



Australian Government

UEEIC0034 Set up industrial field control devices

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to set up an industrial field control device.

It includes identifying, setting up, testing and documenting industrial field control device. It also includes following design briefs, operating principles, interpreting device specifications, following manufacturer specifications and testing device operation parameters.

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

Pre-requisite Unit

Where prerequisite pathways have been identified, all competencies in the Common Unit Group must be have been completed plus all the competencies in one (1) of the identified Pathway Unit Group(s)

Common Unit Group

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEIC0020 Fault find and repair analogue circuits and components in electronic control systems

UEEIC0018 Diagnose and rectify faults in digital controls systems

UEEEL0019 Solve problems in direct current (d.c.) machines

UEEEL0021 Solve problems in magnetic and electromagnetic devices

and

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Electrical Pathway Group

UEEEL0003 Arrange circuits, control and protection for electrical installations

UEEEL0023 Terminate cables, cords and accessories for low voltage circuits

UEEEL0014 Isolate, test and troubleshoot low voltage electrical circuits

UEEEL0008 Evaluate and modify low voltage heating equipment and controls

UEEEL0009 Evaluate and modify low voltage lighting circuits, equipment and controls

UEEEL0010 Evaluate and modify low voltage socket outlets circuits

UEEEL0024 Test and connect alternating current (a.c.) rotating machines

UEEEL0025 Test and connect transformers

Instrumentation and Control Pathway Group

UEECD0045 Solve problems in multiple path extra-low voltage (ELV) a.c. circuits

UEEIC0047 Use instrumentation drawings, specifications, standards and equipment manuals

UEEIC0041 Solve problems in pressure measurement components and systems

UEEIC0038 Solve problems in density/level measurement components and systems

UEEIC0039 Solve problems in flow measurement components and systems

UEEIC0043 Solve problems in temperature measurement components and systems

UEEIC0029 Set up and adjust PID control loops

UEEIC0030 Set up and adjust advanced PID process control loops

UEEIC0048 Verify compliance and functionality of instrumentation and control installations

UEEIC0031 Set up and configure human-machine interface (HMI) and industrial networks

Competency Field

Instrumentation & Control

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Identify industrial field control device

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures are identified and applied
- 1.2** Hazards are identified, risks are assessed, and control

		measures implemented
	1.3	Industrial field control devices are determined from control system specifications and consultation with relevant person/s
	1.4	Work activities are planned to meet scheduled timelines in consultation with relevant person/s
	1.5	Tools, equipment and testing devices required for work are obtained in accordance with workplace procedures and checked for correct operation and safety
2 Set up industrial field control device	2.1	WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
	2.2	Industrial field control devices are set up and operated in accordance with manufacturer instructions
	2.3	Industrial field control devices are positioned and adjusted in accordance with operating principles manufacturer instructions
	2.4	Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
	2.5	Industrial field control devices are set up using sustainable energy principles without waste of materials, damaging apparatus, surrounding environments or services in accordance with workplace procedures
3 Test and document set-up of industrial field control device	3.1	WHS/OHS risk control measures and workplace procedures for carrying out the work are followed
	3.2	Operating anomalies are identified and corrected in accordance with workplace procedures
	3.3	Work completion is documented in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Setting up industrial field control devices must include at least four of the following:

- measurement/detection of flow
- temperature
- pressure
- density
- weight
- level
- smoke
- motion

Unit Mapping Information

This unit replaces and is equivalent to UEENEEI119A Set up industrial field control devices.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>