

MAINTAIN VEHICLE COMFORT SYSTEM

UNIT CODE: 0716 551 22A

TVET CDACC UNIT CODE: ENG/OS/AUT/CR/02/6/MA

UNIT DESCRIPTION

This unit specifies the competencies required to maintain vehicle comfort system. It includes to Service vehicle Heating, ventilation and Air conditioning system, Servicing vehicle infotainment system and carrying out vehicle Comfort system diagnosis

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make workplace functions	These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the range)</i>
1. Service vehicle Heating, ventilation and Air conditioning system	1.1 Work area is organized and safety measures undertaken before use as per workplace procedure 1.2 Tools, equipment and materials are assembled as per work requirements 1.3 <i>Vehicle heating and ventilation components</i> is assessed according to manufacturer's manual 1.4 <i>Vehicle Air conditioning components</i> is assessed according to manufacturer's manual 1.5 Vehicle Heating, ventilation and Air conditioning components are serviced/replaced according to manufacturer's manual 1.6 Vehicle Heating, ventilation and Air conditioning system service documents are prepared according to workplace procedures
2. Service Vehicle infotainment system	2.1 Work area is organized and safety measures undertaken before use as per workplace procedure 2.2 Tools, equipment and materials are assembled as per work requirements 2.3 <i>Vehicle infotainment components</i> are assessed according to manufacturer's manual 2.4 Vehicle infotainment components are serviced/replaced according to manufacturer's manual 2.5 Vehicle infotainment system service documents are prepared according to workplace procedures

3. Carry out Vehicle Comfort system diagnosis	3.1 Tools, equipment and materials are assembled as per work requirements 3.2 Vehicle Comfort components are assessed according to manufacturer's specifications 3.3 Diagnostic trouble codes are interpreted as per manufacturer's specifications 3.4 Vehicle Comfort system faulty sensors, actuators and circuits are replaced/serviced as per manufacturer's specifications 3.5 Vehicle Comfort system service documents are prepared according to workplace procedures
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RANGE

This section provides work environment and conditions to which the performance criteria apply. It allows for different work environment and situations that will affect performance.

Variable	Range
1 Vehicle heating and ventilation components may include but not limited to;	• Heater core • Ducts • Blower • Heat exchanger • Thermostat • Air filters • Vents • Switch • Hoses • HVAC module
2 Vehicle Air conditioning components may include but not limited to;	• Condenser • Drier • Air compressor • Evaporator • Expansion valve • Delivery pipes • Fan • Drive belt
3 Vehicle infotainment components may include but not limited to;	• Audio player • Camera system • Gesture controls • Voice Recognition • Navigation • Smart phone integration

	• Television
4 Vehicle Comfort components may include but not limited to;	• In car functions • Sun roof • Heated seats • Convertible roofs • Cruise Control • Active Head rest

REQUIRED KNOWLEDGE AND SKILLS

This section describes the knowledge and skills required for this unit of competency.

Required knowledge

- Legislative and organizational requirements and procedures
- Kenyan legislation and workplace procedures relevant to
 - ✓ Health, safety, environment and quality
 - ✓ the environment (including waste oil and spent refrigeration gas disposal)
 - ✓ Personal and vehicle protective equipment.
- Workplace procedures for:
 - recording fault location and correction activities;
 - reporting the results of tests;
 - the referral of problems;
 - The importance of working to recognized assessment and rectification procedures and obtaining the correct information for rectification.
 - The importance of documenting assessment and rectification information.
 - The importance of working to agreed timescales and keeping others informed of progress.
 - The relationship between time, costs and profitability.

Required skills

The individual needs to demonstrate the following skills:

- Proficient in ICT;
- Time management;
- Problem solving;
- Communications (verbal and written);

- Planning;
- Decision making;
- First aid;
- Diagnosis
- Analytical
- Vehicle Heating, ventilation and Air conditioning system service
- Service Vehicle infotainment system service
- Vehicle Comfort system diagnosis
- Report writing;

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills range.

1. Critical Aspects of Competency.	<i>Assessment requires evidence that the candidate:</i> 1.1 Organized work area and safety measures undertaken before use as per workplace procedure 1.2 Assessed <i>Vehicle heating and ventilation components</i> according to manufacturer's manual 1.3 Assessed <i>vehicle Air conditioning components</i> according to manufacturer's manual 1.4 Serviced/replaced vehicle Heating, ventilation and Air conditioning components according to manufacturer's manual 1.5 Assessed <i>vehicle infotainment components</i> according to manufacturer's manual 1.6 Serviced/replaced vehicle infotainment components according to manufacturer's manual 1.7 Assessed <i>Vehicle Comfort components</i> according to manufacturer's specifications 1.8 Interpreted Diagnostic trouble codes as per manufacturer's specifications 1.9 Replaced/serviced Vehicle Comfort system faulty sensors, actuators and circuits as per manufacturer's specifications
2. Resource implications	The following resources should be provided: 2.1 Access to relevant workplace where assessment can take place 2.2 Appropriately simulated environment where assessment can take place 2.3 Resources relevant to carrying out the tasks required