

CDX Tasksheet Number: MHT5D007

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 alternator concern, including cable, wiring, or connector faults
- Vehicle manufacturer's workshop materials
- Digital volt-ohmmeter (DVOM); ammeters; and alternator testing equipment, such as load banks and oscilloscope
- Exhaust hoses
- Personal protection equipment (PPE)

Task-Specific Safety Considerations

- Activities may require running the engine and managing an environment of rotating equipment and large current draw, which carry severe risks. Attempt this task only with full permission from your supervisor/instructor, and follow all the guidelines exactly.
- Ensure that your supervisor/instructor checks the connectors of any test equipment.
- Do not run the alternator without a load connected or allow the output voltage to exceed the manufacturer's specified maximum.
- Use extreme caution when working around batteries. Immediately remove any electrolyte that may come in contact with you. Electrolyte is a mixture of sulfuric acid and water. Batteries may produce explosive mixtures of gas containing hydrogen; avoid creating any sparks around batteries. Consult with the shop safety and emergency procedures when working with or around batteries.
- 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** Remove, inspect, and/or replace generator (alternator).

MTST
V.D.7; P1

Time off _____

Time on _____

Total time _____

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.

Procedure:	Step Completed
1. Locate "Remove and Replace Generator (Alternator)" in the appropriate service information for the vehicle you are working on.	
List the steps outlined in the service information to remove the alternator:	<input type="checkbox"/>
2. Remove the alternator as per the service information.	<input type="checkbox"/>
3. List the steps outlined in the service information to install the alternator:	<input type="checkbox"/>
4. Install the alternator as per the service information.	<input type="checkbox"/>
5. Start the vehicle and check the alternator output and voltage.	
a. Voltage output: _____ volts	<input type="checkbox"/>
b. Amperage output: _____ amps	<input type="checkbox"/>
6. Return any tools you used to their proper locations.	<input type="checkbox"/>
7. 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 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 research alternator removal and replacement.				
Student properly removed and reinstalled the alternator per the service information.				
Student tested the alternator and compared results to the manufacturer's specifications, then determined any necessary actions.				
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: