Every participant will receive extensive training on the Clearview Cassettes and FieldShield Optical Fiber Protection products, with either their choice of Inside Plant, Outside Plant or Both depending upon their needs.

Clearview Cassettes

Overview

In this section, we will spend a significant amount of time to teach and have thorough hands-on demonstration outlining the proper procedures to assemble, land and splice both loose tube and ribbon fiber in each of our Clearview Cassettes. Participants will also learn the proper installation and splicing techniques for using the CraftSmart 900um Splice-on-Connector (SOC) to repair a termination in the case that a Clearview Cassette pigtail is damaged during installation or maintenance. In addition, we will deliver numerous tech tips that we have learned along the years, such as how and when to perform a Redirect "S" in the Clearview Cassette.

Course Length

3 hours

Objectives

- Assemble and configure the six components of a Clearview Blue Cassette
    - Top cover
    - Expansion ring
    - Splice tray
    - Radius limiter
    - Cable assembly tray
    - 12-pack adapter plate
- Learn and be able to describe the six basic configurations
- Splice loose tube and ribbon fiber into a Clearview Cassette and xPAK following Clearfield's best practice procedures. (We do not teach splicing, just the preparation into our cassettes.)
- Be able to reroute fiber to switch cable exit "Redirect S"
- Understand our passive optical components and packing
- Understand the MPO connector
- The importance of cleaning your connectors

Hands-On Training

- Clearview Blue Cassette construction
- Clearview xPAK assembly

Video Demonstrations

- Splicing in the Clearview Cassettes
    - Clearview Classic – Mass Ribbon
    - Clearview Blue – Loose Tube
    - Clearview xPAK
- CraftSmart Splice-On-Connector

FIELDSHIELD OPTICAL FIBER PROTECTION SYSTEM

Overview

This training module is designed to teach and explain the different types of microducts offered by Clearfield, as well as their applications, placing methods and installation best practices. Participants will learn about the various "pushable fiber" configurations and the benefits of using a pushable SC or Dual LC Connector to eliminate splicing in certain applications. During instruction, applicants will also be trained on the proper use and benefits of using different accessories and tools associated with these products.

This training module concludes with hands-on instruction, demonstration how to install fiber through a direct bury microduct using push, pull and push-pull combination techniques.

Course Length

1 hour

Objectives

- Explain the benefits of using FieldShield to improve long term network reliability
- Understand the three components of the Optical Fiber Protection System
    - Microduct
    - Pushable Fiber
    - Associated Accessories
- Know the best practices for each microduct placement method
- Be able to field terminate the SC and Dual LC Pushable Connectors
- Maintain tone wire signal integrity when joining two direct buried toneable microducts
- Explain benefits, configurations and installation of the SmarTerminal with hardened connector

Hands-On

- Direct Buried Toneable Microduct Field Repair
- Aerial Microduct dead-end attachment
- Direct Buried Microduct Pushable Fiber installation
- SC Pushable Connector outer housing assembly
- Dual LC Pushable Connector outer housing assembly
- Hardened Connector assembly for pushable fiber assembly

Video Demonstration

- SmarTerminal and Hardened Connector

INSIDE PLANT AND IN-BUILDING ACCESS

Overview

The participant will learn in this module how to assemble a complete frame kit, including a standard frame, our FxDS and FxHD frame kits from opening the box to aligning the doors on the frame. We will teach you about our entire product line of panels, protection options and integrated optical component solutions. The flexibility in design and configuration of the Clearview Cassette is implemented into all of our FieldSmart products. We will prepare participants on how to install cables, route jumpers and install splitter modules into these easy to configure, craft-friendly panels.

This section will also include in-building access training covering Enterprise, Business Class and MDU solutions delivering fiber through indoor wall mount panels. This training will focus on mounting these panels, routing and proper slack storage methods to safely land and store slack fiber, and various splitter and optical component split methods.

Course Length

1.5 hours

Objectives

- Be able to understand the FieldSmart Frames following our best practice procedures
  - Standard Frame
  - FxDS frame kit
  - FxHD frame system
- Understand the panel components and protection options
- Configure and install the different panel types and sizes
  - Patch Panels
  - Optical Component Panels
  - Tie Panels
- Demonstrate Clearfield's design philosophy of slack storage, bend radius protection, physical protection and route diversity
- Utilize the 144 Ribbon Breakout Kit and High-fiber Ribbon Breakout Box

Hands-On

- FxDS Patch Only Panel Installation
  - Mounting to frame
  - Securing fiber to cable clamps
  - Pigtail routing
- FxDS Patch and Splice Panel Installation
  - Cable prep and routing
  - Mounting to frame
  - Slack storage
- Fiber Delivery Point (FDP) Indoor Wall Boxes
- Fiber Entrance Cabinet (FEC)
- Modular Optical Components (MOC)
- High-fiber Ribbon Breakout Kit and Box

OUTSIDE PLANT TRAINING – CABINETS AND PEDESTALS

Overview

Participants will learn about the FieldSmart Fiber Scalability Center (FSC) Cabinets and their different configurations. Training will focus on the various sizes, capacities, mounting options, installation practices, as well as how to prepare and install the OSP cables. We will also teach participants about how to install the accessories, splitter modules and proper jumper routing techniques. Finally, we will cover the 96 PON Pedestals, the different manufactures of compatible pedestals, how to prepare and install the OSP cables, splitter modules and proper jumper routing techniques.

Course Length

1.5 hours

Objectives

- Know the different sizes and configurations of all our FSC Cabinets
    o 288-Port PON, 432-Port PON and cross-connect cabinets can be pole mounted
    o All others are mounted on a vault
- How to perform pole/vault mounting
- How to bring in, prepare and install OSP cables
- Install splitter modules and route jumpers efficiently
- How to prepare and install the OSP cables, splitter modules and proper jumper routing techniques

Hands-On

- 288-Port PON cabinet with a 4"riser
    o PON cabinet splitter and parking lot installation
    o Mid-span feed-through plate installation and cable routing
    o Clearview Cassette installation

Video Demonstration

- FieldSmart (FSC) Hub Collapse Cabinet Overview
- FieldSmart (FSC) Mounting to a Vault
- FieldSmart (FSC) Pole Mounting

OUTSIDE PLANT ACCESS

Overview

A continuance of our outside plant training. Continues with the Small Count Delivery line of products, test access point and various outdoor wall mount demark panels associated with the OSP last mile access. Participants will learn about the components and installation of the Test Access Point (TAP) Box and Outdoor Wall Boxes.

Course Length

1 hour

Objectives

- Different products associated with OSP Access
- Different sizes and types of Outdoor Wall Box
  - Mounting the box
  - Preparing and prep for splicing the OSP cable
  - Jumper routing
- Small Count Delivery Panels and Wall Boxes
  - Accessories
  - Different mounting options
- Pedestals
  - Applications
  - Proper installation techniques
- Fiber Protection Vaults (FPV) and Boxes (FPB)
- Test Access Point (TAP)

Hands-On

- FDP and SCD Outdoor Wall Boxes
- TAP (Test Access Point)
  - Installation with microduct

Video Demonstration

- Splice Only Pedestal Cable Prep and Installation
- FieldSmart (FSC) Mounting to a Vault