Draft 0.1

This is our work-in-progress update to CPPSEC3042A Identify and diagnose CCTV equipment and system fault: https://training.gov.au/Training/Details/CPPSEC3042A.

We are working with industry experts to ensure the updated unit:

- meets current and anticipated industry needs
- complies with current Standards for Training Packages
- is written in clear understandable English.

Information on our training package review and development process is available here: http://www.artibus.com.au/project-stage.

Summary of changes from current endorsed unit

Code and title changed
CCTV terminology updated to VSS (video surveillance systems)
Elements and performance criteria redeveloped to simplify and better articulate unit structure – new element/PCs added for planning and organising work tasks
Required knowledge updated and rationalised to add specificity and relevance
Internet Protocol networking knowledge/skills introduced

Updates Feb 2019:
Privacy requirements included in knowledge evidence

Updates May 2019:
Minor updates to apply edits and incorporate feedback, eg to Australian Standards references, licensing statement, assessment conditions info, knowledge, implementation guide links etc

Post EE:
Minor edits
Foundation skills modified to clarify requirements

Unit of Competency CPPSEC3042 Diagnose faults in video surveillance systems and equipment

Application

This unit specifies the skills and knowledge required to diagnose faults in video surveillance systems (VSS) and equipment. VSS is a surveillance system capable of capturing images and videos that can be compressed, stored or sent over communications networks, and includes closed circuit television (CCTV) and audio systems. The unit includes applying methodical diagnostic procedures, testing suspected fault scenarios, and assessing test results, historical information and operational data to diagnose faults and recommend options for rectification. This work applies in extra low voltage environments as defined in Australian Standard *AS/NZS 2201.1:2007 Intruder alarm systems – Client's premises – Design, installation, commissioning and maintenance* (AS/NZS 2201).

A person working at this level would be expected to take responsibility for organising and completing tasks assigned to them without close supervision.

Licensing, legislative or certification requirements apply to advising on, supplying, installing, maintaining, monitoring, repairing and servicing security equipment in some states and territories. For further information, check with the relevant regulatory authority.

Prerequisite Unit

None.

Elements and Performance Criteria

1. Prepare to diagnose VSS and equipment faults.	1.1	Review work instructions to confirm client requirements and diagnostic timeframes.
	1.2	Review AS/NZS 2201 to understand regulatory requirements associated with diagnosing VSS and equipment faults and apply to work instructions.
	1.3	Use questioning and active listening to gather information on type of VSS and equipment and extent of fault.
	1.4	Review and follow workplace policies and procedures including work health and safety (WHS) when carrying out work tasks.
2. Plan and organise work tasks.	2.1	Plan and prioritise work tasks allowing sufficient time to meet work instructions.
	2.2	Select and organise required materials, tools and equipment including personal protective equipment and check for safe and correct operation.
	2.3	Arrange access to VSS and equipment in consultation with relevant persons.
	2.4	Identify hazards in the work area and apply risk control measures.
3. Conduct VSS and equipment testing and diagnostic	3.1	Use safe work practices when working with electronic equipment and cables according to WHS requirements.
	3.2	Isolate VSS and equipment according to WHS requirements.

procedures.	3.3	Confirm normal performance of VSS and equipment against specification schedules.
	3.4	Inspect and check VSS and equipment components and test operation according to manufacturers' instructions.
	3.5	Methodically apply diagnostic methods using measurements and estimations of VSS and equipment operating parameters.
	3.6	Test suspected fault scenarios to identify source of system problems.
	3.7	Assess test data, site variables, operational and historical information to support fault diagnosis.
	3.8	Diagnose fault or seek assistance from relevant persons to meet work instructions.
4. Recommend options for fault rectification and complete documentation.	4.1	Document diagnosed faults and options for fault rectification that are supported by verifiable data according to workplace and regulatory requirements.
	4.2	Check tools and equipment for faults, wear or damage and rectify or report problems.
	4.3	Clean and restore work area and remove waste caused by work tasks.

Foundation skills

Candidates require:

- reading skills to interpret key requirements of:
  - circuit diagrams
  - plans and specifications when locating system and equipment components
  - Australian standards and manufacturers' instructions.

Unit Mapping Information

Supersedes and equivalent to CPPSEC3042A Identify and diagnose CCTV equipment and system fault.

Links

Companion Volume Implementation Guide:
https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b

Assessment Requirements for CPPSEC3042 Diagnose faults in video surveillance systems and equipment

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by conducting testing and diagnostic procedures on two different video surveillance systems (VSS) and equipment to diagnose a minimum of three faults.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- workplace policies and procedures that ensure compliance with legislative and regulatory requirements when diagnosing faults in VSS and equipment:
    - licensing requirements and limits of own authority
    - privacy requirements
    - reporting and documentation
    - requirements for complying with Australian Communications and Media Authority cabling rules
    - work health and safety
- application of *AS/NZS 2201.1:2007 Intruder alarm systems – Client's premises – Design, installation, commissioning and maintenance* (AS/NZS 2201) when diagnosing security equipment and system faults at client premises
- cable identification methods and techniques
- documentation to be completed when diagnosing faults in VSS and equipment
- keypad and control panel types and functions for a range of VSS and equipment
- materials, tools and equipment including personal protective equipment (PPE) used when diagnosing faults in VSS and equipment
- methods for ensuring IP networked systems and equipment are properly secured
- operational parameters and diagnostic testing procedures for a range of VSS and equipment:
    - audio systems
    - cameras: pan-tilt-zoom and infra-red sensitive
    - image presentation: display type, real-time surveillance, resolution and number of images
    - recording: image compression, frame rates, resolution, storage capacity, basic metadata, playback and image export
    - system integration
- operational principles of data transmission networks
- types and functions of computer software associated with VSS and equipment
- types of earthing systems used in electrical installations
- types of electrical connections and circuits encountered when diagnosing faults in VSS and equipment, and circuit protection requirements

- typical hazards encountered when diagnosing faults in VSS and equipment and the control measures for each:
    - confined spaces
    - electrical
    - hazardous materials and chemicals
    - people in the work area
    - power tools
    - vermin
    - work at heights.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

All individuals engaged by a licensed RTO for security licensing purposes must hold both a security trainers licence (where such a licence exists within the relevant jurisdiction) and the licence for performing the security activities for which the individual is providing training or assessment. Regulators may impose other assessor conditions to meet jurisdictional assessment requirements.

Assessment must be conducted in the workplace or in a simulated workplace environment. Candidates must have access to:

- workplace policies and procedures, work instructions, documentation, VSS and equipment, PPE, tools and materials required to achieve the performance evidence
- VSS and equipment information to support diagnostic activities
- AS/NZS 2201.

Links

Companion Volume Implementation Guide:
https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b