

Specification of Competency Standards
for the Automotive Industry
Unit of Competency

Functional Area - Vehicle Servicing

Title	Assemble air-conditioning systems
Code	108762L2
Range	This unit of competency is applicable in vehicle body building workshops. Practitioners should be able to carry out assembling procedure for air-conditioning systems in accordance with working instructions and working drawing as well as actual worksite condition, providing written report after the work.
Level	2
Credit	3 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Knowledge (Structure and basic operating principles of air cooling and air-conditioning systems in vehicles)</p> <ul style="list-style-type: none"> • Understand the characteristics of refrigerants, relevant handling procedure and legal requirements. • Understand the structure and basic operating principles of air cooling and air-conditioning systems in vehicles. • Understand the installation and inspection procedure for air cooling and air-conditioning systems in vehicles according to manufacturer's instructions. • Understanding of the relevant legal requirements on road and vehicle safety and environment protection. <p>2. Performance (Carry out the assembling procedure for air-conditioning systems in vehicles)</p> <ul style="list-style-type: none"> • Safely assemble the air-conditioning systems in vehicles according to relevant legislative provisions, instructions in the manufacturer's assembling manual and the requirements of occupational safety and health as well as that of environmental protection, including: <ul style="list-style-type: none"> ○ Assemble air-conditioning systems in vehicles ○ Carry out the assembling procedure according to the respective rules of the workshops and instructions ○ Use prescribed tools and instruments to charge the refrigerants into the air-conditioning systems correctly to ensure that the refrigerants will not leak out; and conduct leakage test ○ Connect relevant wires and pipes. • Capable of inspecting and testing the systems upon completion of work to ensure that the requirements of manufacturing specification are met and provide written report.
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 selecting suitable tools and materials correctly according to the content in the manufacturer's assembling manual; • Capable of assembling air-conditioning systems in vehicles according to the content in the manufacturer's assembling manual; • Capable of charging refrigerants into the air-conditioning systems and conducting leakage test; and • Capable of inspecting and testing the systems upon completion of work and providing written report
Remark	The credits value of this unit of competency is set on the presumption that the practitioner concerned has already possessed basic knowledge of how to repair vehicle electric systems and handle refrigerants.