



Installed C626 alternators with an A2-141 voltage regulator and Metri-Pack alternator-to-regulator harness can be retrofitted with an A2-342 voltage regulator. The A2-342 regulator is a smart regulator that includes overvoltage cutout (OVCO) functionality. When used with a temperature/voltage sense/J1939 harness (supplied separately), the A2-342 also optimizes charge voltage based on battery temperature and interfaces with a CAN communications network.

This kit contains:

- One A2-342 smart regulator with attaching hardware
- One A9-4077 adapter harness
- One A4-037 Harness support bracket

To fit a C626 alternator with an A2-342 regulator, perform the steps in the following procedure.

**1. Remove the A2-141 Regulator:**

- a. Disconnect C626 alternator-to-regulator harness from A2-141 regulator.
- b. Disconnect wires from IGN, D+, and P terminals on A2-141 regulator and engine.
- c. Remove mounting screws and A2-141 regulator from mounting bracket.

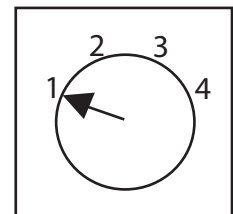
**2. Install the A2-342 Regulator:**

**NOTICE**

The A2-342 regulator can be used with or without a separately supplied temperature/voltage sense/J1939 harness.

- If a temperature/voltage sense/J1939 harness is not connected to A2-342 regulator, the regulator operates at a fixed voltage determined by the select switch position on the bottom of the regulator. See column 2 in Table 1 below.
- When a temperature/voltage sense/J1939 harness is connected to A2-342 regulator, the regulator automatically optimizes charge voltage for battery type, based on temperature. See column 3 in Table 1 and set switch position to match battery type.

Switch Position	Voltage	Battery Type
Position 1	27.5 V	Maintenance (D Category)
Position 2	28.0 V	Maintenance (D Category)
Position 3	28.5 V	Maintenance-Free (Group 31)
Position 4	29.0 V	AGM
<b>DO NOT USE POSITION #4</b>		



**Figure 1: Voltage Selection Switch**

- a. Turn regulator over and set the voltage selection switch to the position that is appropriate for the type of battery being used. See Table 1 and Figure 1 above.
- b. Install A2-342 regulator in mounting bracket, using the supplied mounting screws. Torque mounting screws to 8.5 Nm/75 lb. in.

### 3. Install A4-037 Metri-Pack Harness Support Bracket on C626 Alternator:

- a. Remove top two screws from control unit cover plate on C626 alternator. See Figure 2.

**NOTICE**

*Only remove top two screws on control unit cover plate. Do not remove control unit cover plate.*

- b. Align holes in A4-037 bracket with screw holes in control unit cover and install screws removed in step a. Torque screws to 3.39 - 3.95 Nm/ 30 - 35 lb. in.
- c. Slide alternator-to-regulator harness into slot in A9-037 bracket so Metri-Pack connector lies flat on bracket.
- d. Insert tie wrap (not provided) through holes in bracket and pull tight to secure Metri-Pack connector to bracket.

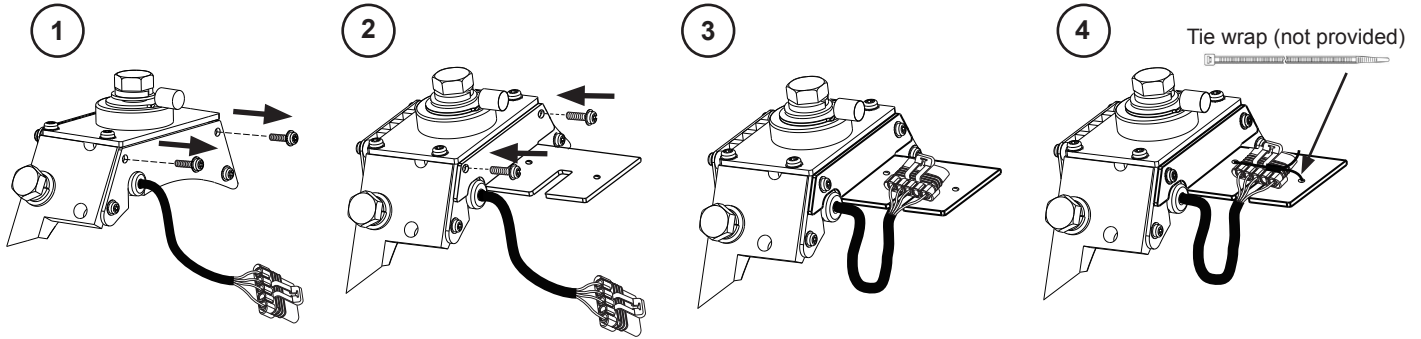


Figure 2: A4-037 Harness Support Bracket Installation

### 4. Connect C626 Alternator to A2-342 Regulator:

- a. Connect Metri-Pack connector on C626 regulator-to-alternator harness to A9-4077 adapter harness and connect other end of A9-4077 harness to 6 pin connector on A2-342 regulator. See Figures 3 and 5.
- b. Connect temperature/voltage sense/J1939 harness (sold separately) to 10 pin connector on regulator. See Figures 4 and 5.
- c. If J1939 network used, connect 3 pin Deutsch connector on temperature/voltage sense harness to vehicle J1939 vehicle connector. If J1939 network is not used, secure 3 pin Deutsch connector with tie wraps.

**NOTICE**

*All cables and wiring must be supported by cable clamps within 300 mm (12 in.) of termination points to provide strain relief and prevent damage to wire terminals.*

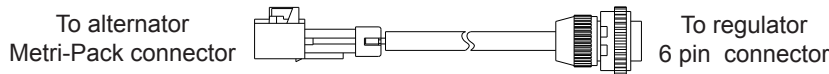


Figure 3: A9-4077 Adapter Harness

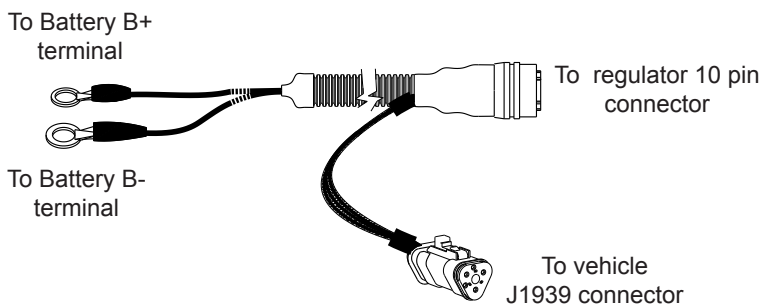


Figure 4: Temperature/Voltage Sense/J1939 Harness (sold separately)

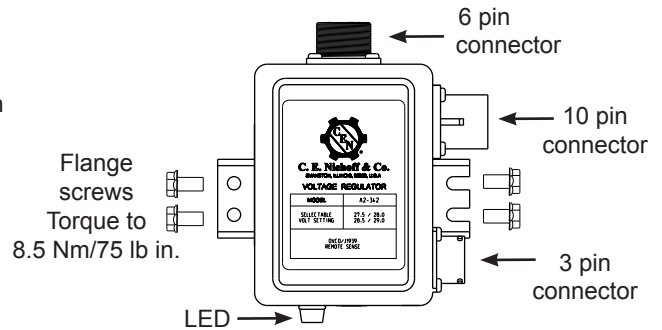


Figure 5: A2-342 Regulator Connections