



Australian Government

AHCIRG328 Operate irrigation controller and sensor technology

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 4.0.

Application

This unit of competency describes the skills and knowledge required to operate irrigation controller and sensor technology as part of irrigation installation, construction and operation.

The unit applies to individuals who operate irrigation controller and sensor technology under broad direction and take responsibility for their own work.

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

Pre-requisite Unit

Nil

Unit Sector

Irrigation (IRG)

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. Prepare for work	1.1 Confirm activity to be undertaken, including identifying potential hazards and risks and implementing safe working practices to manage risks 1.2 Select required tools and equipment, and check for safe operation and accuracy 1.3 Select, fit and use personal protective equipment applicable to the task
2. Operate irrigation	2.1 Link valves to controllers by wiring or radio signals

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
controllers	2.2 Program controllers according to operating procedures 2.3 Operate controller according to site requirements 2.4 Troubleshoot controller and rectify cause of faults
3. Operate irrigation sensors	3.1 Link sensors to controllers by wiring or radio signals 3.2 Program controllers to monitor sensor 3.3 Operate and monitor accuracy and reliability of sensor control equipment, and adjust where necessary 3.4 Collect samples according to sampling techniques 3.5 Record and interpret readings and observations 3.6 Troubleshoot sensors and rectify cause of faults 3.7 Report discrepancies or malfunctions to management

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 to identify relevant and key information about workplace operations
Writing	Complete records of readings and observations legibly and accurately using correct technical terminology
Oral communication	Use clear language to report discrepancies or malfunctions
Numeracy	- Interpret the measurements of sample results - Make calculations to check the accuracy of program irrigation controllers and adjust electronic flow equipment
Navigate the world of work	Recognise and follow workplace requirements, including safety requirements, associated with own role and area of responsibility

Range of Conditions

This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Controllers must include at least 3 of the following:	• stand-alone • Bluetooth • wifi • remote radio controllers • multi-site central controllers.
Sensors must include at least 4 of the following:	• water meters • soil moisture and temperature sensors • air temperature sensors • weather stations • pump pressure sensors • rainfall sensors.

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCIRG328 Operate irrigation controller and sensor technology	AHCIRG325 Operate irrigation technology	Title updated Performance criteria clarified Foundation skills added Range of conditions added Assessment requirements updated	No equivalent unit

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 AHCIRG328 Operate irrigation controller and sensor technology

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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 operated irrigation controller and sensor technology on at least two occasions, and has:

- applied workplace health and safety requirements
- selected tools and equipment appropriate to the scope of works
- maintained and checked irrigation controller and sensor equipment for accuracy
- operated irrigation controllers and sensors
- checked the accuracy of controller and sensor equipment, and adjusted
- recorded the results of sampling and testing
- recorded observations and data.

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:

- workplace requirements applicable to health and safety in the workplace for operating irrigation controller and sensor technology, including working with extra low voltage wiring according to Australian Standards
- basic electrical testing procedures and safety practices
- irrigation controller and sensor operating and testing procedures
- environmental procedures for use, storage and recycling of electronic equipment and batteries
- data recording procedures.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - irrigation controller and sensor installation and operating equipment
 - irrigation controllers and sensors
 - personal protective equipment applicable to installing and operating irrigation controller and sensor technology
- specifications:
 - work instructions and workplace procedures applicable to operating irrigation controller and sensor technology
 - workplace requirements applicable to health and safety in the workplace for operating irrigation controller and sensor technology
 - Australian Standards applicable to working with extra low voltage wiring
 - irrigation controller and sensor operating and testing procedures
 - data recording procedures
 - environmental procedures for use, storage and recycling of electronic equipment and batteries
- relationships:
 - supervisor
- timeframes:
 - according to job requirements.

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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