

1. Title	Fix the faults in automatic train control system equipment on the train
2. Code	EMRAOR406A
3. Range	Identify and repair the faults in automatic train control (ATC) system equipment on the train at a train maintenance centre or in operation.
4. Level	4
5. Credits	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Structure and working principles of the ATC system</p> <ul style="list-style-type: none"> <li>◆ Understand the structure and working principles of the ATC system</li> <li>◆ Understand the functions and working principles of the ATC system equipment components on the train, including: <ul style="list-style-type: none"> <li>• ATC electronic control unit on the train</li> <li>• Interface unit</li> <li>• Antennas</li> <li>• Accelerometer</li> <li>• Tachometer</li> </ul> </li> <li>◆ Master the basic fault finding techniques</li> </ul> <p>6.2 Methods and procedures of identifying and repairing the faults in the ATC system equipment on the train</p> <ul style="list-style-type: none"> <li>◆ Able to read the microprocessor, electronic and communication engineering drawings and check the ATC system equipment on the train systematically and efficiently</li> <li>◆ Analyze the information and fault symptoms and check the ATC system equipment on the train to find the root cause of fault</li> <li>◆ Analyze the information and fault symptoms and check the ATC system equipment under the train to find the root causes of faults</li> <li>◆ Repair the fault after identifying the faulty equipment or component</li> <li>◆ Use general electronic equipment repairing and testing instruments and specialized ATC system testing instruments efficiently</li> </ul> <p>6.3 Professionalism in identifying and repairing the faults in the ATC system equipment on the train</p> <ul style="list-style-type: none"> <li>◆ Identify and repair the faults in the ATC system equipment on the train according to the standards and requirements for work safety, health, environmental protection and quality management of railway works</li> <li>◆ Understand the safety guidelines as required by the law and codes of practice in identifying and repairing the faults in the ATC system equipment on the train</li> </ul>

7. Assessment Criteria	The integrated outcome requirement of this unit of competency is:  (i) Capable to identifying the faults in the ATC system equipment on the train (and under the train) within a reasonable period of time according to the fault symptoms, and to fix the faults.
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses knowledge of electronics and the railway signal system.