

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

TSC Category	Rail Systems Maintenance					
TSC	Train Supervisory System Maintenance					
TSC Description	Implement preventive and corrective maintenance activities of train supervisory system					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	PTP-RSM-1041-1.1	PTP-RSM-2041-1.1	PTP-RSM-3041-1.1	PTP-RSM-4041-1.1		
	Carry out scheduled maintenance work on train supervisory system	Conduct corrective maintenance on train supervisory system	Troubleshoot faulty train supervisory system to locate faults and recommend rectification methods	Diagnose root causes of train supervisory system failure and review maintenance plans to prevent fault recurrence		
Knowledge	<ul style="list-style-type: none"> Operating principles and functions of train supervisory system Components of train supervisory system Procedures for servicing train supervisory system equipment in accordance organisational maintenance procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical manuals Types of tools and equipment for carrying out preventive maintenance on train supervisory system Safety guidelines on use of tools and equipment for preventive maintenance on train supervisory system Organisational maintenance documentation and fault reporting procedures 	<ul style="list-style-type: none"> Operating principles and functions of train supervisory system Components of train supervisory system Schematic diagrams of train supervisory system Common failures of train supervisory system equipment Procedures to normalise software faults on train supervisory system Procedures to dismantle repair, replace, and re-assemble train supervisory system components Types of tools and equipment for carrying out corrective maintenance on train supervisory system Methods of power isolation Safety guidelines on use of tools and equipment for corrective maintenance on train supervisory system 	<ul style="list-style-type: none"> Schematic diagrams of train supervisory system Common fault symptoms in train supervisory system equipment Methods of locating faults on train supervisory system Procedures to normalise faults on train supervisory systems Types of troubleshooting techniques, equipment and tools Methods of power isolation Safety guidelines for usage of tools and equipment to execute troubleshooting on train supervisory system 	<ul style="list-style-type: none"> Factors affecting equipment and system performance Failure investigation and prevention methods Methods and tools for diagnostic analysis Organisational maintenance procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical recommendations Types and methods of continuity and functional tests on train supervisory system equipment Functional relationships between train supervisory system, other signalling systems and overall rail system 		
Abilities	<ul style="list-style-type: none"> Perform preparation work to conduct 	<ul style="list-style-type: none"> Interpret work orders and prepare for corrective maintenance 	<ul style="list-style-type: none"> Use troubleshooting tools, equipment and methods to locate and 	<ul style="list-style-type: none"> Establish structured failure investigation and 		

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	<p>maintenance on train supervisory system</p> <ul style="list-style-type: none"> • Follow organisational procedures, WI and/or OEM technical manuals to carry out preventive maintenance on train supervisory system • Perform serviceability checks on train supervisory system • Adhere to safety guidelines and operating instructions for tools and equipment during maintenance activities • Record train supervisory system maintenance activities and report occurrences of faults identified 	<ul style="list-style-type: none"> • Apply power isolation procedures during train supervisory system maintenance • Normalise software faults on train supervisory system • Dismantle faulty components in train supervisory system equipment and components for corrective maintenance • Carry out rectification, repair and/or replacement of faulty components • Reassemble and reinstate train supervisory system • Perform functionality tests on train supervisory system • Apply operating and safety measures in operating tools and equipment during maintenance work • Record and collate documentation of train supervisory system maintenance activities 	<p>analyse causes of train supervisory system equipment faults</p> <ul style="list-style-type: none"> • Apply fault identification procedures to determine causes of train supervisory system • Perform system software reconfiguration and/or upgrade • Recommend corrective actions for identified faults on train supervisory system • Deploy power isolation processes during train supervisory system maintenance • Implement procedures on safety usage of tools and equipment during maintenance work • Analyse maintenance work documented for train supervisory system to identify possible workflow improvements 	<p>specify functional testing requirements</p> <ul style="list-style-type: none"> • Apply failure investigation methods to diagnose root cause failure of train supervisory system • Review organisational train supervisory system maintenance procedures and/or WI • Propose new and/or enhance maintenance procedures and/or WI in reference to OEM recommendations • Monitor overall maintenance progress of train supervisory system to determine system performance reliability and effectiveness • Perform system software restoration and/or upgrade • Perform fault tree analyses on train supervisory system • Develop solutions by analysing diagnostic data to prevent faults and failures recurrence • Develop troubleshooting, rectification and fault analysis methods and techniques • Develop test procedures for system performance checks • Coordinate train supervisory system maintenance with other rail systems maintenance needs 		
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