

1. Module details**Module name****Basic Television and VCR Installation****Module duration**

It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 18 – 20 hours.

Module code

NUE106

Discipline code

0703230

2. Module purpose

This module aims to provide students with practical skills enabling them to successfully install and set up televisions, and perform simple servicing.

3. Prerequisites

NUE101 Introduction to Television.

4. Relationship to competency standards

This module provides some of the knowledge and skills underpinning competence in the following standards: Federal Metals Industry Award Standards, Units 18.45A, 18.56A, 18.65A. National Electrotechnology Industry Standards, Units NES205, NES302, NES303, NES305, NES306, NES402, NES403, NES406, NES407.

5. Content**Television and VCR installation**

tuning televisions

adjustment of customer and technician controls

Basic TV system faults

the switch on process

generic fault finding procedures and techniques

location of faults to functional block

location of functional block on typical schematics

visual inspection

simple repairs

safety procedures when working with televisions

Safety procedures

6. Assessment strategy

Assessment methods

Assessment should be progressive reflecting an holistic approach to ensure the module purpose is met. To assist in ensuring validity, reliability and fairness assessment instruments should include practical exercises, assignments and written tests consisting of a number of item types, such as multiple choice, short answer and problem solving.

Conditions of assessment

Normally learning and assessment will take place in a classroom / laboratory environment.

7. Learning outcome details

Learning outcome 1

Install a domestic television receiver to an existing aerial.

Assessment criteria

- 1.1 Connect a television to an existing aerial and tune television to receive off air broadcasts. Store channel settings in accordance with customer’s requirements.
- 1.2 Tune a television to the RF and AV outputs from a VCR.
- 1.3 Adjust customer controls on a typical colour television and demonstrate operation of the TV.
- 1.4 Adjust technician controls on a typical colour television to produce satisfactory performance.
- 1.5 Determine satisfactory operation of a domestic television system according to manufacturer’s specifications, customer requirements and local conditions.
- 1.6 Given unsatisfactory performance, determine which part of the system is responsible.

Learning outcome 2

Install and service television receivers safely.

Assessment criteria

- 2.1 Describe electrical hazards when working on colour televisions.
- 2.2 Describe physical hazards when working with colour televisions.
- 2.3 List typical safety items that should be employed when working with colour televisions.

	2.4	State the purpose of using isolation transformers.
	2.5	State the advantages of using an earth leakage detector when working with colour televisions.
	2.6	Describe the principle of operation of typical safety devices or equipment used when working with colour televisions.
	2.7	Perform safety inspections on televisions.
	2.8	Correctly lift and carry a colour television.
Learning outcome 3		Identify functional blocks and major components on a typical schematic diagram and in a TV receiver.
Assessment criteria	3.1	Identify functional blocks and major components on the schematic diagram of a range of typical colour televisions.
	3.2	Using correct safety procedures locate and identify major components and functional blocks in a range of television receivers.
Learning outcome 4		Perform basic fault finding procedures on TV receivers.
Assessment criteria	4.1	Describe generic basic fault finding procedures used with televisions.
	4.2	Record relevant fault symptoms from customers description.
	4.3	Describe the visible and audible effects manifested when a correctly operating colour television is switched on.
	4.4	Describe typical audible or visual symptoms of a malfunctioning receiver.
	4.5	Identify faulty functional block and justify the selection.
Learning outcome 5		Perform basic repairs to a colour television.
Assessment criteria	5.1	Describe and perform the correct procedure to render a TV safe for repair work.
	5.2	Perform visual inspection of a colour television and highlight potential problems such as dried out capacitors, components showing signs of stress and over heated areas of the PCB.

- 5.3 Perform simple repairs such as rectifying dry joints, replacement of fuse.
- 5.4 Determine if a remote control hand-piece is functional by testing batteries and using a remote control tester.

8. Delivery of the module

Delivery strategy

Delivery strategies must be suitable for learning both theoretical and practical aspects described in the module purpose. It is considered that the most effective way to achieve this is by the integration of theory and practice where students learn by experimentation and through research and laboratory reports. It is recommended that learning and assessment be facilitated in an holistic manner which may require a learning outcome sequence other than that indicated in the module.

Resource requirements

Resources should be sufficient for students to carry out experiments on an individual basis. This will require a range of television receivers and test equipment.

Useful references include:

Ibrahim KF 1994, *Television Receivers*
 Longman Essex, England
 ISBN 0-582-086175

Liff A et al 1993, *Colour and Black and White Television*
 Prentice Hall, Englewood Cliffs
 ISBN 0-13-150012-0

Zarach et al 1985, *Television: Principles and Practice*
 MacMillan, Hampshire

Trundle E 1996, *Newnes Guide to TV and Video Technology*
 Butterworth-Weinermann Oxford
 ISBN 07506 23748

Botto D 1992, *A Basic Guide to Colour TV and VCRs*
 Electronics Australia, Federal Publishing, Alexandria

Occupational health and safety requirements

A safe and healthy environment will be provided for students and teachers as well as safe procedures with regard to learning / teaching activities.