Specification of Competency Standards
for the Automotive
Unit of Competency

Functional Area - Vehicle Servicing

Title	Check and repair mechanical breakdown and damage on electrified vehicles
Code	111699L3
Range	This unit of competency is applicable in vehicle service workshops. Practitioners should be able to carry out mechanical breakdown and damage on electrified vehicles safely according to the instructions in the corresponding vehicle manufacturer's service manual and the relevant requirements on road and vehicle safety, environment, occupational safety and health regulations. They should also be able to handle potential hazards and conduct basic tests on components, and provide written report upon completion of work.
Level	3
Credit	5 *(For Reference Only)*
Competency	**Performance Requirements** 1. Knowledge (Hazards with mechanical breakdown and damage on electrified vehicles, including fuel cell electric, electric and hybrid electric vehicles, and associated preventive measures) • According to the instructions in the corresponding vehicle manufacturer's service manual, identify the potential risks and hazards associated with mechanical breakdown and damage for the electrified vehicle, such as imperfection or loosening cable harness, damaged hardware, low efficiency or inoperative cooling system, etc. • Familiar with preventive measures associated with the potential risks and hazards. • Master the use of special service tools, personal protection and first-aid equipment for relevant tasks. • Understanding of the relevant legal requirements on road and vehicle safety, and environmental protection. 2. Performance (Repair of mechanical breakdown and damage on electrified vehicle, including but not limited to the power transmission, bodywork and chassis systems) • According to the instructions in the corresponding vehicle manufacturer's servicing manual and the requirements of occupational safety and health as well as that of environmental protection, safely process the checking and repairing of mechanical breakdown and damage of electrified vehicles, including but not limited to: ◦ Collect the associated service information for identifying related potential risks and hazards ◦ Check and rectify the failure items, such as the cable harness, hardware, cooling system, etc., on the basis of preventive measures • Conduct performance and safety inspection after the work and provide written report focusing on: ◦ Abnormalities ◦ Measurement data ◦ Major decisions
Assessment Criteria	The integrated outcome requirements of this unit of competency are that the practitioner being assessed shall prove that he/she is: • Capable of working on the repair of mechanical breakdowns and damage to electrified vehicles, including fuel cell electric, electric and hybrid electric vehicles, safely according to the instructions in

	the corresponding vehicle manufacturer's service manual and the relevant requirements on road and vehicle safety, environmental protection, occupational safety and health regulations, after the system power-down is confirmed by the checking result of special service tools/authorised competent person; and • Capable of conducting basic tests on components and providing written report upon completion of repair.
Remark	The credit value of this unit of competency is set on the presumption that the practitioner concerned already possesses good knowledge of the construction and operation of electrified vehicles. The practitioner concerned should be a recognised competent person in electric-drive vehicles, such as a registered vehicle mechanic who has completed an electric vehicle – low voltage training course, or equivalent. The servicing process should be under the high-voltage system power-down condition and is confirmed by the checking result of special service tools/authorised competent person. (This UoC replaced 108689L2)