

Starter Relays and Solenoids

Meets NATEF Task: (A6-C-3 and A6-C-5) Inspect and test starter relays, solenoids, connections, and wires; 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 and/or relay for physical damage.

OK _____ NOT OK _____

_____ 2. 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 _____

_____ 3. 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.

OK _____ NOT OK _____

_____ 4. 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 _____

_____ 5. Measure coil resistance of the relay (terminals 86 and 85).

Resistance = _____ ohms
 (should be 60 to 100 ohms)

OK _____ NOT OK _____

_____ 6. What is the necessary action?

