ICTRFN304 Construct and test a radio communications device

Release: 1

ICTRFN304 Construct and test a radio communications device

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to plan, build and review a radio communications transmitting or receiving device.

It applies to individuals working as radio maintenance technicians, radio installers and radio repairers who use specialist equipment and work within regulatory and legislative frameworks.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications – radio frequency networks

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare to construct radio communications device	1.1 Prepare for construction, applying all relevant legislation, codes, regulations and standards, and identify any safety issues 1.2 Determine details of radio communications device to be constructed from project specifications 1.3 Produce wiring diagram, component list and block diagram of radio communications device to prepare for construction and testing of device 1.4 Draw up plans showing method of construction and enclosure details

	1.5 Designate suitable test points along signal flow paths on circuit diagram for testing of functional blocks
	1.6 Produce test setups to evaluate performance of radio communications device
	1.7 Obtain tools and test equipment
2. Construct and test radio communications device	2.1 Assemble radio communications device according to circuit diagram and layout drawing
	2.2 Test performance and operation of individual functional blocks and overall radio communications device according to test regime
	2.3 Transmit or receive signals to evaluate qualitative performance through radio communications device
3. Complete documentation and clean up worksite	3.1 Document results of test procedures and compare with initial project specifications
	3.2 Finalise project report and make recommendations for improvement to radio communications device
	3.3 Remove waste from worksite according to environmental requirements and restore site to safe condition

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2	• Recognises and interprets textual information from relevant sources to determine job specifications and regulatory and legislative requirements
Writing	1.3-1.5, 3.1, 3.2	• Uses clear, technically specific language, appropriate formatting and diagrammatic information to complete and update workplace documentation
Numeracy	2.3	• Analyses numerical information when undertaking test measurements, interpreting results and evaluating performance
Navigate the world of work	1.1, 3.3	• Takes personal responsibility for adherence to legal and regulatory requirements, with specific reference to safe industry practices • Understands the nature and purpose of own role

		and associated responsibilities
Get the work done	1.1, 1.6, 1.7, 2.1, 2.2, 3.2	• Determines job priorities, sequences the steps involved in clearly defined and familiar tasks, and identifies and assembles the equipment, resources and access required • Takes responsibility for routine decision making by selecting from a range of predetermined options in routine situations, identifying and taking situational factors into account • Identifies and implements standard solutions when troubleshooting and managing contingencies to adapt assembly and review procedures • Reviews outcomes and identifies technical improvements that could be made

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTRFN304 Construct and test a radio communications device	ICTRFN3155A Construct and test a radio communications device	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2