

SFJ ZI05

Install technical support systems and associated equipment



Overview

This unit covers planning, preparing, and installing technical systems and equipment.

There are four elements

1. Plan and prepare the installation of technical systems and associated equipment
2. Install specified technical systems and associated equipment
3. Restore location site and organise clearance of waste, surplus materials and equipment
4. Demonstrate the use of equipment and hand over the installation

Performance criteria

Plan and prepare the installation of technical systems and associated equipment

You must be able to:

- P1 determine the type of installation to be carried out and identify resource needs and limits from the feasibility study
- P2 identify and requisition all the requirements for the installation
- P3 identify and confirm the characteristics of the site which affect the installation
- P4 define the schedule of work and communicate this to all relevant parties
- P5 co-ordinate and adjust the schedule of work as required
- P6 complete all necessary documentation accurately and check all authorisations are correct
- P7 assemble equipment safely and securely and check that it is fully functional
- P8 obtain the ancillary materials required to support the installation

Install specified technical systems and associated equipment

You must be able to:

- P9 complete installation work using appropriate tools and techniques
- P10 secure installed devices by concealment and fixing methods appropriate to the surfaces and structures of the premises
- P11 carry out work taking full account of other activities on the site and customer's requirements
- P12 make suitable modifications to optimise the performance of the installed technical equipment
- P13 implement contingency plans to cope with events which affect the way in which the installation can be carried out
- P14 check that the installation complies with the relevant authority, standards and Codes of Practice
- P15 observe confidentiality and covertness as agreed with the customer
- P16 follow appropriate health and safety requirements for the work being carried out
- P17 secure installed devices against loss, damage and compromise
- P18 ensure that the relevant legal authority is in place
- P19 complete relevant documentation accurately, comprehensively and legibly

Restore location site and organise clearance of waste, surplus materials and equipment

You must be able to:

- P20 seal any openings, cable routes and concealments and make good all surfaces and other damage

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- P21 remove and dispose of waste from the site in an approved manner
- P22 dismantle and remove installation and excess equipment safely and correctly
- P23 record damage to the equipment and label and report defective components to the appropriate person(s)
- P24 return installation and excess equipment to designated locations in accordance with the schedule and stock control
- P25 observe confidentiality and discretion as agreed with the customer
- P26 follow appropriate health and safety requirements for the work being carried out

Demonstrate the use of equipment and hand over the installation

You must be able to:

- P27 demonstrate how to operate the equipment and the facilities and capabilities of the equipment safely
- P28 perform the demonstration to the users in an appropriate manner, pace and style
- P29 provide sufficient, clear and accurate information to answer users questions in an appropriate manner, pace and style
- P30 prepare and supply relevant information and documentation relating to the equipment in a suitable format for the user
- P31 programme the equipment
- P32 explain the maintenance and servicing procedures and obligations to the user

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Knowledge and understanding

You need to know and understand:

Legal and organisational requirements

- K1 your responsibilities under current legislation and regulations and the implications of non-compliance
- K2 when and why authorities and licences are needed and how to obtain these
- K3 the statutory requirements that apply to the site and systems
- K4 the importance of work permits and safe working practices
- K5 how to minimise the risks in the operation

You need to know and understand:

Effective communication

- K6 how to communicate effectively and the value and importance of effective communication
- K7 the lines of communication to other people and how and when to use them

You need to know and understand:

Planning and preparing installation

- K8 the importance of, and methods used to ensure the security of, the operation
- K9 how to develop an installation plan and how to schedule work
- K10 how to determine the requirements relevant to an installation and to the site, including the customer's requirements
- K11 how to interpret technical specifications
- K12 the safety and environmental requirements of complex systems and equipment
- K13 the resource requirements of the type of installation to be completed
- K14 contacts for the various site requirements
- K15 the location of services

You need to know and understand:

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- K16 the types and uses of hand tools, power tools, and fixing devices and personal protective equipment
- K17 the types and application of containment and fixing methods
- K18 the consequences of failure to observe confidentiality
- K19 how electrical theory impacts on installations
- K20 the environmental factors which affect the installation
- K21 how to ensure equipment access and what maintenance requirements apply
- K22 how to protect equipment - physical and environmental
- K23 the types of power systems available and their usage

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You need to know and understand:

Restoring the site

- K24 the importance of installation documentation: work schedules, system specifications and how to use them
- K25 why it is important to restore the location site and 'make good' all surfaces and damages
- K26 why it is important to store materials, plant and tools safely and securely
- K27 why it is important to dispose of waste safely and securely
- K28 what operational requirements apply and how they affect the restoration of the site

You need to know and understand:

Demonstrating the use of equipment

- K29 how to operate the equipment; the facilities and capabilities of the equipment
- K30 what facilities are available to users, both standard and extra
- K31 what the specific user requirements are regarding the operation of the equipment
- K32 demonstration techniques
- K33 how to prepare and provide documentation relative to the equipment and product to be recorded
- K34 the requirements of enquiry recording
- K35 how to establish and maintain the chain of evidence of the recorded product

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Scope/range related to performance criteria

Plan and prepare the installation of technical systems and associated equipment

- 1 type of installation
 - 1.1. initial system
 - 1.2. additional units
 - 1.3. new site
 - 1.4. existing site
- 2 installation requirements
 - 2.1. customer
 - 2.2. safety
 - 2.3. manufacturers
 - 2.4. statutory
 - 2.5. covertness
- 3 characteristics
 - 3.1. safety
 - 3.2. environmental
 - 3.3. access
 - 3.4. services
 - 3.5. security
- 4 types of site
 - 4.1. domestic
 - 4.2. retail
 - 4.3. commercial
 - 4.4. industrial
 - 4.5. public premises
 - 4.6. private premises
 - 4.7. rural
 - 4.8. urban
 - 4.9. body worn
 - 4.10 transportation

Install specified technical systems and associated equipment

- 5 concealment methods
 - 5.1. overt
 - 5.2. covert-hidden
 - 5.3. built in
 - 5.4. covert-disguised
 - 5.5. designed in

- 6 fixing methods
 - 6.1. magnetic
 - 6.2. interference
 - 6.3. mechanical
 - 6.4. pressure
 - 6.5. catenary
 - 6.6. adhesive
 - 6.7. direct attachment to multi surfaces
 - 6.8. combinations of the previous methods
- 7 site
 - 7.1. domestic
 - 7.2. retail
 - 7.3. commercial
 - 7.4. industrial
 - 7.5. public premises
 - 7.6. private premises
 - 7.7. rural
 - 7.8. urban
 - 7.9. body worn
 - 7.10 transportation
- 8 surfaces and structures
 - 8.1. composite block
 - 8.2. stud partitioning
 - 8.3. brick
 - 8.4. board
 - 8.5. concrete
 - 8.6. metal
 - 8.7. wallpaper
 - 8.8. plastic
 - 8.9. timber
- 9 contingencies
 - 9.1. delays
 - 9.2. weather
 - 9.3. costs of work
 - 9.4. operational requirements

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Restore location site and organise clearance of waste, surplus materials and equipment

10 site

- 10.1. domestic
- 10.2. retail
- 10.3. commercial
- 10.4. industrial
- 10.5. public premises
- 10.6. private premises
- 10.7. rural
- 10.8. urban
- 10.9. body worn
- 10.10. transportation

11 equipment

- 11.1. plant
- 11.2. unused materials
- 11.3. access equipment

Demonstrate the use of equipment and hand over the installation

12 documentation

- 12.1. technical literature
- 12.2. handbooks
- 12.3. operating manuals
- 12.4. operating instructions

13 demonstration

- 13.1. hands on
- 13.2. explanation

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