO to B7. SERVICE 'A' circuit wiring.
B7 'F' TERMINAL VOLTAGE CHECK — IGNITION OFF		
<ul style="list-style-type: none"> ● Voltage regulator connected. ● Key OFF. ● Measure regulator 'F' terminal voltage with ignition off. ● Is there battery voltage? 	Yes No	GO to B8. REPLACE generator assembly. GO to B2.
B8 'F' TERMINAL VOLTAGE CHECK — IGNITION ON		
<ul style="list-style-type: none"> ● Turn ignition to RUN position (engine not running). ● Measure regulator 'F' terminal voltage. ● Is voltage more than 1.5 volts? 	Yes No	GO to B9. GO to B10.
B9 'I' CIRCUIT TESTS		
<ul style="list-style-type: none"> ● Perform 'I' circuit tests. ● Is circuit OK? 	Yes No	REPLACE regulator. GO to B2. SERVICE 'I' circuit wiring. GO to B2.
B10 JUMPED LOAD TEST		
<ul style="list-style-type: none"> ● Repeat Load Test measuring voltage to generator Battery Positive Voltage (B+) output terminal from battery negative clamp. ● Does voltage rise 0.5 volt or more? 	Yes No	SERVICE generator to starter relay wiring. GO to B2. GO to B11.