

A6/U6/L2 STARTING SYSTEM

JSA6C5 Starter Switches, Wires, Connectors

Name: _____ Start Date: _____
End Date: _____
Make: _____ Model: _____ Year: _____
VIN: _____ Mileage: _____

LEARNING OBJECTIVE/NATEF TASK



- Inspect and test switches, connectors, and wires of starter control circuits; perform necessary action.
NATEF TASK A6/C5, P2. ICS160, 166

MATERIALS

Classroom Vehicle (s), OEM service information, Fender Covers, Digital Multimeter (DMM), jumper wires

PROCEDURE

- Wear Safety Glasses for this entire procedure.
- Review Lesson 2 in UNIT 6 of the A6 Course. Locate in the OEM service information the procedure for testing switches, wires, and connectors of the starting circuit and the wiring diagram for vehicle you are using. Submit this procedure and wiring diagram to your instructor or mentor for approval.

Your Instructor **MUST** stamp or initial the box to the right before you can proceed with this job sheet.



1. Disable the ignition system to prevent the vehicle from starting. On this type of ignition system how did you prevent the engine from starting?

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2. Connect the red lead of the DMM to the positive terminal of the battery and the black lead to the ignition switch terminal at the starter solenoid or starter relay. Crank the engine and observe the voltage drop reading. What voltage drop did you read? _____

3. What did you conclude from this voltage drop test?

6. Normally, if you were diagnosing a system and you measured less than 0.1 volts during the last test, you would stop there and move on to testing another part of the starting system. For the Purposes of this job sheet, proceed through the rest of the procedure.

7. Connect the voltmeter across the following circuits and record the voltage reading while the engine is being cranked.

a. **Battery (or fuse block) to ignition switch:** _____ volts

b. **Input to output of the ignition switch:** _____ volts

c. **Output of ignition switch to starting safety switch**
input: _____ volts

d. **Input of starting safety switch to output:** _____ volts

e. **Output of starting safety switch to solenoid or**
relay: _____ volts

8. A reading of more than 0.1 volt across anyone wire or switch usually indicates a problem. If a high reading is obtained across a starting safety switch used on automatic transmissions, check the adjustment of the switch according to OEM service information.

TASK SUMMARY

• Now that you have completed this NATEF task, can you think of anything (tools, information, knowledge etc.) that would have made this task easier.

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- List a customer complaint together with the cause determined by this diagnostic/inspection task that might appear on a work order, and then list the NATEF Task CORRECTION you would use to resolve the complaint.

COMPLAINT: _____

1. Perform Checks/Inspect: _____

2. Referencing Bulletin: _____

CAUSE: _____

1. Diagnosis: **USED THIS NATEF DIAGNOSIS TASK**

2. Operating as designed: _____

3. Cause identified as: _____

CORRECTION: _____

1. Other Correction: _____

2. Correction Verified By: _____

Use this Rubric to RATE the completion of Job Sheet

1 = Demonstrated exposure/observation of the competency

2 = Applies the competency but only mastered a few essential attributes of the competency

3 = Capable of the competency but needs further practice

4 = Performs the competency satisfactorily

5 = MASTERED the competency



Instructor _____ **Mentor** _____