## TSC Category
**Automotive Maintenance**

## TSC
**Bus Air-Conditioning Systems Maintenance**

## TSC Description
Implements preventive and corrective maintenance of bus air-conditioning systems

### TSC Proficiency Description

<table>
<thead>
<tr>
<th>TSC Proficiency Description</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
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<th>Level 5</th>
<th>Level 6</th>
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<tr>
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<td>PTP-AMT-1001-1.1</td>
<td>PTP-AMT-2001-1.1</td>
<td>PTP-AMT-3001-1.1</td>
<td>PTP-AMT-4001-1.1</td>
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<tr>
<td>Carry out scheduled preventive maintenance and serviceability checks on bus air-conditioning systems</td>
<td>Conduct corrective maintenance on bus air-conditioning systems</td>
<td>Troubleshoot faulty bus air-conditioning systems to locate faults and recommend rectification methods</td>
<td>Diagnose root causes of recurring faults on bus air-conditioning systems to resolve systemic failure issues</td>
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### Knowledge
- 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
- 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)
- 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
- 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
<table>
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<th>Skills</th>
<th>Tasks</th>
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<tr>
<td>Preventive maintenance work</td>
<td>• Types and usage of Personal Protective Equipment (PPE) • Organisational maintenance documentation and fault reporting procedures</td>
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<td>Abilities</td>
<td>• 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</td>
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<td>• 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 • Disassemble bus air-conditioning systems for corrective maintenance • Carry out repair and/or replacement of faulty components and parts on bus air-conditioning systems • 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 • 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 • 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</td>
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