

CDX Tasksheet Number: MHT5A006

Student/Intern Information

Name _____ Date _____ Class _____

Vehicle, Customer, and Service Information

Vehicle used for this activity:

Year _____ Make _____ Model _____

Odometer _____ VIN _____

Materials Required

- Vehicle with possible electrical concerns
- Vehicle manufacturer's repair information, including schematic wiring diagrams
- Digital multimeter (DMM)
- Vehicle/component lifting equipment, if applicable

Task-Specific Safety Considerations

- Activities require you to measure electrical values. Always ensure that the supervisor/instructor checks test instrument connections prior to connecting power or taking measurements. High current flows can be dangerous; avoid accidental short circuits or grounding a battery's positive connections.
- Activities may require test-driving the vehicle on the school grounds or on a hoist, both of which carry severe risks. Attempt this task only with full permission from your supervisor/instructor, and follow all the guidelines exactly.
- Lifting equipment and machines such as vehicle jacks and stands, vehicle hoists, and engine hoists are important tools that increase productivity and make the job easier. However, they can also cause severe injury or death if used improperly. Make sure you follow the manufacturer's operation procedures. Also make sure you have your supervisor's/instructor's permission to use any particular type of lifting equipment.
- Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with federal, state, and local regulations.
- Always wear the correct protective eyewear and clothing and use the appropriate safety equipment, as well as wheel chocks, fender covers, seat protectors, and floor mat protectors.
- Make sure you understand and observe all legislative and personal safety procedures when carrying out practical assignments. If you are unsure of what these are, ask your supervisor/instructor.

► **TASK** Measure parasitic (key-off) battery drain; determine needed action.

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Student Instructions: Read through the entire procedure prior to starting. Prepare your workspace and any tools or parts that may be needed to complete the task. When directed by your supervisor/instructor, begin the procedure to complete the task and check the box as each step is finished.

Time off _____

Time on _____

Total time _____

Note: This tasksheet will require the use of a vehicle or simulator with an electrical fault. Ask your supervisor/instructor which vehicle or simulator you are to use. Be sure to follow the correct steps for connecting your DVOM to check for amperage/current flow. Have your supervisor/instructor check your connections. Improper connection of the DVOM may damage your meter.

Procedure:	Step Completed
1. Using the appropriate service information, research key-off battery drain (parasitic drain) checks. (Note: Parasitic drain is current draw that is present when the key is in the off position. Too much current draw can drain the vehicle's battery over a period of time.)	<input type="checkbox"/>
2. Determine the maximum key-off battery drain (parasitic drain) for the vehicle/simulator that has been assigned to you.	
a. Maximum drain: _____ mA	<input type="checkbox"/>
3. List the appropriate steps to check for key-off battery drain (parasitic drain) for the vehicle/simulator that has been assigned to you:	<input type="checkbox"/>
4. Using the steps listed, check the key-off battery drain (parasitic drain) for the vehicle/simulator that has been assigned to you.	
a. Maximum drain: _____ mA	<input type="checkbox"/>
b. Within manufacturer's specifications: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
5. If the reading is more than the allowable maximum drain, determine what is causing the excessive drain.	
a. List any item(s) that you found at fault:	<input type="checkbox"/>
6. Use the appropriate service procedures to determine the necessary repair(s). List any repairs:	<input type="checkbox"/>

7. Return the vehicle/simulator to its beginning condition, and return any tools you used to their proper locations.	<input type="checkbox"/>
8. Discuss your findings with your supervisor/instructor.	<input type="checkbox"/>

Non-Task-Specific Evaluations:	Step Completed
1. Tools and equipment were used as directed and returned in good working order.	<input type="checkbox"/>
2. Complied with all general and task-specific safety standards, including proper use of any personal protection equipment.	<input type="checkbox"/>
3. Completed the task in an appropriate time frame (recommendation: 1.5 or 2 times the flat rate).	<input type="checkbox"/>
4. Left the workspace clean and orderly.	<input type="checkbox"/>
5. Cared for customer property and returned it undamaged.	<input type="checkbox"/>

Student signature _____ Date _____

Comments:

Have your supervisor/instructor verify satisfactory completion of this procedure, any observations made, and any necessary action(s) recommended.

Evaluation Instructions: The scoring box below is intended to act as a guide for both student and supervisor/instructor. Each criterion listed will help students to understand what is expected of them and help supervisors/instructors articulate the level of success at a particular task. The scoring is set up to allow a second attempt at each task (see the Test and Retest columns). Scoring is also designed to award students points only for task criteria that were completed correctly. Points are lost for failure to complete the employability requirements (see Non-Task-Specific Evaluation criteria). When all criteria are evaluated, tally the points for a total at the bottom of each column.

Tasksheet Scoring

	Test		Retest	
Evaluation Items	Pass	Fail	Pass	Fail
Task-Specific Evaluation	(1 pt)	(0 pts)	(1 pt)	(0 pts)
Student used the appropriate service information to determine the maximum key-off battery drain.				
Student properly measured parasitic (key-off) battery drain and determined any necessary actions.				
Student used the appropriate service procedures to determine the necessary repair(s).				
Student reinstalled all removed components undamaged and in working order.				
Non-Task-Specific Evaluation	(0 pts)	(-1 pt)	(0 pts)	(-1 pt)
Student successfully completed at least three of the non-task-specific steps.				
Student successfully completed all five of the non-task-specific steps.				
Total Score: <total # of points/4 = %>				

Supervisor/Instructor:

Supervisor/instructor signature _____ Date _____

Comments:

Retest supervisor/instructor signature _____ Date _____

Comments: