

Charging System 812FJ

Student Manual

Charging System

Activity 5

Charging System Removal and Installation Procedures

Performance Objectives:

- Review the removal and installation of Charging System components.

Tools and Materials:

- Live vehicle (if available)
- Starting and Charging Tester with inductive ammeter and carbon-pile load (VAT 40 or equivalent)

References:

- 2003 Chevrolet Impala Service Manual Information

Service Manual Information:

- Generator Replacement is found on page 14 of the Service Manual Information. Review this procedure.
 1. Technician A says that the 2003 Chevrolet Impala generator is field-serviceable, and that internal generator parts can be replaced as necessary. Technician B says that the 2003 Chevrolet Impala generator is serviced as a complete unit only.. Which Technician is correct?
 - a. Technician A only
 - b. Technician B only
 - c. Both Technician A and Technician B are correct
 - d. Neither Technician A nor Technician B is correct
 2. According to this procedure, the first step of generator removal is:
 - a. Remove the engine compartment cross vehicle brace.
 - b. Disconnect the negative battery cable.
 - c. Reposition the coolant recovery reservoir aside for access.
 - d. Remove the drive belt from the generator.
- Drive Belt Replacement is found on page 11 of the Service Manual Information. Review this procedure.
 3. According to this procedure, which pulley should have the drive belt installed to it last?
 - a. Crankshaft pulley
 - b. A/C Compressor pulley
 - c. Water Pump pulley
 - d. Generator pulley
 4. The Important note in the installation procedure emphasizes:
 - a. Making sure the mark on the drive belt tensioner is in range, as indicated on the tensioner housing.
 - b. Rotating the drive belt tensioner.
 - c. Removing the drive belt.
 - d. Installing the drive belt.

Conclusion:

Service Manual removal and installation procedures save you time and unnecessary removal of parts. Possible damage to system components can also be avoided by carefully following these procedures.

Complete the In-Shop Worksheet at this time.

In-Shop Worksheet

Activity 5

Charging System Removal and Installation Procedures

Tools and Materials:

- Live vehicle
- Starting and Charging Tester with inductive ammeter and carbon-pile load (VAT 40 or equivalent)
- Service Information - for your live vehicle, locate the procedures for:
 - Generator and drive belt removal and reinstallation
 - Charging System Test

Procedures:

- Following the step-by-step service information procedure, remove the drive belt and generator from the live vehicle. Check off each step as you perform it.
- Follow the step-by-step service information procedure to reinstall both of these items. Check off each step as you perform it.
- Following the step-by-step service information procedure, test the charging system and insure that it is working properly.

1. Did you successfully remove and reinstall these items?
 - a. Yes
 - b. No

2. Did the charging system work properly after generator and belt reinstallation?
 - a. Yes
 - b. No

Conclusion:

Removal and installation procedures for Charging System components are found in the Service Manual Information. Following these procedures can save time and unnecessary removal of parts.

