

1. Module details**Module name****Service Dishwashing Machines****Module duration**

It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 36 – 40 hours.

Module code

NUE014

Discipline code**2. Module purpose**

This module aims to provide students with knowledge and skills to enable them to effectively and efficiently carry out service and repairs on dishwashing machines.

3. Prerequisites

NUE016 Domestic Appliance Principles.

4. Relationship to competency standards

This module provides some of the knowledge and skills underpinning competence in the following Appliance Servicing Draft Standards: A.1, A.2, A.3, A.4, A.5.

5. Content**Codes and Regulations**

plumbing - water supply drainage, back siphoning, electrical insulating, earthing
manufacturers data

Types and Applications

types of dishwashing machines (automatic washer; side load, front load, semi-automatic washers)
application and significance

Test Procedures

OH & S procedures
manufacturers data
test instruments
tools
service report, customer advice
electrical testing; motors, controllers, timers, operation, safety thermostat, and heaters
mechanical testing; safety locks, not draining, or complete spraying noisy

Repair/replace components

access to appliance
confirm fault diagnosis
disconnect services; water
select component from manufacturers data, service vehicle supplier
removal and replacement of electrical controls, motor,

capacitors, thermostats, switches, heaters, lead, plug, timer wiring
 removal and replacement of electrical controls, motor, capacitors, thermostats, switches, heaters, lead, plug, timer wiring
 removal and replacement of various mechanical items; belts, bearings, door locks, filters, hoses, pumps, float switch, dispenser, leveling feet, balance control gaskets lint screens (adhesive and water sealant, cleaning of cabinets and components, removing rust and minor repairs to cabinets touching up paint work)

Test

set operational and safety controls
 check electrical components
 operate system and adjust cycle controls
 carry out leak tests

Service Report

information and advice to equipment owners
 equipment labels
 service reports
 documentation

6. Assessment strategy

Assessment methods

Theory test, Short answer questions, Practical test

Conditions of assessment

7. Learning outcome details

Learning outcome 1

List statutory requirements relating to dishwashing machines.

Assessment criteria

- 1.1 Identify the relevant codes, regulations and statutory requirements.
- 1.2 List requirements for electrical safety and water supply and drainage.

Learning outcome 2	Identify types, application and operating principles of typical dishwashing machines from manufacturer's data.
Assessment criteria	2.1 List typical types of dishwashing machines. 2.2 List significant differences between the various types of dishwashing machines.
Learning outcome 3	Carry out test procedures to diagnose faults.
Assessment criteria	3.1 Test the appliance in accordance with industry standards (electrically and mechanically). 3.2 Identify the fault and faulty component. 3.3 Tag the appliance in the approved manner.
Learning outcome 4	Repair/replace faulty components in dishwashing machines in accordance with manufacturers data.
Assessment criteria	4.1 Remove and replace a given component (electrical, control, mechanical, water hose etc). 4.2 Reseal components using adhesive, gasket. 4.3 Carry out minor cabinet repairs, adjustments welding and paint touch up.
Learning outcome 5	Test repaired appliance to ensure it meets company standards and customer satisfaction.
Assessment criteria	5.1 Set operational and safety controls. 5.2 Test electrical components. 5.3 Adjust controls and check system operation.
Learning outcome 6	Complete service report.
Assessment criteria	6.1 Complete customer service report. 6.2 Complete warranty/company documentation. 6.3 Change equipment.

8. Delivery of the module

Delivery strategy

Delivery strategies must be suitable for both theoretical and/or practical learning and module purpose. It is recommended that learning and assessment be facilitated in a holistic manner which may require a learning sequence other than indicated in the body of this module descriptor.

Resource requirements

Most of the practical aspects of this modules would be by demonstration or group participation. However when applicable, maximum of one student per appliance being tested after repairs have been carried out is advised for competency.

Appliance workshop

Equipment:

- Several types of dishwashing machines suitable for repairs.
- Appropriate manufacturers data.
- Appropriate replacement components.
- Specialised tools and equipment to carry out the repairs.
- Specialised testing equipment.

Occupational health and safety requirements

Students should be made aware of Occupational Health and Safety issues in all situations and be expected to demonstrate safe working practices at all times. Electrical safety should be emphasised.