

Install electronic security systems

Overview

This NOS sets out the skills, knowledge and understanding for you to install equipment for electronic security systems and restore sites.

This NOS covers the following activities:

1. Prepare to install electronic security systems
2. Install cabling, containment and system components
3. Inspect installation and fully test system operation
4. Restore sites after installing transmission and system components

Performance criteria

You must be able to:

Prepare to install electronic security systems

- P1 make sure you have the information you need to install containment, cabling and system components
- P2 confirm that you have all relevant resources to complete the installation
- P3 confirm that all necessary tools are available
- P4 safely identify the presence of electrical supply, into and inside, electronic security systems equipment
- P5 identify the means for safe isolation of electrical supply systems

Install containment, cabling and system components

- P6 fit all containment, cabling and system components in accordance with the specification to optimise operation and maintenance
- P7 use suitable fixing devices and methods that are appropriate to site and building materials
- P8 make sure that installed containment, cabling and system components are free from damage or internal obstruction
- P9 avoid unnecessary damage to building structures and surfaces
- P10 comply with relevant health and safety requirements while installing
- P11 use the correct tools and equipment to position and mount equipment safely

Inspect installation and fully test system operation

- P12 make sure that installed containment, cabling and system components are free from damage or obstruction
- P13 confirm containment, cabling and system components meet their required operating performance, using appropriate testing methods
- P14 label installed system components in line with the specification
- P15 comply with relevant health and safety requirements while installing containment, cabling and system components
- P16 test the full system performance against the operational

requirement

P17 record results using appropriate documentation

Restore sites after installing transmission and system components

P18 close and seal any openings made, securely in line with relevant codes of practice and suppliers' guidelines

P19 make good any damage to building structures or surfaces in accordance with the specification

P20 report the details to the relevant person of any damage that you cannot repair

P21 remove installation tools and equipment from sites after use, reporting the details to the relevant person of any that are unserviceable

P22 return spare or reusable equipment and materials to their designated locations

P23 dispose of waste, debris and surplus materials in line with approved procedures and relevant regulations, standards and codes of practice

P24 make permanent any temporary site arrangements on completion of installation work

P25 comply with relevant health and safety requirements while restoring installation sites

Knowledge and understanding

You need to know and understand:

Legal and Organisational requirements

- K1 current relevant legislation, regulation, standards, codes of practice and guidelines relating to installing electronic security systems
- K2 current relevant legislation, regulation, standards, codes of practice and guidelines relating to handling waste or debris material
- K3 why it is important to dispose of waste, debris and surplus material safely and in line with the relevant regulations, standards and codes of practice

Prepare to install electronic security systems

- K4 how to relate physical locations for containment, cabling and system components to technical documents
- K5 how you are going to install containment, cabling and system components, particularly anticipating potential problems
- K6 the limits of your authority and responsibility, and how to get help when you need it
- K7 why it is important to check the safe and correct operation of tools and equipment, how to do this and how to deal with any that do not meet requirements
- K8 the capabilities and limitation of the tools and equipment that you use, and why it is important to use the correct tools and equipment
- K9 what documents you need to install systems and how to use them
- K10 why you need to identify the presence of electrical supply and how it can be isolated safely

Install containment, cabling and system components

- K11 how to relate equipment and their physical locations to technical documents
- K12 the different types of fixing for containment, cabling and system components

K13 the different types and properties for containment, cabling and system components

K14 the properties of building materials and how to fit equipment

K15 how to safely handle equipment during installation

Inspect installation and test system operation

K16 why it is important to comply with segregation requirements (for power and signalling)

K17 how to test the system and all components against their required operating performance and what to do when these requirements are not met

K18 Why it is important that installed system and system components are free from damage or obstruction

K19 How to identify and where to label system components in line with the specification

K20 Why it is important to comply with relevant health and safety requirements while installing containment, cabling and system components

K21 How and why it is important to test and record against appropriate documentation, drawings, specification and operational requirement

Restore sites after installing transmission and system components

K22 why you must remove all unwanted items from sites after installation of equipment is complete

K23 the house-keeping requirements at the sites where you install equipment

K24 why it is important to dispose of waste, debris and surplus material safely and in line with the relevant regulations and codes of practice

K25 methods of repairing typical building surfaces

K26 how and why it is important to close and seal any openings made, securely in line with relevant codes of practice and suppliers' guidelines

K27 why it is important to report the details to the relevant person of any damage that you cannot repair

K28 why it is important to comply with relevant health and safety

requirements while restoring installation sites

Scope/range

Competency must be demonstrated in two of the seven areas including at least one of the core areas:

Core areas

- Intruder
- Fire Alarm
- CCTV
- Access Control

Other areas

- Nurse Call
- EAS Systems
- Cloud Based System

Glossary

In these National Occupational Standards;

containment: For example (but not exhaustive) basket; conduit; ducting; ceiling voids; trays; surface mounted; catenaries

Electronic security systems: a generic term that includes: intruder, fire, cctv, access, remote monitoring systems and other types of protective installations. It also encompasses the integration of existing and new systems.

electrical supply systems: supply to the system components, such as primary and secondary supplies

sites: premises of installations. For example (but not exhaustive) commercial; industrial; retail; domestic; governmental

specification: the specific detail containing design, installation, commissioning or maintenance requirements

systems: a set of components working together as an interconnecting network. For example (but not exhaustive) new installations; extensions; modifications

transmission: the means by which system components communicate. This includes, for example: wired, wireless, Bluetooth, networking

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