



Australian Government

AHCINF308 Install and terminate extra low voltage wiring systems

Release: 1

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Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 9.0.

Application

This unit of competency describes the skills and knowledge required to install wiring enclosures, cable support systems, cables and accessories in electrical systems of 36 volts or less.

The unit applies to individuals who install and terminate extra low voltage wiring systems under broad direction, and take responsibility for their own work.

All work must be carried out to comply with workplace procedures, health and safety in the workplace requirements and manufacturer specifications.

Licensing, legislative, regulatory or certification requirements may apply in some jurisdictions to installing and terminating extra low voltage wiring systems. User are advised to check with the relevant state or territory regulatory authority.

Pre-requisite Unit

Nil

Unit Sector

Infrastructure (INF)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for installation of extra low voltage wiring	1.1 Plan and prepare installation to ensure policies and procedures are followed, and the work is appropriately sequenced according to requirements 1.2 Consult with appropriate personnel to ensure the work is

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	coordinated effectively with others on the work site 1.3 Size cables and wires to suit calculated load 1.4 Check wiring system components against job requirements 1.5 Source accessories according to workplace procedures and to comply with workplace and task requirements 1.6 Determine location where specific items of accessories, apparatus and circuits are to be installed from job requirements 1.7 Obtain materials necessary to complete the work according to workplace procedures, and check against the job requirement 1.8 Source tools, equipment and testing devices needed to carry out the installation work, and check for correct operation and safety 1.9 Check preparatory work to ensure that it complies with workplace requirements
2. Install wiring systems	2.1 Follow workplace health and safety policies and procedures for installing electrical wiring systems 2.2 Select, fit, use and maintain personal protective equipment (PPE) applicable to the task 2.3 Install wiring systems to meet requirements without damage or distortion to the surrounding environment or services 2.4 Terminate accessories and connect wire as required to solenoids and controllers, according to manufacturer and workplace requirements 2.5 Obtain approval from appropriate personnel before implementing any contingencies 2.6 Undertake ongoing checks of the quality of work according to workplace procedures
3. Check and notify completion of work	3.1 Undertake final checks to ensure the installed wiring systems conform to requirements 3.2 Test system for correct operation 3.3 Report completion of work according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	- Interpret textual information from a range of sources, including manufacturer manuals and workplace procedures, to identify relevant information about extra low voltage wiring requirements - Interpret labels and signage to differentiate between extra low voltage and other electrical systems
Oral communication	Use clear language and standard industry terminology to coordinate work and report completion of work
Numeracy	Interpret calculated load, and size cables and wires

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCINF308 Install and terminate extra low voltage wiring systems	AHCINF304 Install and terminate extra low voltage wiring systems	Minor changes to application Major and minor changes to performance criteria Foundation skills added Major and minor edits to performance and knowledge evidence and assessment conditions	Not equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCINF308 Install and terminate extra low voltage wiring systems

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has installed and terminated extra low voltage wiring systems on at least two occasions and has:

- sized cables and wires to suit calculated load
- recognised and reported workplace health and safety hazards and used safe work practices
- applied workplace health and safety requirements applicable to working with extra low voltage systems, including fitted and used personal protective equipment (PPE)
- installed, checked and tested wiring systems
- reported completion of installation activities.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- basic electricity and electrical principles relating to extra low voltage wiring
- workplace policies and procedures relevant to installing extra low voltage wiring systems
- tools, equipment, materials and applications relevant to the industry sector
- computerised controller systems
- extra low voltage wiring systems testing equipment and procedures
- isolation and tagging procedures
- workplace requirements applicable to health and safety in the workplace for installing extra low voltage wiring systems, including appropriate use of PPE.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:

- a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - extra low voltage wiring tools, material and equipment
 - PPE applicable to installing extra low voltage wiring
- specifications:
 - workplace health and safety legislation, regulations, codes of practice and workplace procedures relevant to installing extra low voltage wiring
 - workplace documents, including workplace procedures, processes, instructions and job specifications relevant to installing extra low voltage wiring.

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

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