



WORKSHEET 5-4

Charging System Voltage Drop Tests

Vehicle	Year/Prod. Date	Engine	Transmission

Worksheet Objectives

In this worksheet, you will practice performing voltage drop tests in the charging system. When you have completed this module, you should be able to test the positive and negative sides of the charging circuit for voltage drops.

Tools and Equipment

For this exercise you will need the following:

- EWD
- Repair Manual
- Vehicle
- Digital multimeter (DMM)

Exercise 1: Voltage Drop on the Positive Side of the Battery

1. Connect the red meter lead to Terminal B on the alternator.
2. Connect the black meter lead to the positive battery terminal.
3. Start the engine; adjust engine speed to 2,000 RPM.
4. Record the voltage reading here: _____ volts.
5. Is the voltage drop less than 0.2 volts? ____ Yes ____ No

What should you look for if the reading is higher?

Exercise 2: Voltage Drop on the Negative Side of the Battery

6. Keep the engine running at 2,000 RPM.
7. Connect the red meter lead to the negative (ground) battery terminal.
8. Connect the black meter lead to the alternator frame.
9. Record the voltage reading here: _____ volts.
10. Is the voltage drop less than 0.2 volts? ____ Yes ____ No
11. What should you look for if the reading is higher?

Charging System Voltage Drop Tests

Name: _____ Date: _____

Review this sheet as you are doing the Charging System Voltage Drop Tests worksheet. Check each category after viewing the instructor's presentation and completing the worksheet. Ask the instructor if you have questions regarding the topics provided below. Additional space is provided under topic for you to list any other concerns that you would like you instructor to address. The comments section is provided for your personal comments, information, questions, etc.

I have questions

I know I can

Topic	Comment		
Voltage Drop Test			



Notes