

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

TSC Category	Rail Systems Maintenance					
TSC	Escalator and Travelator Maintenance					
TSC Description	Implement preventive and corrective maintenance of escalator and travelator					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	PTP-RSM-1011-1.1	PTP-RSM-2011-1.1	PTP-RSM-3011-1.1	PTP-RSM-4011-1.1		
	Carry out scheduled maintenance work on escalator and travelator	Conduct corrective maintenance on escalator and travelator	Troubleshoot and locate faults on escalator and travelator to locate faults and recommend rectification methods	Diagnose root causes of escalator and travelator failure and review maintenance plans to prevent fault recurrence		
Knowledge	<ul style="list-style-type: none"> Types, functions, configurations, operating principles and safety features of escalator and travelator systems Procedures for servicing escalator and travelator system in accordance to organisational procedures, Work Instruction (WI) and/or Original Equipment Manufacturer (OEM) technical manuals Maintenance records documentation procedure Safety guidelines on use of tools and equipment for preventive maintenance on escalator and travelator systems Types and usage of Personal Protective Equipment (PPE) for escalator and travelator systems maintenance Organisational maintenance documentation and fault reporting procedures 	<ul style="list-style-type: none"> Types, functions, configurations, operating principles and safety features of escalator and travelator systems Schematic and control diagrams of escalator and travelator systems Risk assessment procedures Response protocol to escalator and travelator systems faults and alarms Procedures to dismantle, repair, replace and reassemble escalator and travelator components Procedures for conducting system performance checks and identifying faults on escalator and travelator systems Safety guidelines on use of tools and equipment for corrective maintenance on escalator and travelator systems Types and usage of Personal Protective 	<ul style="list-style-type: none"> Fundamentals of electronic and electrical instrumentation Common fault symptoms in escalator and travelator systems Operating principles of electromechanical systems Methods of locating and rectifying faults Types of troubleshooting techniques, equipment and tools Safety guidelines for usage of devices to execute troubleshooting on escalator and travelator systems Building Maintenance and Strata Management requirements 	<ul style="list-style-type: none"> Factors affecting escalator and travelator systems performance Failure investigation and prevention methods Methods and tools for diagnostic analysis Procedures for defect diagnosis and root cause analysis Types and methods of operational and functional test Organisational maintenance procedures, Work Instruction (WI) and Original Equipment Manufacturer (OEM) technical recommendations Functional relationships between escalator and travelator systems and the overall rail systems Building Maintenance and Strata Management requirements 		

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

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