

Specification of Competency Standards
for the Automotive Industry
Unit of Competency

Functional Area - Vehicle Servicing

Title	Check and repair vehicle battery, charging and starting systems
Code	108651L2
Range	This unit of competency is applicable in vehicle servicing workshops. Practitioners should be able to check the condition of vehicle battery; testing and repairing vehicle charging and starting systems safely according to the instructions in the vehicle manufacturer's servicing manual. They should also be able to conduct basic tests on components upon completion of work and providing written report.
Level	2
Credit	3 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Knowledge (Structure and basic operating principles of battery, charging, electric supply and starting systems)</p> <ul style="list-style-type: none"> • Understand the structure and basic operating principles of battery, charging, electric supply and starting systems. • Understand the specification, maintenance and safety rules of battery and the methods of handling battery. • Understand basic electric power transfer and the principle of power generation. • Know about general electric tools and instruments. • According to the instructions in the vehicle manufacturer's servicing manual, understand the general checking and repairing procedure for battery, charging, electric supply and starting systems. • Understanding of the relevant legal requirements on road and vehicle safety and environment protection. <p>2. Performance (Check and repair vehicle battery, charging, electric supply and starting systems)</p> <ul style="list-style-type: none"> • According to the instructions in the vehicle manufacturer's servicing manual and the requirements of occupational safety and health as well as that of environmental protection, safely inspect and repair vehicle battery, charging, electric supply and starting systems, including: <ul style="list-style-type: none"> ○ Capable of identifying the common faults in vehicle battery, charging, electric supply and starting systems by visual inspection ○ Use specified tools or instruments to inspect and measure the value of specific gravity of lead acid battery and the effectiveness of electric discharge; and carry out appropriate maintenance work ○ Replace battery ○ Handle and dispose battery in accordance with environmental protection ordinances • Check and repair the parts/components of vehicle charging, electric supply and starting systems as well as circuit control components, including dismantle, replace and re-assemble relevant system components. • Conduct performance and safety inspection after the work and provide written report focusing on: <ul style="list-style-type: none"> ○ Abnormalities ○ Measured data ○ Major decisions

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Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are that the practitioner being assessed shall prove that he/she is:</p> <ul style="list-style-type: none">• Capable of checking and repair general vehicle battery, charging and starting systems safely according to the instructions in the vehicle manufacturer's servicing manual;• Capable of conducting basic tests on components upon completion of work and providing written report;• Capable of charging and handling (including disposing of) battery in accordance with the requirements of the Occupational Safety and Health Ordinance and environmental protection ordinances.
Remark	<p>The credits value of this unit of competency is set on the presumption that the practitioner concerned has already possessed basic knowledge of vehicle electrical systems servicing.</p>