SPECIFICATION - LEVEL 3 NETWORK CABLE INSTALLER v1.2 (ST0485)

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Introduction

The Network Cable Installer Level 3 apprenticeship develops the competence required to install, test, and certify copper and fibre network cabling infrastructure in a range of environments including commercial premises, data centres, and industrial sites. The role involves working to recognised industry standards and ensuring compliance with health and safety requirements, supporting the UK's digital infrastructure.

Key Information	
Name	Network Cable Installer ST0485
Level	3
Duration	15 months on-programme, 3 months EPA window
Funding Band	£11,000
Prerequisites and Entry Requirements	Before final assessment of the qualification, the Learner must be employed in a relevant role, meet Gateway requirements before taking the End-Point Assessment. have completed a portfolio of evidence and, if applicable, have passed the required Functional Skills. There are no mandatory qualifications required for this this End-Point Assessment.
Methods of Assessment	There are two assessment methods, practical demonstration in an simulated environment, professional discussion (Underpinned by a portfolio of evidence).
Simulated Assessment	The practical demonstration and questioning will take place in a simulated environment selected by the EPAO. This may include the EPAO's premises, a training provider's premises, an employer's training facility, a test centre, or another suitable simulated environment.
Grading	Learners will be assessed across the 2 assessment components and awarded a grade of Fail, Pass, or Distinction. The overall result from each assessment method is combined to decide the overall grade of a Fail, Pass, Merit or Distinction. Grading criteria are outlined in the End-Point Assessment Plan and associated guidance documents.
Link to assessment plan	Network cable installer / Skills England

End-Point Assessment Objective

The End-Point Assessment (EPA) confirms that the apprentice has achieved the required competence to work independently as a Network Cable Installer, demonstrating the ability to install, test, and certify copper and fibre network cabling systems safely, to industry standards, and in line with health and safety requirements across various work environments.

Programme Structure

Throughout the programme, apprentices will gain practical skills and underpinning knowledge in a variety of settings. They will be employed in a relevant role for a minimum of 15 months, during which they will compile a portfolio of evidence with support from their assessor. The assessor will monitor progress against the standard to ensure the apprentice is fully prepared for the EPA.

Available Support

Sample assessment materials for the practical demonstration and professional discussion are available to approved training providers to support learner preparation and ensure consistency in delivery.

KSB Mapping Table

Knowledge	Assessment Method
K1 Design specifications, calculate time factors and documentation including floor plans, patch lists, bills of materials, rack face and layout plans. Ensure necessary tools and quantity of equipment required for tasks.	Practical demonstration
K2 Principles associated with the transmission of digital information over copper cable networks. The impact incorrect work has on the communication link. Ohms Law and the changes in the electrical characteristics of copper cable caused through handling and installation irregularities.	Professional discussion
K3 Principles associated with the transmission of digital information over fibre cable networks and the impact that your workmanship has on the communication link. Understands the principles of light propagation and has a fundamental knowledge of attenuation within the fibre channel.	Professional discussion
K4 Components of a structured cabling infrastructure and the relationship between campus, building and floor distributors, with relevance to the cable installation plan. Fundamental elements of IT network architecture, including the range of cable types and networking equipment including routers and switches.	Practical demonstration
K5 Test parameters for copper and fibre cable certification in accordance with industry standards such as BSEN 50346- information technology-testing of installed cables, the routine for test equipment service and calibration.	Practical demonstration
K6 Health and Safety at work legislation whilst working in the network cable installation sector.	Practical demonstration
K7 Health and safety risk associated with carrying out cable installation, who might be affected, and what actions can be taken to mitigate the risk.	Professional discussion
K8 Requirements to comply with national and international standards for example British standards institute BSEN 50173-series, BSEN 50174-series, BS 7671, and BS6701. The importance of following manufacturers' best-practice guidelines.	Professional discussion
K9 Criteria that network components will be inspected against. The impact of failing to meet required quality standards.	Professional discussion
K10 The structures and roles of personnel involved in the project, who they need to communicate with and for what reasons.	Professional discussion

K11 Asbestos Containing Materials ACMs. Actions to be taken and dangers associated with, if ACMs are identified whist installation work is being carried out.	Professional discussion
K12 Electricity at work act. How work carried out during network cable installation tasks are governed by supporting standards for example BS7671.	Professional discussion
K13 Legislative requirements under the working at height regulations, including personal competence and inspection regimes and the safe use of mobile access towers.	Professional discussion
K14 Effects of emerging technologies on media selection, installation practices and additional testing requirements.	Professional discussion
K15 Structural components of equipment racks and or cabinets. How to assemble them to meet the requirements on the infrastructure design.	Practical demonstration
K16 Requirement for the segregation of data cables from electrical cables in accordance with BSEN 50174. Media that supports other data services for example, telephone, security, alarms and AV systems. The precautions to be taken to prevent interference or damage to the systems.	Professional discussion
K17 Maintain accurate documentation and the efficient use of resources. The depth of information and sustainability required for successful completion and handover to the customer.	Professional discussion
K18 Principles involved in the maintenance of cyber security, such as workplace processes implemented by the organisation for the protection of data.	Practical demonstration
K19 Workforce management systems and the workflow functionality.	Professional discussion
K20 Requirements of the new roads and streetworks act and associated codes of practice. When legislation applies, and the levels of authorisation required to perform works.	Professional discussion
Skill	Assessment Method
S1 Install copper cabling components for Local Area Networking (LAN). Carry out maintenance tasks on copper cable networks. Identify, locate and repair common faults.	Practical demonstration
S2 Install fibre optic cabling components for Local Area Networking LAN and Wide Area Network WAN infrastructure. Identify, locate and repair common faults.	Practical demonstration
S3 Conduct testing on copper cabling in accordance with equipment manufacturer's procedures, compliant to industry standards, interpret results and rectify failures.	Practical demonstration
S4 Carry out testing of fibre optic cabling using an optical loss test set, Tier 1 and fibre inspection tool in accordance with equipment manufacturer's procedures, and compliant to industry standards.	Practical demonstration

S5 Analyse copper and fibre test results and provides certification to the customer.	Practical demonstration
S6 Prepare, constructs and installs telecommunications equipment cabinets, either pre-built or from flat-pack. Arrange and install fixtures and fittings for the intended use. Selects network equipment components for installation into cabinets, differentiating between switches and routers.	Practical demonstration
S7 Work at height in a safe manner.	Professional discussion
S8 Work in confined spaces by implementing health and safety procedures, using and maintaining personal protective equipment.	Professional discussion
S9 Apply health and safety working practices to keep themselves and others safe.	Practical demonstration
S10 Analyse plans, make decisions about equipment types and quantity, and predict time frames.	Practical demonstration
S11 Assess the requirements for cable containment by type and size to build a pathway suitable for routing data cables. Install containment systems, using tools and methods for cutting, shaping and mounting tray, basket trunking and conduit.	Practical demonstration
S12 Install end-point equipment using fixings and media.	Practical demonstration
S13 Interpret the customer statement of requirements to determine the quantity and quality of components to be used in the cable network.	Practical demonstration
S14 Quantify equipment requirements and timelines for tasks to be carried out.	Professional discussion
S15 Communicate with key stakeholders in the customer's organisation including the customer, the construction design and management CDM co-ordinator, the project manager and the information technology IT security officer.	Professional discussion
S16 Maintain cyber security, applying processes and procedures aimed at protecting data confidentiality.	Practical demonstration
Behaviours	Assessment Method
B1 Works professionally, taking initiative and acting with an ethical approach.	Professional discussion
B2 Prioritise the safety of self and others.	Practical demonstration
B3 Self-motivated and able to work alone or as part of a team. The ability to work with colleagues whilst contributing to a supportive and inclusive, diverse workplace, respectful of different views.	Professional discussion
B4 Be organised and apply effective time management to meet deadlines.	Professional discussion