



# FIBRE & COPPER NETWORK INSTALLATION COURSE

## COURSE OVERVIEW

The Network Installer course provides delegates with an industry approved vocational qualification. We train individuals with the correct skills to install, fusion splice, terminate, maintain and fault find network cabling networks in multiple environments. This course is endorsed by City & Guilds and the Fibre Optics Industry Association (FIA).

The Network Installer course equips delegates with the correct qualifications and skills for installation and testing of fibre optics and structured network data cabling whether this be in a telecommunications environment like external fibre optic jointing, splicing and testing of fibre to the premises (FTTP) or long fibre optic trunk networks or passive optical networks (PON), or network data cabling in offices and buildings or fibre optics in data centres.

Network installers are in high demand globally with delegates who have achieved a vocational award. This qualification allows individuals to progress their careers to a level 3 qualification with City and Guilds awards. The course is broken down into the following modules:

- Communication Principles
- Fibre Optic Cabling
- Structured data network copper cabling

This course is taught by qualified industry instructors who have been in the industry for over 20 years and are approved by City & Guilds, Fibre Optics Association (FOA). Our instructors also work within the industry so their skills are kept up to date.

Our training centre has been designed and modified to ensure it matches real life scenarios and for you to learn in a real world environment, not at a desk, the centre has a 10km single mode fibre network with faults so you can learn to diagnose and rectify faults in a network. It also has a copper network that includes Cat5e, Cat6, Cat6a.

We make the training fun and enjoyable, so you learn in a friendly environment. Extra tuition is always available if required. On completion of the course, you will be able install, test and maintain network infrastructure cabling. This includes the following key skills:

- Fibre optic splicing
- Data network cabling installation
- OTDR Testing
- Data cabling testing
- Installation procedures for fibre and copper
- Identify fibre optic cables
- And much more.

## Module 201

- Health and safety
- Communications cabling standards / terminology
- Transmission principles theory
- Bandwidth and performance
- Safe working practices

## Module 202

- Theory of Light
- Fibre optic transmission
- The 'how' and 'why' fibre optic cabling is used in different environments telecoms and datacomms
- How optical fibres work and the issues that can affect performance
- Current standards
- Terminologies
- Identify fibre optic components and explain their uses
- Working safely with optical fibres in an internal and external environment
- Carrying out installations following recommended installation procedures and working practices
- Preparing fibre optic cabling for splicing and termination
- Terminating fibre optic cabling fusion splicing
- Fibre optic inspection
- Carrying out loss budget calculations
- Setting up and carrying out a OTDR test on fibre optic links
- Interpreting test results
- Fibre optic fault finding using a variety of test equipment that includes VFL, OTDR, Live Fibre identifiers, light source and power meters

## Module 203

- Health and safety for copper structured network cabling
- Terminologies used with structured network cabling
- Categories of structured network cabling ISO Class D, E, EA, F and Fa
- Installing in accordance with the current standards
- Terminating of patch panels, keystone jacks, RJ45 and line jack units (LJU)

- Terminating of structure communications cables
- Testing structured network cabling in accordance with the current standards
- Fault finding structured network cabling
- Interpreting test results

## WHO IS THIS COURSE FOR?

Anyone who attends the course with no prior knowledge or someone with experience will benefit from the course especially those wanting to further their careers and progress.

This is an ideal course for new entrants into the industry. The industry is booming with service providers installing fibre optic cables for their own deployments and there is a high demand for qualified individuals. However not all qualifications are vocational. They are accreditations which allow you on some networks. Having a vocational qualification stands individuals out from the crowd and shows that you have a good understanding of fibre optics.

## ASSESSMENT

All delegates will need to complete 30 questions per module. This is via an online examination. You will also complete a practical assignment to pass and homework is given out daily and must be completed prior to the final examination. This identifies strengths and weaknesses and allows delegates to improve in areas of weakness with guidance from the tutors delivering the course.