

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

<b>TSC Category</b>	Rail Systems Maintenance					
<b>TSC</b>	Platform Screen Door Maintenance					
<b>TSC Description</b>	Implement preventive and corrective maintenance of Platform Screen Door					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
	<b>PTP-RSM-1021-1.1</b>	<b>PTP-RSM-2021-1.1</b>	<b>PTP-RSM-3021-1.1</b>	<b>PTP-RSM-4021-1.1</b>		
	Carry out scheduled maintenance work on Platform Screen Door (PSD) systems	Conduct corrective maintenance on Platform Screen Door (PSD) systems	Troubleshoot faulty Platform Screen Door (PSD) systems to locate faults and recommend rectification methods	Diagnose root causes of Platform Screen Door (PSD) systems failure and review maintenance plans to prevent fault recurrence		
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>Types, functions, configurations and operating principles of PSD systems</li> <li>Types and functions of PSD electric and pneumatic drives and sub-systems</li> <li>Procedures for servicing PSD systems in accordance to organisational maintenance procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical manuals</li> <li>Safety guidelines on use of tools and equipment for preventive maintenance on PSD systems</li> <li>Types and usage of Personal Protective Equipment (PPE) for PSD system maintenance</li> <li>Organisational maintenance documentation and fault reporting procedures</li> <li>Risk assessment procedures</li> </ul>	<ul style="list-style-type: none"> <li>Types, functions, configurations and operating principles of PSD systems</li> <li>PSD system and single line drawings</li> <li>Types and functions of PSD electric and pneumatic drives and sub-systems</li> <li>Risk assessment procedures</li> <li>Types of PSD faults and alarms indicators and response procedures</li> <li>Procedures to dismantle, repair, replace and reassemble PSD systems and components</li> <li>Procedures for conducting PSD system performance checks and identifying faults on PSD systems</li> <li>Safety guidelines on use of tools and equipment for corrective maintenance on PSD systems</li> <li>Types and usage of Personal Protective Equipment (PPE) for PSD systems maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Fundamentals of electronic and electrical instrumentation</li> <li>Operating principles and applications of microcontroller</li> <li>Operating principles of electromechanical systems</li> <li>Common fault symptoms in PSD systems</li> <li>Methods of locating and rectifying faults</li> <li>Types of troubleshooting techniques, equipment and tools</li> <li>Safety guidelines for usage of tools and equipment to execute troubleshooting on PSD systems</li> <li>Functional relationships between PSD systems and the overall rail systems</li> </ul>	<ul style="list-style-type: none"> <li>Factors affecting PSD system performance</li> <li>Failure investigation and prevention methods</li> <li>Methods and tools for diagnostic analysis</li> <li>Procedures for defect diagnosis and root cause analysis</li> <li>Organisational maintenance procedures, Work Instruction (WI) and Original Equipment Manufacturer (OEM) technical recommendations</li> <li>Types and methods of operational and functional test</li> <li>Functional relationships between PSD systems and the overall rail systems</li> </ul>		

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		<ul style="list-style-type: none"> <li>Organisational maintenance documentation and fault reporting procedures</li> </ul>				
<b>Abilities</b>	<ul style="list-style-type: none"> <li>Perform preparation work to conduct preventive maintenance on PSD systems</li> <li>Follow organisational maintenance procedures, WI and/or OEM technical manuals to carry out preventive maintenance on PSD systems</li> <li>Perform serviceability checks on PSD systems</li> <li>Adhere to safety guidelines and operating instructions for tools and equipment during maintenance work</li> <li>Record PSD systems maintenance activities and report occurrences of faults identified</li> </ul>	<ul style="list-style-type: none"> <li>Interpret work orders and prepare for corrective maintenance</li> <li>Carry out first line recovery in response to PSD systems faults and alarms</li> <li>Apply fault identification procedures to determine causes of PSD systems faults</li> <li>Dismantle faulty PSD components for corrective maintenance</li> <li>Repair and/or replace faulty PSD components</li> <li>Reassemble and reinstate PSD systems</li> <li>Perform functional tests on PSD</li> <li>Apply operating and safety measures in operating tools and equipment during maintenance work</li> <li>Record and collate documentation of PSD systems maintenance work</li> </ul>	<ul style="list-style-type: none"> <li>Use troubleshooting tools, equipment and methods to locate and analyse causes of PSD systems faults</li> <li>Recommend corrective actions for identified faults on PSD systems</li> <li>Implement procedures on safety tools and equipment usage during maintenance work</li> <li>Analyse maintenance work documented for PSD systems to identify possible workflow improvements to prevent fault recurrence</li> </ul>	<ul style="list-style-type: none"> <li>Establish structured failure investigation and specify functional testing requirements</li> <li>Perform fault tree analyses to diagnose root failure cause of PSD systems</li> <li>Review organisational PSD systems maintenance procedures</li> <li>Propose new and/or enhanced maintenance procedures and/or WI in reference with OEM technical recommendations</li> <li>Monitor overall maintenance progress of PSD systems to ascertain effectiveness of maintenance procedures</li> <li>Develop solutions by analysing diagnostic data to prevent faults and failures recurrence</li> <li>Develop troubleshooting, rectification and fault analysis methods</li> <li>Develop test procedures for system performance checks</li> <li>Coordinate PSD systems maintenance with other rail systems maintenance needs</li> </ul>		