

**Specification of Competency Standards for the Watch & Clock Industry**

**Unit of Competency**

1. Title	Master the Quality Check Standards and Use of Test Equipment for Movement/Components of Complete Watch
2. Code	WCZZQA201A
3. Level	2
4. Credit	18
5. Competency	<p align="center"><u>Performance Requirements</u></p> <p>5.1 Know about the basic construction and working function of complete watches and their components</p> <ul style="list-style-type: none"> <li>◆ Know about the basic construction of complete watches and their components</li> <li>◆ Know the working principles of complete watches and their components</li> </ul> <p>5.2 Know about the quality check standards for mechanical movements</p> <ul style="list-style-type: none"> <li>◆ Know about the isochronisms of mechanical movements <ul style="list-style-type: none"> <li>• (accuracy) RATE</li> <li>• BEAT</li> <li>• AMPLITUDE</li> </ul> </li> <li>◆ Master oiling condition standards for movements</li> <li>◆ Understand the flatness of balance spring</li> <li>◆ Master cleanliness</li> </ul> <p>5.3 Know about the quality check procedures for mechanical movements</p> <ul style="list-style-type: none"> <li>◆ Know how to first check the accuracy (rate) and beat</li> <li>◆ Capable of checking the amplitude as displayed on the amplimeter</li> <li>◆ Capable of examining the following check points in the given order with eye-loupe</li> </ul>

	<ul style="list-style-type: none"> <li>◆ in large magnification             <ul style="list-style-type: none"> <li>• Cleanliness of the exterior appearance</li> <li>• Oiling condition</li> <li>• Flatness and centering of balance spring</li> </ul> </li> <li>◆ Capable of checking the winding and running conditions of movement</li> <li>◆ Capable of measuring the locking torque of screws with special torque meter</li> <li>◆ Capable of checking the land-setting condition and paying attention to the tightness of cannon pinion</li> <li>◆ Capable of checking the tightness of the calendar disc and day disc</li> <li>◆ Capable of checking the quick jumping of the calendar disc and day disc</li> <li>◆ Capable of checking the hand-fitting height of the movement</li> </ul> <p>5.4 Master the correct usage and maintenance of testing equipment and tools for mechanical movements</p> <p>5.5 Know about the quality check standards for movement of digital watch</p> <ul style="list-style-type: none"> <li>◆ Know about and master the correct usage and maintenance of testing equipment and tools for mechanical movements</li> <li>◆ Know about the testing and quality check of electronic parts of quartz digital watch</li> <li>◆ Master the display function of the LCD display panel(clarity)</li> <li>◆ Master the functioning of the push-buttons with the contact plates</li> <li>◆ Capable of checking for the contacts of the battery plates(positive and negative pole)</li> </ul>
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	<p>5.6 Know about the quality check procedures for quartz digital watch</p> <ul style="list-style-type: none"> <li>◆ Understand the design of the circuit board before developing quality check procedures for quality inspectors</li> </ul> <p>5.7 Know about the quality check procedures for quartz analog movements</p> <ul style="list-style-type: none"> <li>◆ Know about the testing and quality check procedures for electronic module</li> <li>◆ Know about the testing and quality check for mechanical parts</li> </ul> <p>5.8 Master the correct use and maintenance of testing equipment and tools for quartz digital and analog movements</p> <ul style="list-style-type: none"> <li>◆ Know about and master the correct use and maintenance of testing equipment and tools for quartz digital and analog movements</li> </ul> <p>5.9 Use movement testing instruments</p> <ul style="list-style-type: none"> <li>◆ Capable of performing quality check using testing instruments and the quality check standards for movement/components of a Complete Watch</li> </ul>
<p>6. Range</p>	<p>In Timepiece product factories, under guidance or following the code of practice, capable of performing quality check using testing instruments and applying the quality check standards for the movement/components of a Complete Watch.</p>
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirements of this unit of competency are:          (i) either under guidance or following the code of practice, capable of performing quality check using testing instruments and tools for the movement/components of a Complete Watch</p>

8. Remarks	
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