

Starter Solenoid Testing

Meets NATEF Task: (A6-C-5) Inspect and test switches of starter control circuit, determine necessary action. (P-2)

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

_____ 1. Clean and visually inspect the starter solenoid for physical damage.

OK _____ NOT OK _____

_____ 2. Carefully remove the two retaining screws and the retaining nuts from the “M”, “S”, and “R” (if used) terminals.

_____ 3. Carefully remove the plastic end cap.

_____ 4. Visually check all solenoid parts for excessive wear or damage.

OK _____ NOT OK _____

_____ 5. Set a digital multimeter (DMM) to read ohms (low scale) and check the hold-in coil and the pull-in coil.

Pull-in coil. Measure between terminals “S” and “M”:

resistance = _____ (should be 0.2 to 0.4 ohm) OK _____ NOT OK _____

Hold-in coil. Measure between terminals “S” and the solenoid housing:

resistance = _____ (should be 0.4 to 0.6 ohm) OK _____ NOT OK _____

_____ 6. Carefully reassemble the solenoid.

_____ 7. Test the pull-in winding by applying 12 volts to terminal “S” and ground to terminal “M.” Check that the plunger will be drawn into the solenoid.

CAUTION: The plunger will be drawn in with great force, so keep your fingers away from between the plunger and the solenoid housing.

OK _____ NOT OK _____

_____ 8. Check the hold-in winding by connecting 12 volts to terminal “S” and the other wire to ground. The plunger should be drawn into the solenoid housing.

OK _____ NOT OK _____

_____ 9. Based on the test results, what is the necessary action? _____
