

1. Title	Overhaul electrical components of escalators	
2. Code	EMLEOR332A	
3. Range	Arrange and implement overhauls of escalator's electrical elements at field locations.	
4. Level	3	
5. Credit	3	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Structure and working principles of escalator's electrical components</p> <ul style="list-style-type: none"> <li>◆ Understand the structure and working principles of different control cabinets including: <ul style="list-style-type: none"> <li>• single speed AC drive (AC 1) control cabinet</li> <li>• AC star-delta driven (AC Y / Δ ) control cabinet</li> <li>• variable voltage variable frequency AC drive (ACVVVF) control cabinet</li> </ul> </li> <li>◆ Understand the structure and working principles of different lighting including: <ul style="list-style-type: none"> <li>• step lighting</li> <li>• lighting at balustrade</li> <li>• lighting at interior profile</li> </ul> </li> <li>◆ Understand the structure and working principles of different startup devices including: <ul style="list-style-type: none"> <li>• manually-operated startup key</li> <li>• photo-sensor automatically start-up device</li> <li>• contact-mat automatically startup device</li> </ul> </li> <li>◆ Understand the structure and working principles of all kinds of emergency stop devices including: <ul style="list-style-type: none"> <li>• power supply phase sequence detector, motor overload detector, overspeed detector of overspeed governor, broken driving chain device, handrail inlet protective device, emergency stop devices, combplate safety devices, step wheel and step chain wheel monitor, skirting safety device and broken step chain device</li> </ul> </li> </ul> <p>6.2 Overhaul methods and procedures for electrical components</p> <ul style="list-style-type: none"> <li>◆ Formulate overhaul procedure lists for different electrical components including: <ul style="list-style-type: none"> <li>• different control cabinets</li> <li>• different lightings</li> <li>• different startup devices</li> <li>• different emergency stop devices</li> </ul> </li> </ul>	

	<p>6.3 Professionalism in completed disassembly and assembly of electrical components</p> <ul style="list-style-type: none"> <li>◆ Effectively use protective barriers or guards to implement and assign safety measures at work sites including: <ul style="list-style-type: none"> <li>• safety preparation works for escalator shutdown</li> <li>• safety precaution works for surrounding</li> <li>• safety works for resumption operation</li> </ul> </li> <li>◆ Effectively use different tools to implement and assign completed disassembly and assembly work for different electrical components</li> <li>◆ Apply manufacturer’s repair instructions to implement and assign completed disassembly and assembly work for different electrical components</li> <li>◆ Apply manufacturer’s repair instructions and the code of practice for escalator design and construction to implement and assign completed adjustment and testing work for different electrical components including: <ul style="list-style-type: none"> <li>• power supply phase sequence detector, motor overload detector, overspeed detector of overspeed governor, broken driving chain device, handrail inlet protection device, emergency stop devices, combplate safety devices, step wheel and step chain wheel monitor, skirting safety device and broken step chain device</li> </ul> </li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>(i) Capable to arrange and assign completed disassembly, assembly and adjustment procedures for different escalator’s electrical components systematically and through effective communication; and</li> <li>(ii) Capable to implement completed disassembly, assembly and adjustment of different escalator’s electrical components under general or complicated situations in compliance with the prescribed standards of repair.</li> </ul>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses knowledge and skills in overhauling handrail driving devices of general escalators.</p>