

Specification of Competency Standards for the Automotive Industry
Unit of Competency

1. Title	Check and repair vehicle air cooling and air-conditioning systems
2. Code	AUSDST217A
3. Range	This unit of competency is applicable in vehicle servicing workshops. Practitioners should be capable to check and repair vehicle air cooling and air-conditioning systems safely according to relevant legislative provisions of Hong Kong and the instructions in the vehicle manufacturer's servicing manual. They should also be capable to conduct basic tests of components upon completion of work.
4. Level	2
5. Credits	3(for reference only)
6. Competency	<u>Performance Requirements</u>
	<p>6.1 Understand the structure and basic operating principles of vehicle air cooling and air-conditioning systems</p> <ul style="list-style-type: none"> ◆ Understand the characteristics of vehicle refrigerants and the relevant handling procedure as well as safety rules and regulations ◆ Understand the structure and basic operating principles of vehicle air cooling and air-conditioning systems ◆ Understand the circuit of vehicle air cooling and air-conditioning systems ◆ With reference to relevant legislative provisions of Hong Kong and the instructions in the vehicle manufacturer's servicing manual, know about the general checking and repairing procedure for vehicle air cooling and air-conditioning systems ◆ Understand the legal requirements of concerning the refrigerants recovery.

	<p>6.2 Check and repair vehicle air cooling and air-conditioning systems ♦ According to relevant legislative provisions of Hong Kong, 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 check, repair and test the air cooling and air-conditioning systems, including:</p> <ul style="list-style-type: none"> • Capable to identify the general problems in the components of vehicle air cooling and air-conditioning systems by visual inspection • Use general tools and instruments to check and measure vehicle air cooling and air-conditioning systems • Check and repair the parts of vehicle air cooling and air-conditioning systems as well as electric/electronic devices, including dismantle, replace, re-assemble, adjust and test relevant system components and accessories • Rectify typical system fault • Use prescribed tools or instruments to accurately test refrigerant leakage in the systems • Use the refrigerant recovery machine approved by the Environmental Protection Department to collect/ recycle refrigerants • Collect/top up refrigerants • Use prescribed tools or instruments to accurately measure and test the operation and effectiveness of vehicle air cooling and air-conditioning systems
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	<ul style="list-style-type: none"> • Make and keep record of refrigerant consumption according to environmental protection laws and regulations <p>6.3 Professional practice in checking and repairing vehicle air cooling and air-conditioning systems</p> <p>◆ Capable to collect and handle the refrigerants of vehicle air cooling and air-conditioning systems safely according to relevant regulations and ordinances of Hong Kong</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to check, repair and adjust general vehicle air cooling and air-conditioning systems safely according to the instructions in the vehicle manufacturer's servicing manual and conduct basic tests of components upon completion of work;</p> <p>(ii) Capable to collect and handle the refrigerants of vehicle air cooling and air-conditioning systems according to relevant legislative provisions of Hong Kong and the instructions in the vehicle manufacturer's servicing manual; and</p> <p>(iii) Capable to check any refrigerant leakage in vehicle air cooling and air-conditioning systems.</p>
8. Remarks	<p>The credits value of this unit of competency is set on the presumption that the people concerned already possess basic knowledge of vehicle electronic and electric system servicing.</p>