

ELECTROTECHNICAL CERTIFICATION SCHEME

Administered by the Joint Industry Board for the Electrical Contracting Industry
Affiliated to the Construction Skills Certification Scheme

DATACOMMS DISCIPLINES JOB DESCRIPTIONS

TRAINEE DATACOMMS SPECIALIST

Duration - whatever it takes to cover skills required to achieve Datacomms Specialist status. Not less than two years duration if no previous industrial experience, but can be done in less time if over the age of 20 and has other relevant experience.

Must have current basic health and safety training to undertake any task prior to commencement of work. (ie IOSH, JIB or other recognised H&S Training Course)

An appropriate course of training should lead to successful attainment of Datacomms Specialist together with achievement of S/NVQ Level 2 in Structured Cabling Systems.

DATACOMMS SPECIALIST

Operative must be able to demonstrate that they have successfully either undertaken a Datacomms Specialist apprenticeship or have 2 years experience as follows:

Skills

Capable and demonstrable experience with:- installing cable trays, ladder rack metal and plastic trunking, metal and plastic dado trunking.

Fitting out enclosures with structured cable termination equipment (connection units, hubs, switches, routers, patch panels, etc.). Installing panel trunking and other panel cable support systems.

Installing structured cabling including UTP, STP, FTP, Co-AX, general common cables, single-mode fibre and multi-mode fibre cables.

Capable of installing earthing and bonding cables.

Note: Termination and testing is **not** undertaken by a Datacomms Specialist.

Technical Knowledge

Standards

A working knowledge of the installation and associated documentation aspects of BS EN 50174 Parts 1 & 2, BS EN 50310, BS EN 50346, BS 6701 and also ISO 11801.

An awareness of the existence of other standard bodies; USA TIA, IEEE, IEE

Documentation

Must be capable of reading installation drawings including:

Plans, cable routing, cable schedules, termination schedules, MTO, SLDs

Must be capable of marking aforementioned drawings 'as built'.

Good knowledge of the various parts of a structured cabling installation including comms. room, horizontal, backbone, work area, cross connecting, termination points, workstation, etc.

Qualifications

Must pass S/NVQ Level 2 in Structured Cabling Systems

Health & Safety

Basic Health & Safety training as the following NET modules or equivalent:-

Unit NET 17: Implement Safe Site Working Practices

Unit NET 81: Maintain a Healthy and Safe Working Environment

Must also possess a current basic IOSH, JIB or equivalent H&S Certificate.

ADVANCED DATACOMMS SPECIALIST

Must possess Datacomms Specialist competency level plus 2 years of demonstrable experience of carrying out Advanced Datacomms Specialist work.

Skills

Capable and demonstrable experience on:- installing cable trays, ladder rack, metal and plastic trunking, metal and plastic dado trunking, conduit (metal and plastic).

Fitting out enclosures with structured cable termination equipment (connection, hubs, switches, routers, patch panels, etc.), installing panel trunking and other panel cable support systems.

Installing, terminating and testing structured cabling including UTP, STP, FTP, Co-ax, general common cables. Installing single mode fibre and multimode fibre cables. (including various splicing techniques).

Installing and testing wireless LAN systems (including site survey).

Be capable of fault finding on installed aforementioned cabling system.

Installing and testing earthing and bonding connections.

Must know basic electrical terminology such as Volts, Amps, Watts, VA and know how to calculate total current and power

Capable of calculating fuse size and selecting correct type.

Installing and testing 240V flexible cables, plug tops and wiring from flex/fused outlets to communications equipment and knowing when 13A is not enough.

General building skills, cutting holes, making good, installing fire seals, breaking and making good existing fire seals, etc.

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May have additional skills such as jointing, termination, testing and fault finding on fibre optic cables, other electrical skills, etc.

Technical Knowledge

Standards

A working knowledge of the installation aspects of the following standards; BS EN 50173, BS EN 50174, Parts 1 & 2, BS EN 50310, BS EN 50346, ISO 11801, BS 6701

An awareness of the existence and general scope of the following standards; TIA 586 A/B & other TIA standards, IEEE, IEE Wiring Regulations

Documentation

Read installation drawings including plans, cable routing, cable schedules, termination schedules, MTOs, SLDs

Read and understand technical manuals and other technical publications

Must be able to modify documents to 'as built'.

Systems

Intimate knowledge of the various parts of a structured cabling installation including comms rooms, horizontal, backbone, work area, cross connects, termination points, workstation, etc.

General terminology including bandwidth, MHz, BPS, cross talk, modulation, dB, etc.

Qualifications

Must pass exam CGLI 3666./SQA Modules

Must pass S/NVQ Level 3 in Structured Cabling Systems.

Health and Safety

Basic Health & Safety training as the following NET modules or equivalent:-

Unit NET 17: Implement Safe Site Working Practices.

Unit NET 18: Ensure Safe Data Site Working.

Unit NET 81: Maintain a Healthy and Safe Working Environment.

Must also possess a current basic IOSH, JIB or equivalent H&S Certificate.

Must know how to apply EAWR 1989, 22-29 & 31.

Must know IEE Wiring Regulations necessary for the data cabling industry.

Must know Construction Industry Regulations.

This competency level may be awarded to an employee who has Advanced Datacomms Specialist and sufficient experience to meet the above requirements.

Must be capable of demonstrating extensive experience in Health and Safety matters pertaining to the construction industry relating to I.T. Network installation and possess a current IOSH, JIB or other recognised H & S certificate.

DATACOMMS ENGINEER

Must be at least 27 years of age.

Operatives can be either a Datacomms Technician who can demonstrate the skills listed below or from an academic background i.e. Hons. Degree, HNC/HND route and capable of demonstrating the skills listed below.

Capable and demonstrable experience in designing all parts of data and telecommunication systems on large-scale projects.

Capable of specifying equipment, producing project documentation including drawings for large scale cabled LANs and wireless network systems.

Capable of running multi-building contracts and of demonstrating a working knowledge of all standards, directives regulations appertaining to the aforementioned tasks.

Capable of producing accurate cost estimates for small and large scale data and telecommunications projects.

Capable of testing and fault finding on large scale projects.

Capable of undertaking surveys of existing systems and making recommendations for improvements to system for current performance and for future requirements.

Must have extensive knowledge of European Directives, Standards (British, European and World)

Must be capable of demonstrating extensive experience in Health and Safety Legislative matters pertaining to the construction industry relating to I.T. Network installation and possess a current IOSH, JIB or other recognised H & S certificate.

DATACOMMS TECHNICIAN

Must possess Advanced Datacomms Specialist plus 3 years experience.

Must have supervisory experience.

Must have a knowledge of emerging technologies.

Must be capable of designing network modifications.

Must be capable of commissioning networks.

Must know most effective and economical way to do the job.