Specification of Competency Standards
for the Automotive Industry
Unit of Competency

Functional Area - Vehicle Servicing

Title	Conduct fault diagnosis and analysis on vehicle electronic data control systems
Code	108707L3
Range	This unit of competency is applicable in vehicle servicing workshops. Practitioners should be able to independently check, repairing, analysing and evaluating various types of vehicle electronic/data control systems and equipment according to the instructions in the vehicle manufacturer's servicing manual and the relevant requirements on environment, occupational safety and health regulations. They should also be capable of conducting fine-tuning, test and evaluation of system components and providing written report upon completion of work.
Level	3
Credit	3 （For Reference Only）
Competency	Performance Requirements 1. Knowledge (Structure and operating principles of various types of vehicle electronic control systems and equipment) • Good understanding of the structure and operating principles of various types of vehicle electronic control systems and equipment. • Good understanding of the principles of electricity, electronics and data control. • Good understanding of the inspection, service and analysis procedure for various types of vehicle electronic/data control systems and equipment according to servicing instructions provided by vehicle manufacturer or parts supplier. • Understanding of the relevant legal requirements on road and vehicle safety and environment protection. 2. Performance (Conduct fault diagnosis and analysis on various types of vehicle electronic control systems and equipment) • Safely conduct fault diagnosis on various types of vehicle electronic control systems and equipment and repair them according to the information in the servicing manual provided by vehicle manufacturer or parts supplier and the requirements of occupational safety and health as well as environmental protection, including: o Find out common problems of vehicle electronic control systems and equipment by visual inspection o Select suitable tools and instruments to inspect and measure various types of vehicle electronic control systems and equipment and conduct fault diagnosis, calculation and analysis of the problems in the systems according to different data and circumstances o Conduct appropriate rectification work according to the faults found; work may include dismantle, replace, re-assemble and fine-tune relevant system components and accessories o Measure, test and evaluate the operation and efficiency of various types of vehicle electronic/data control systems and equipment o Provide written report after confirming that rectification is done
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 independently conducting complicated fault diagnosis on vehicle electronic/data control systems and equipment according to the instructions in the vehicle manufacturer's servicing manual and the relevant requirements on environment, occupational safety and health regulations;

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	• Capable of implementing or arranging rectification work for relevant systems according to diagnostic results; and • Capable of conducting relevant system tests and evaluation and providing written report upon completion of work.
Remark	The credits value of this unit of competency is set on the presumption that the practitioner concerned has already possessed the knowledge of vehicle electronic and electric systems servicing.