

# Cranking Circuit Voltage-Drop Test

**Meets NATEF Task:** (A6-C-2) Perform starter circuit voltage drop; determine necessary action. (P-1)

Name \_\_\_\_\_ Date \_\_\_\_\_ Time on Task \_\_\_\_\_

Make/Model/Year \_\_\_\_\_ VIN \_\_\_\_\_ Evaluation: 4 3 2 1

\_\_\_\_\_ 1. Set the digital multimeter to DC volts.

**HINT:** A voltmeter measures the difference in electrical pressure between the test leads. When the meter leads are connected to two locations and the engine is cranked, the meter will display the difference in voltage between the two points. This difference is called the voltage drop.

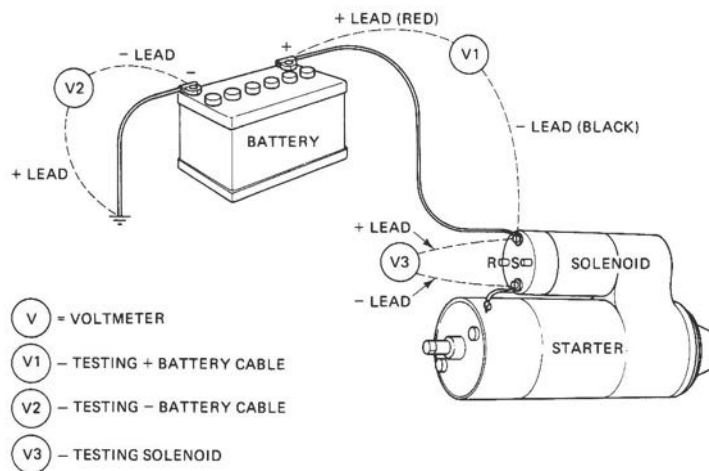
\_\_\_\_\_ 2. Disable the ignition system or the fuel injection system to keep the engine from starting.

\_\_\_\_\_ 3. Crank the engine and observe the voltmeter.

\_\_\_\_\_ 4. Test the positive cable from the battery post to the solenoid = \_\_\_\_\_ volts.

\_\_\_\_\_ 5. Test the solenoid between the "B" battery post and the "M" (motor) terminal = \_\_\_\_\_ volts.

**RESULTS:** \_\_\_\_\_ **ALL OK** \_\_\_\_\_ **NOT ALL OK**



\_\_\_\_\_ 6. Based on the test results, what is the necessary action? \_\_\_\_\_