



**Australian Government**

# **AHCIRG328 Operate irrigation controller and sensor technology**

**Release: 1**

# AHCIRG328 Operate irrigation controller and sensor technology

## 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<br>1.2 Select required tools and equipment, and check for safe operation and accuracy<br>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<br>2.3 Operate controller according to site requirements<br>2.4 Troubleshoot controller and rectify cause of faults                                                                                                                                                                                                                                                                       |
| 3. Operate irrigation sensors                    | 3.1 Link sensors to controllers by wiring or radio signals<br>3.2 Program controllers to monitor sensor<br>3.3 Operate and monitor accuracy and reliability of sensor control equipment, and adjust where necessary<br>3.4 Collect samples according to sampling techniques<br>3.5 Record and interpret readings and observations<br>3.6 Troubleshoot sensors and rectify cause of faults<br>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                    | <ul style="list-style-type: none"> <li>Interpret textual information from a range of sources to identify relevant and key information about workplace operations</li> </ul>                                            |
| Writing                    | <ul style="list-style-type: none"> <li>Complete records of readings and observations legibly and accurately using correct technical terminology</li> </ul>                                                             |
| Oral communication         | <ul style="list-style-type: none"> <li>Use clear language to report discrepancies or malfunctions</li> </ul>                                                                                                           |
| Numeracy                   | <ul style="list-style-type: none"> <li>Interpret the measurements of sample results</li> <li>Make calculations to check the accuracy of program irrigation controllers and adjust electronic flow equipment</li> </ul> |
| Navigate the world of work | <ul style="list-style-type: none"> <li>Recognise and follow workplace requirements, including safety requirements, associated with own role and area of responsibility</li> </ul>                                      |

## 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: | <ul style="list-style-type: none"> <li>• stand-alone</li> <li>• Bluetooth</li> <li>• wifi</li> <li>• remote radio controllers</li> <li>• multi-site central controllers.</li> </ul>                                                            |
| Sensors must include at least 4 of the following:     | <ul style="list-style-type: none"> <li>• water meters</li> <li>• soil moisture and temperature sensors</li> <li>• air temperature sensors</li> <li>• weather stations</li> <li>• pump pressure sensors</li> <li>• rainfall sensors.</li> </ul> |

## Unit Mapping Information

| Code and title current version                                   | Code and title previous version            | Comments                                                                                                                                   | Equivalence status |
|------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| AHCIRG328<br>Operate irrigation controller and sensor technology | AHCIRG325<br>Operate irrigation technology | Title updated<br>Performance criteria clarified<br>Foundation skills added<br>Range of conditions added<br>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>