

FO01 – Fibre Optic Cabling & Termination for Data Applications

Introduction

Fibre optic links are becoming an increasingly common part of cabling infrastructures. Installers have to be competent when specifying, terminating, testing and installing fibre optics. The Connectix Fibre Optic Termination Course provides delegates with the hands-on practical experience and theoretical knowledge needed to successfully terminate fibres on site.

Coverage of typical LAN applications and their specific fibre requirements will provide delegates with the confidence to specify the correct type of fibre for intended application while also considering environmental factors.

Coverage of fibre optic testing will demonstrate how to prove successful in cable installation and termination.

Features & Benefits

- ✘ Gives delegates confidence to install and test fibre optic cables and connectors successfully.
- ✘ The relationship of fibre optic cabling to commonly specified cabling standards will be understood.
- ✘ Fibre optic technology overview with theory of operation relating to real world applications.
- ✘ Hands-on termination and demonstration of glue and polish, fusion splicing and crimping methods.
- ✘ Certificate awarded for successful completion based on an examination pass.
- ✘ 7 BICSI CEC Credits available for course completion.

Course Description

FO01 is a one day fibre optic cabling and termination course with the following key elements. A mixture of theory presentation, practical demonstration and hands on exercises are used to relate theory to real world scenarios.

- ✘ Introduction to Connectix
 - Background, history and activities
- ✘ Course introduction
 - Course materials, objectives, assessment
- ✘ Fibre optic cabling theory.
 - What is fibre optics?
 - How does it compare to copper and where is it used?
 - Fibre within the structured cabling standards.
 - Fibre for data communication applications
 - Theory of fibre optics.
 - Fibre types, construction and common terminology
 - Transmission of light – loss measurement
- ✘ Practical Detail
 - Fibre cable construction and selection
 - Fibre connectors
 - Link specification example
 - Specifying links; calculation of link loss
 - The ISO/IEC11801 OM1/2/3 grading system
 - Fibre cable installation considerations
 - Presentation of installed fibre links
 - Fibre termination – health and safety considerations
 - Review of termination methods with summary
 - Fibre preparation for termination
 - Practical termination exercises
 - Glue and polish
 - Fusion splicing
 - AMP Light Crimp+
- ✘ Fibre Link Testing
 - Why test? What to test?
 - Methods of testing
 - Different types of test equipment
 - Testing exercise
 - Loss testing with light source and meter
- ✘ Assessment

Course Itinerary

Courses are held at our Braintree training centre and follow the schedule presented below.

08:45	Refreshment and introductions
09:00	Course introduction and theory
10:30	Refreshment break
10:45	Theory presentation
12:15	Lunch (Sandwiches and refreshments)
12:45	Practical session : Glue & Polish
13:45	Demonstration : Fusion Splicing
14:15	Refreshment break
14:30	Practical Session : Amp LightCrimp+
15:15	Practical session : Testing
15:45	Conclusion of testing exercise
16:00	Revision for exam
16:15	Exam
16:45	Exam marking
17:00	Course close



*Times might differ on the day

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Course Description - Continued

The FO01 course aims to offer a balanced mix of theory and practice relating to the use of fibre optic cabling within the structured cabling system standards EIA/TIA-568B, ISO/IEC 11801 2nd edition and EN50174. Application standards are also introduced with regard to the importance of their consideration when specifying fibre cable and connector types for particular applications.

This course requires no prior knowledge or experience. It is intended that delegates from this background will leave with adequate knowledge, confidence and practical experience for specification and successful installation of fibre optic links.

Both delegates new to fibre optic cabling and those already experienced in practical installation will improve their formal knowledge of the theory behind the operation of fibre and the choices available in selection of fibre and termination methods.

The course is run by a fully qualified Connectix Cabling Systems structured cabling trainer who is constantly updated in line with the rapidly changing standards and fibre optic cabling technologies.

Upon completion of the course an examination is taken by each delegate, successful candidates are awarded a certificate acknowledging their competence.

Practical Exercise – Key Activities

The practical elements of this course are based on two termination methods: connector glue and polish, non-polish crimp on connector and, time permitting, fusion splicing of pre-terminated 'pig tails'. Time available allows for hands on experience of glue and polish with a demonstration of fusion splicing. The key objectives are for delegates to become competent in fibre optic termination, understanding the relative merits of each method covered. Please note that fibre optic polishing may require subsequent practice to achieve a high quality result under production conditions.

Overall the practical exercises and demonstrations cover:

Fibre cable preparation, fibre cleaving, connector glue loading, fibre connector threading, glue curing, hand polishing, connector visual inspection, connector crimp, optical loss testing.

Course Availability

Friday 25th November 2011

Friday 27th January 2012

24th February 2012

*Availability as of 01/11/2011. Please call for up to date availability.

Connectix Training – General Guidance & Information

Introduction

Training is usually held at the Connectix Training Centre based at the Connectix HQ in Braintree, Essex.

If required courses can be held externally at a customers site. Typically 6 or more delegates will be required to justify an external course.

Please note that while external courses aim to provide the same value as those held in our training centre the practical exercises may not be as comprehensive or offer the same level of learning benefit.

Training Centre Opening / Course Time Tables

The training centre will be open from 8:30am with a selection of tea, coffee and snacks available.

Courses aim to finish by 5:00pm with the training centre being closed by 5:30pm.

Course time tables may be flexible during the day however we have to start promptly, please ensure you can arrive at the start time specified in the course itinerary.

Most course schedules start with an informal refreshment and introduction session with the formal sessions starting thereafter, typically at 9:00am.

Travelling to Braintree

Braintree is well supported by rail, air and road travel.

By rail:

The local station is Braintree which is on a branch line from Witham. A number of services run directly between London's Liverpool Street station and Braintree however a change at Witham may be necessary on some services. Bear in mind the train station is 50 minutes walk away from the training centre so a taxi is necessary.

By road:

The A120 links Braintree directly to Stansted airport and the M11 motorway with a typical journey time of 20mins from the M11. The A120 can also be used to get to the A12 at Witham or Mark's Tey although this section can be subject to delays. The A131 may be used if travelling via Chelmsford. Ample parking is available.

By air:

Stansted airport is 15 minutes from Braintree using the A120. A rail service is available from Stansted into London's Liverpool Street station. A taxi would be the preferred method of transport from the airport as the train journey would be via London taking a minimum of 2 hours.



Local Accommodation

Hampton by Hilton
Panners Roundabout,
Braintree, Essex
CM77 7AB
Tel: 01376 332420

Approx 1/2 mile from Connectix
Catering available in hotel

Premier Inn Braintree
Fowlers Farm,
Cressing Road,
Braintree, Essex
CM77 8DH
Tel: 0871 527 8140

Approx 2 miles from Connectix
Catering at local Fowlers Farm

Connectix Training – General Guidance & Information

Mobile Phone Policy

Please keep phones on silent during the formal theory sessions. If you do need to answer a call please feel free to move out of the presentation room to take the call. Please note that the presentation / demonstration will continue without interruption.

Smoking Policy

Please note that in line with current UK legislation the training centre is a no smoking area. Smoking is only allowed in the designated smoking area, which is situated outside. Smoking breaks are available throughout the day.

Cancellation Policy

Course fees will be fully refunded on cancellation provided Connectix is informed more than 7 days prior to the course date. Please ensure you receive an acknowledged confirmation of cancellation after notifying your desire to cancel. Connectix reserves the right to re-schedule or cancel a course where necessary in the unlikely event that such action is required. In the case of Connectix cancelling a course a full refund of the course fees will be given. Upon failure to attend on the day of the course, payment will be charged in full.

Course Assessment & Certification

Assessed courses will conclude with a 30min exam consisting of around 30 questions of multiple choice and free answer format (typically free answers will be one or two word answers.) The pass mark is 80%. All assessments are 'open book' where course materials and notes made during the course may be freely used for reference.

All assessed course attendees will be issued a certificate on passing the assessment. Certificates will be issued after the course and forwarded on by post to the recipient identified on the exam paper.

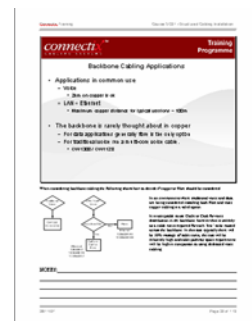
Course Materials



Each delegate will be issued a course manual consisting of the slides from the theory presentation. Space is available for delegates to add their own notes however in many cases supporting detail has already been added.

Specific product data sheets or specifications may also be used as supporting material. These will normally be supplied as loose leaf hand outs presented at the appropriate time.

All course materials are presented for the delegate to take away.



Course Refreshments & Lunch

Tea, coffee, cold drinks and snacks are available throughout the day. Delegates may help themselves outside of break times as required. Lunch consists of a choice of sandwich made on the day and delivered by a local delicatessen. Fillings are decided upon arrival on the day.