

**SKILLS FRAMEWORK FOR PUBLIC TRANSPORT
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Automotive Maintenance					
TSC	Bus Air-Conditioning Systems Maintenance					
TSC Description	Implement preventive and corrective maintenance of bus air-conditioning systems					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	PTP-AMT-1001-1.1	PTP-AMT-2001-1.1	PTP-AMT-3001-1.1	PTP-AMT-4001-1.1		
	Carry out scheduled preventive maintenance and serviceability checks on bus air-conditioning systems	Conduct corrective maintenance on bus air-conditioning systems	Troubleshoot faulty bus air-conditioning systems to locate faults and recommend rectification methods	Diagnose root causes of recurring faults on bus air-conditioning systems to resolve systemic failure issues		
Knowledge	<ul style="list-style-type: none"> System layout and operating functions of bus air-conditioning systems Types of components and parts of bus air-conditioning systems Types and properties of air-conditioning refrigerant and lubricant Procedures for preventive maintenance on bus air-conditioning systems in accordance to organisational procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical manuals Procedures for inspection and serviceability checks on air-conditioning systems Types of maintenance supplies, spare parts and consumables for bus air-conditioning systems maintenance Types and safe usage of tools and equipment for performing 	<ul style="list-style-type: none"> System layout and operating functions of bus air-conditioning systems Types of components and parts of bus air-conditioning systems Types and properties of air-conditioning refrigerant and lubricant Types of faults for bus air-conditioning systems Procedures and methods to disassemble, repair and/or replace faulty bus air-conditioning components Functional test procedures on bus air-conditioning systems Types of maintenance supplies, spare parts and consumables for bus air-conditioning systems maintenance Types and safe usage of tools and equipment for performing corrective maintenance work Types and usage of Personal Protective Equipment (PPE) 	<ul style="list-style-type: none"> Operating principles of bus air-conditioning systems Types of troubleshooting and rectification techniques for bus air-conditioning systems maintenance Types of fault identification methods for bus air-conditioning systems Signs of defective or degenerated components within bus air-conditioning systems Safety guidelines on usage of tools and equipment to troubleshoot bus air-conditioning systems 	<ul style="list-style-type: none"> Operating principles of bus air-conditioning systems Types of failure investigation and prevention methods Types of diagnostic tools and equipment Diagnostic procedures for bus air-conditioning systems and components Organisational maintenance procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical recommendations Methods to develop maintenance WI 		

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	<p>preventive maintenance work</p> <ul style="list-style-type: none"> Types and usage of Personal Protective Equipment (PPE) Organisational maintenance documentation and fault reporting procedures 	<ul style="list-style-type: none"> Organisational maintenance documentation and fault reporting procedures 				
Abilities	<ul style="list-style-type: none"> Prepare tools, equipment, materials and checklists required for preventive maintenance tasks Carry out scheduled preventive maintenance tasks on bus air-conditioning systems according to organisation procedures, WI and/or OEM technical manuals Inspect the condition and serviceability of bus air-conditioning systems Follow organisation procedures, WI and/or OEM technical manual instructions on safe handling of tools and equipment during maintenance work Document maintenance activities performed on bus air-conditioning systems Report occurrences of faults and defects identified 	<ul style="list-style-type: none"> Interpret work orders to determine corrective maintenance tasks Coordinate the preparation of resources required for corrective maintenance activities Recognise defective components and parts on bus air-conditioning systems for corrective maintenance work Disassemble bus air-conditioning systems for corrective maintenance Carry out repair and/or replacement of faulty components and parts and Reassemble and reinstate bus air-conditioning systems Perform functional tests on bus air-conditioning systems Apply operating and safety measures during maintenance work Collate and document maintenance activities performed on bus air-conditioning systems 	<ul style="list-style-type: none"> Implement troubleshooting procedures to investigate causes of faults in bus air-conditioning systems Recommend corrective actions to defects identified on bus air-conditioning systems Implement procedures on safe usage of tools and equipment during maintenance work Analyse maintenance activities documented for bus air-conditioning systems to identify maintenance workflow improvements 	<ul style="list-style-type: none"> Establish failure investigation and specify functional testing requirements Perform fault analysis to address systemic failures on bus air-conditioning systems Review data gathered from diagnostic procedures to recommend rectification solutions for recurring faults identified on bus air-conditioning systems Analyse performance of bus air-conditioning systems to evaluate effectiveness of recommended rectification solutions Review corrective and preventive maintenance regime of bus air-conditioning systems to ascertain effectiveness of maintenance procedures Propose new and/or enhanced bus air-conditioning systems maintenance WI in reference to OEM technical recommendations 		