



Australian Government

UEEEEC0003 Assemble and set up basic security systems

Release: 1

UEEEEC0003 Assemble and set up basic security systems

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 assemble, set up and install electronic security system with up to 50 connected devices, typically used in single domestic and small commercial premises.

It includes working safely to industry standards, assembling and setting up wired and wireless security system, and connecting security system components.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, a relevant contract of training, such as an Australian apprenticeship, is required.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Pre-requisite Unit

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

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

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Prepare to assemble and set up wired and wireless security system

- 1.1** WHS/OHS requirements and workplace procedures for a given work area are identified and applied
- 1.2** Existing WHS/OHS risk control measures and workplace procedures are followed in preparation for work
- 1.3** Hazards which have not previously been identified are reported in accordance with workplace procedures and advice on risk control measures are sought from work supervisor
- 1.4** Nature, location and security system required is obtained from supervisor or other relevant person/s and/or workplace documentation to determine the scope and details of work to be undertaken
- 1.5** Advice is sought from work supervisor or other relevant person/s to ensure work is coordinated effectively with others
- 1.6** Security system and relevant materials required for work are determined and obtained in accordance with workplace procedures
- 1.7** Tools, equipment and testing devices needed to carry out the work are obtained and checked for correct operation and safety

2 Assemble wired and wireless security system

- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out work are followed
- 2.2** Circuits/machines/plant are checked and isolated in accordance with WHS/OHS workplace requirements and procedures
- 2.3** Security controllers, access, intrusion and surveillance devices are positioned for optimum performance in accordance with workplace procedures and within limitations imposed by customers and regulations

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|--|---|
| | <p>2.4 Security system components are installed straight and square in the required locations and within acceptable tolerances in accordance with workplace procedures</p> <p>2.5 Cables and conductors are terminated at security system components in accordance with manufacturer specifications and regulatory requirements</p> <p>2.6 Unplanned events are referred to supervisor for directions in accordance with workplace procedures</p> <p>2.7 Security installation is carried out without waste of materials or damage to apparatus, circuits or the surrounding environment using sustainable energy practices</p> |
| 3 Complete and document security systems installation | <p>3.1 WHS/OHS risk control measures and workplace procedures for work completion are followed</p> <p>3.2 Worksite and equipment are cleaned and made safe in accordance with WHS/OHS requirements and workplace procedures</p> <p>3.3 Security system installation is documented in accordance with regulatory requirements and workplace procedures</p> |

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.

Installing security systems must include the following:

- one wired and one wireless security system

Security systems must consist of:

- a controller and access device and at least two other different connected devices both wired and wireless

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH150A Assemble and set up basic security systems.

Links

Companion Volume implementation guides are found in VETNet - -

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

Assessment Requirements for UEEEC0003 Assemble and set up basic security systems

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - applying safe working practices
 - using risk control measures
 - checking tools, equipment and testing devices for correct operation and safety
 - checking circuits/machines/plant are isolated
 - terminating cables and conductors safely
- applying sustainable energy principles and practices
- assembling and setting up wired and wireless security systems, including:
 - placing and securing devices and security system components accurately
 - terminating cable and conductors correctly
 - completing and documenting installation
 - dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
 - installing system without waste or damage
- communicating effectively with relevant stakeholders
- complying with relevant electrical regulations
- complying with relevant security regulations and legislations
- consulting with work supervisor
- determining the nature, location and security system required for work
- maintaining a clean worksite and equipment
- obtaining correct system and relevant materials.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- closed-circuit television (CCTV), including application, types of cameras and monitors, switching methods, earthing and ambient lighting
- communication systems, including:
 - Ademco contact ID
 - dialler systems
 - panel to base systems
 - relevant wired and wireless communication methods
- circuit arrangements, including:
 - end line resistors and a range of typical resistor values used in alarm systems
 - wiring of a detector with split end of line (EOL) resistors
 - zone doubling and open circuits and short circuits
- relays, including normally open and normally closed types, transistor as a switch, wiring diagram for a relay connected to an open collector output on an alarm panel, and typical uses for a relay type output
- electro-mechanical detectors, including:
 - active and passive infrared beams
 - reamed magnetic reed switches and optical fibre cable
 - strain system
 - types: ultrasonic, microwave, glass break and smoke
- effective communication techniques
- locations for accessories to be installed
- positioning of security controllers, access, intrusion and surveillance devices for optimum performance
- mechanical detectors, including pressure pads, trip wires, window tape, screens, switches and vibration
- relevant customer-imposed limitations
- relevant electrical industry standards, codes of practice and regulations
- relevant electrical regulations and legislations
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant security regulations and legislation, including Acts and industry standards
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- relevant workplace referral and reporting procedures
- security panels, including:
 - batteries and locks commonly used in the security industry
 - features, applications, types, and maintenance of commonly used panels
 - operation of programmable and non-programmable panels
 - panel to base communication systems

- power and sound sources used with security alarms
- security controllers, access, intrusion and surveillance devices, including:
 - mechanical detectors
 - electro-mechanical detectors
 - CCTV
 - communication systems
- security system assembly and set-up
- security system components and accessories, including:
 - relays
 - security panels
- techniques to check if circuits/machines/plant are isolated
- techniques to check if tools, equipment and testing devices are operating correctly and safely
- techniques to install security system without damage
- techniques to terminate cable and conductor
- tools, equipment and testing devices
- types of security systems.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

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