



Australian Government

ICTDRE401 Integrate customer digital reception equipment

Release: 1

ICTDRE401 Integrate customer digital reception equipment

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 integrate emerging audiovisual technology equipment in a customer home network.

It applies to individuals working as installers with a range of customer equipment limited to radio frequency (RF) signal services types requiring current knowledge of equipment capabilities and connection types.

No licensing, legislative or certification requirements apply at the time of publication. However, users should confirm requirements with the relevant federal, state or territory authority.

Unit Sector

Telecommunications – Digital Reception Technology

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Evaluate existing customer equipment	1.1 Obtain relevant legislation, codes, regulations and standards for compliance when conducting work 1.2 Notify customer to verify installation order and arrange for site access to comply with security arrangements 1.3 Notify supervisor of identified safety hazards at worksite and complete a job safety analysis (JSA) before commencing work 1.4 Use test equipment to verify customer equipment is operational prior to installation 1.5 Assess equipment capabilities and connection types against

ELEMENT	PERFORMANCE CRITERIA
	customer requirements for suitability 1.6 Assess customer premises against installation plan according to client specifications and by-laws, standards and regulations 1.7 Produce an installation diagram using appropriate drawing symbols to indicate connection details of customer system
2. Design and build system	2.1 Determine connection pathways for optimal performance of system equipment 2.2 Confirm compatibility for proposed connections to existing system 2.3 Produce a final design with block diagrams and specifications 2.4 Select and connect cables to suit connectivity using appropriate materials 2.5 Activate equipment to check for network operation
3. Provide enterprise equipment	3.1 Determine best method of connection to service source according to client specifications 3.2 Connect service to system following work health and safety (WHS) and environmental requirements and test to verify connection status 3.3 Notify service provider if identified problems cannot be rectified at local level
4. Configure services and optimise customer system	4.1 Conduct client specific and customer set-up operations 4.2 Test performance of enterprise and customer equipment across a range of settings 4.3 Record and evaluate test results to satisfy manufacturer's operational margins 4.4 Tune customer equipment for optimal performance 4.5 Restore site to original condition and customer satisfaction
5. Train customer and complete contract documentation	5.1 Conduct customer training appropriate to equipment, services and vendor literature 5.2 Complete appropriate records and update administration systems according to enterprise policy 5.3 Record and store test results in appropriate database, leaving copies on site according to enterprise policy 5.4 Provide warranties to customer in required format where work and equipment are subject to warranty 5.5 Prepare invoices and other financial documentation, where

ELEMENT	PERFORMANCE CRITERIA
	required, and present to customer 5.6 Obtain authorised signatures on required documentation to confirm acceptance of completed work

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	1.1, 1.4, 5.1, 5.3	Interprets textual information from relevant sources to identify key information
Writing	1.7, 2.3, 4.3, 5.3, 5.5	Uses clear, specific and industry-related terminology to complete workplace documentation
Oral Communication	1.2, 1.3, 5.1	Articulates clearly using appropriate language for environment and uses listening techniques to confirm understanding
Numeracy	4.2, 5.5	- Takes readings and measurements and interprets results - Uses simple calculations to prepare financial documentation
Navigate the world of work	1.5, 1.6, 2.1, 2.2, 3.1, 3.2, 4.1, 4.4, 4.5, 5.4	Takes responsibility for following safe, sustainable, appropriate and efficient workplace procedures
Interact with others	3.3, 5.6	- Advises service provider of any problems that cannot be resolved locally - Deals with customer to sign-off on completed work
Get the work done	2.4, 2.5	Plans, organises and implements tasks to achieve them efficiently to meet customer requirements

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status

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ICTDRE401 Integrate customer digital reception equipment	ICTDRE4166A Integrate customer digital reception equipment	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>

Assessment Requirements for ICTDRE401 Integrate customer digital reception equipment

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Performance Evidence

Evidence of ability to:

- identify modulation and other signal characteristics of a range of contemporary products
- design and build system
- install three types of equipment and services, applying all related work health and safety (WHS) requirements and work practices
- configure services and optimise customer system
- conduct functionality tests and interpret results
- provide customer training appropriate to equipment
- complete task and handover to customer.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify analog and digital connectors
- list contemporary equipment and connection methods
- explain continuity, ingress, egress, signal level and signal quality performance tests
- outline customer service principles, particularly dealing with customers face-to-face
- discuss enterprise or service specific knowledge of products and services supplied
- describe equipment types:
 - amplifiers
 - couplers
 - splitters
 - taps
- discuss modulation techniques
- define objectives and methods of training for product use for customer education

- discuss WHS general principles and enterprise-specific job safety analysis (JSA) requirements
- assess performance adjustments for tuning, balancing and replacing components
- summarise quality assurance of enterprise requirements
- review test analysis and diagnosis (enterprise diagnosis methods)
- describe video and audio fundamentals

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the Telecommunications – Digital Reception Technology industry and include access to:

- a site for Digital Reception Technology (DRE) integration
- DRE currently used in industry
- test equipment required for DRE integration.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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