

1. Title	Inspect, test and commission railway signal interlock system
2. Code	EMRAIT410A
3. Range	Inspect, test and commission railway signal interlock system at railway premises, railway traffic control rooms and signal switch rooms to ensure that the train receives signals correctly and the interlock system functions properly to prevent train accidents.
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 railway signal and control system</p> <ul style="list-style-type: none"> ◆ Understand the structure and working principles of the railway signal and control system ◆ Understand the structure and working principles of the central interlock units, including: <ul style="list-style-type: none"> • PLC units • Electronic circuit units ◆ Understand the structure and working principles of the trackside functional units of the railway signal and control system, including: <ul style="list-style-type: none"> • Trackside units • Interface devices • Signal and information transmission equipment ◆ Understand the scope and standards for inspection, testing and commissioning of the railway signal interlock system <p>6.2 Methods and procedures of inspecting, testing and commissioning railway signal interlock system</p> <ul style="list-style-type: none"> ◆ Able to read the inspection, testing and commissioning guidelines and circuit diagrams and select useful information ◆ Calculate and compile the details for testing and commissioning according to relevant information ◆ Inspect, test and commission the central interlock components of the railway signal interlock system according to guidelines and standards, and record the data from tests ◆ Inspect, test and commission the trackside functional components of the railway signal interlock system according to guidelines and standards, and record the data from tests ◆ Use general electrical and electronic equipment testing instruments and tools efficiently

	<p>6.3 Professionalism in inspecting, testing and commissioning railway signal interlock system equipment</p> <ul style="list-style-type: none"> ◆ Inspect, test and commission the railway signal interlock system equipment according to the standards and requirements for work safety, health, environmental protection and quality management of railway works ◆ Understand the safety guidelines as required by the law and codes of practice in inspecting, testing and commissioning the railway signal interlock system equipment
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> (i) Capable to inspect, test and commission safely and efficiently the operation of interlock of the railway signal and control system, including conducting function test for the central interlock components and trackside interlock components; and (ii) Capable to record the data from tests correctly and effectively.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses knowledge of electronics, computer and communication.</p>