

# Fibre Optics Skills for Technicians



## Learn to terminate and test fibre optic cabling

A practical hands-on introduction to working safely with fibre optics. Learn how to fit connectors, splice fibres and carry out routine testing and troubleshooting of fibre optics links.

**INTRODUCTION**

**Duration: 2 days**

### Objectives

At the end of this programme you will:

- Recognise and be able to use the correct terminology when dealing with fibre optic cabling
- Recognise the different components involved in a basic fibre optic cabling system
- Understand the safety and handling issues when dealing with fibre optic cabling
- Be able to prepare fibre optic cabling for termination and testing
- Be able to terminate fibre optic cabling by fitting connectors
- Be able to join fibres together by splicing
- Be able to carry out routine testing of fibre optic cabling

### Why does this course exist?

Gaining the fundamental skills of working with fibre can help projects run more smoothly, reduce costs and provide the knowledge required to troubleshoot basic problems.

This course is run for groups from one company and can be customised to cover specific products, techniques and applications.

### Is this course for you?

An ideal course for production staff or technicians working on fibre optics projects. This course can be combined with a briefing programme to provide a better understanding of the technology.

### Key Benefits

- Know that you are using safe working practices
- Be able to choose the correct materials, tools and equipment to do the job
- Know about the different techniques and their benefits and drawbacks
- Benefit from OTT's 15 years of experience in training in fibre optics
- You'll receive a comprehensive manual packed with useful reference material
- On-going technical support and advice



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**providing answers in fibre optics and communications cabling**

### Course Content

 = Your hands on practical sessions

#### SAFETY

- *Quick reference*
- *Code of practice recommendations*
- *Laser safety*

#### CABLE HANDLING

- *Special precautions*

#### CABLES

- *Outdoor cable characteristics*
- *Indoor cable characteristics*
- *Cable types*

#### CONNECTORS

- *Connector basics*
- *Connector types*
- *Small Form Factors*
- *Others*

#### CABLE PREPARATION

- *Techniques & tooling*

#### TERMINATION METHODS

- *Types of termination*
- *For and against*

#### JOINING FIBRES

- *Causes of loss*
- *Performance requirements*



#### SPLICING FIBRES

- *Fibre cleaving*
- *Splice fibres using Tritec Fasekit & Fitel splicers*
- *Diagnosing problems*
- *Splicing parameters*

#### TEST METHODS

- *Continuity checking*
- *Insertion loss measurements*
- *OTDR appreciation*
- *Validity of results*
- *Documentation*



#### TESTING

- *Light source & power meter*
- *Fibre adaptors for copper testers*
- *Visible light source*

#### TYPES OF POTENTIAL FAULTS

- *Connection & connector problems*
- *Patchleads & pigtails*
- *Splices*
- *Fibre & cable bends*
- *Cable breaks*
- *Equipment problems*

#### ROUTINE MAINTENANCE

- *Cleanliness & cleaning connectors*
- *Using a visible light source for continuity checking*
- *Spares stock*
- *Importance of documentation*

#### REVIEW & DISCUSSION