

PLI-07-023

COMBO OTDR & FIBRE OPTIC JOINT

ENCLOSURE ASSEMBLY

OPTICAL



PERPETUAL LEARNING INSTITUTE provides a comprehensive syllabus that addresses critical practices pertaining to Optical technologies within the Telecommunications Optical access networks

PERPETUAL
LEARNING
INSTITUTE is
a Nationally
Approved Training
Provider of
Telstra™ & nbn™

Contact us today
for full details



Designed for all skill levels, this course provides each attendee an opportunity to secure the skills required to confidently install fibre optic joint enclosures used within a carrier network and splice fibre optic cores, and assess link quality to Telstra™ standards.

Each attendee will construct two carrier certified fibre optic joint enclosures. These are chosen to incorporate all the disciplines needed to confidently assemble most joint enclosures available and splice fibre optic cores without causing fault conditions.



BOOK ONLINE

Information is subject to change
For the most current information and training schedule, please visit : www.perpetuallearning.com.au/book



ACCREDITATIONS

Perpetual Learning Institute Pty.Ltd. is a nationally Registered Training Organisation (RTO code: 40809)

Perpetual Learning Institute Pty. Ltd. is also a Nationally Approved Training Provider (ATP) of nbn™ & Telstra™



APPROVED

COURSE OUTLINE

PLI-07-023-A

Introduction to Fibre Optics



- Understanding telecommunications network architecture
- Basics of fibre optics – units of measurement
- Singlemode and multimode cable principles and naming and colour codes
- Light propagation principles
- Laser transmission system theory
- Optical connectors and pigtails
- Laser safety and OH&S
- Fibre optic cleaning principles
- Operating optical microscopes / VIPs
- Operating traffic identifiers
- Operating visual fault locators
- Practical exercises to reinforce theory elements

PLI-07-023-B

Fibre Optic Splicing Principles

- Splicing methods and technologies
- Splicing tooling requirements
- Matching splice protectors to splicing trays
- Fibre optic cleaning process for splicing
- Fibre optic cleaving process for splicing
- Fusion splicing techniques and acceptable limit of operation
- Practical exercises to reinforce above elements

PLI-07-023-C

Fibre Optic Cable Construction

- Cable types used with a carrier environment
- Cable markings and definition
- Complete fibre optic cable numbering system
- Techniques for stripping cable protective coatings
- Practical exercises to reinforce above elements

PLI-07-023-D

Fibre Optic Joint Enclosure Assembly Principles (Select 2 of the following enclosures)

- Assembly methodologies for Egerton 24/72 joint enclosure
- Assembly methodologies for Corning UCNCP 9-24 MAX joint enclosure
- Assembly methodologies for Corning UCNCP 7-20/ 9-20 joint enclosures
- Assembly methodologies for Corning 24F OJ joint enclosure
- Assembly methodologies for Fibernet Tap 2 (internal) joint enclosure
- Assembly methodologies for Warren & Brown 2 Draw OFDF (internal) joint enclosure
- Practical exercises to reinforce above elements

PLI-07-023-E

Acquiring a Suitable and Accurate OTDR Trace

- Index of refraction
- Pulse width selection
- Deadzone effects on an OTDR trace
- Selecting the most suitable range and resolution setting
- OTDR trace acquisition time
- Wavelength test selection
- Practical exercises to reinforce above elements

PLI-07-023-F

Evaluating OTDR Trace Elements

- OTDR trace basics
- OTDR trace elements
- Measuring OTDR trace features using an OTDR
- OTDR fault conditions – trace examples provided
- Effects of incorrect OTDR parameter setup
- Ghosting and gainers
- Techniques for accurate fault locating
- Practical exercises to reinforce above elements

PLI-07-023-G

Evaluating Overall Link Quality

- Understanding network testing thresholds
- Calculating loss / attenuation budgets
- File naming conventions and trace file formats / structure
- Measuring optical insertion loss
- Evaluate an optical connector using an optical microscope and / or VIP
- Determine the effectiveness of other fibre optic testing tools including - VFL, BFA, Traffic Identifier etc
- Creating a professional and accurate optic link performance report using the Telstra™ workbook and how this relates to multiman
- Introduction to "Networks" PC emulation software
- Practical exercises to reinforce above elements

PLI-07-023-H

Course Assessment

- Theoretical assessment
- Practical assessment

COMBO OTDR & FIBRE OPTIC JOINT ENCLOSURE ASSEMBLY

INDUSTRY PROBLEM

- With the deployment of the nbn™, Australia now needs additional skilled workers to construct the different network architectures.
- New network architectures and technologies require the development of new skills and knowledge to ensure success.



PERPETUAL LEARNING SOLUTION

- Working as an nbn™ Approved Training Provider, PERPETUAL LEARNING INSTITUTE has enhanced our traditional courses to align directly to the skills needed for the nbn™ rollout.
- The development of carefully constructed skill based programs is where we excel – the art of training.
- Unlike other training organisations which focus primarily on technology, PERPETUAL LEARNING INSTITUTE is structured toward Field Operations staff. Technology theory is combined with large quantities of practical exercises to reinforce the learning process.
- PERPETUAL LEARNING INSTITUTE is the market leader with regards to hands on practical training that is supported by our real world learning simulators – “We bring the field environment to you”.



COURSE INFORMATION

Course Locations:

Melbourne, Adelaide,
Sydney, Hobart,
Canberra,
Cairns,
Brisbane,
Darwin and Perth



Location and timing will be advised at enrolment

Class Size: 10 - 12 students

Duration: 5 days

Included:

All materials used for practical exercises, technical manuals for each attendee, test equipment, emulation environment.
1 week phone support.