



NOTICE

A9-4039 and A9-4050 harness is optional equipment that can be used with many CEN 14 V or 28 V regulators having the additional 5-pin round temperature/voltage sense connector. Contact CEN for regulator selection.

- When A9-4039 or A9-4050 temperature/voltage sense harness **is not** connected, regulator will operate in fixed voltage setting determined by the select switch position on the bottom of the regulator. See separate instructions with regulator.
- When A9-4039 or A9-4050 temperature/voltage sense harness **is** connected, regulator will automatically optimize the charge voltage for battery type based on temperature. See column 2 in Table 1 and select switch position based on battery type.

1. Remove hardware from regulator, turn regulator over and select appropriate switch position (See NOTICE above and Table 1 and Figure 1).
2. Reinstall regulator on alternator in the same position as the previous regulator or in remote location per vehicle manufacturer. Use screws and washers (if supplied). On alternator, torque regulator mounting screws to 8.5 Nm/75 lb. in.
3. Install temperature/voltage sense harness:
 - a. Remove cap from regulator and plug harness connector into 5-pin connector.
 - b. Harness length varies, but long enough to reach battery compartment in most vehicles. Unused harness length should be coiled up. Use cable ties every 12-14 inches to securely support harness between regulator and battery compartment. If harness length must be shortened:
 - 1) Black wire—Do not shorten unless absolutely necessary. If necessary, cut off first 6 inches on terminal end and save cut piece to reattach. Cut length off of remaining black wire. Crimp and solder two ends and seal with insulated butt splice.
 - 2) Red wire—cut to desired length and use terminal to connect.

- 3) Attach terminal from black wire in harness to battery negative post and terminal from red wire to 14V battery positive post for 14 V systems or 28 V battery positive post for 28 V systems.
- c. A9-4050 harness has two additional wire connections for regulators requiring external ignition feed or D+ voltage sense/reference signal. See Figure 2.
 - 1) Green wire (D+)—Connect splice to vehicle voltage sense/signal wire. If terminal is used to run relay, the relay coil must be diode protected and rated for proper voltage. Crimp spliced end securely. Use heat gun to seal splice. D+ terminal provides 5 amps of 14 V or 28 V output.
 - 2) Brown wire (IGN)—Connect splice to switched voltage source from vehicle. Crimp end securely. Use heat gun to seal splice.

4. Verify all electrical and mechanical connections to regulator are tight.

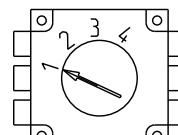


Figure 1

Switch Position	A9-4039/A9-4050 Harness Connected (Battery Type) See NOTICE above
Position 1	Maintenance (D Category)
Position 2	Maintenance-Free (Group 31)
Position 3	AGM
Position 4	DO NOT USE POSITION #4

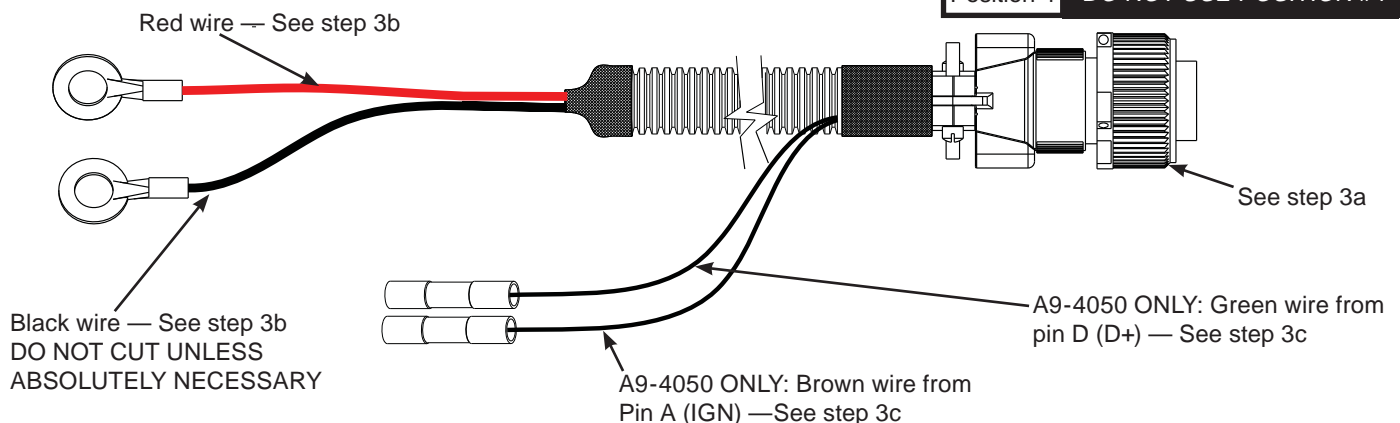


Figure 2 – A9-4039 and A9-4050 Temperature/Voltage Sense Harness Connections