



IN TECH - Telecom Quality Installation Techniques

Length: 4.5 Days

Overview

IN TECH is a course that will provide instructor guided instruction on various telecommunications installation techniques. To help reinforce the comprehensive installation guidelines discussed, casework / lab activities are included. You will learn the most current industry standards for telecommunications equipment installations. The terminology and methods discussed in this course are consistent with wireline and wireless industry accepted guidelines i.e.; AT&T, Verizon, Telcordia and National Electrical Code (NEC).

IN TECH provides instruction in the fundamental skills and knowledge required to perform equipment installations and removals for telecommunication companies. This course will assist you in developing good work habits needed to become proficient in installation and removal activities, thereby ensuring a safe and quality job. Upon completion you will leave with the ability to recognize installation items that do not comply with today's industry standards.

This course emphasizes building proficiency into the installation activity from the beginning, rather than relying on post installation audits to identify defects. Upon completion you will leave with the ability to recognize installation items that do not comply with today's industry standards.

Who should attend: IN TECH was created to meet industry needs for fundamental training in basic installation standards and is designed for those installers, supervisors and engineers with little or no understanding in the fundamentals of telecommunications equipment installation.

Throughout the course, knowledge assessments are used to reinforce the topics discussed. At the completion of the course you will be tested to document your knowledge. Successful completion of this test will earn TPI Trainers Certification. The test results will also provide you with an appreciation of your attained knowledge through classroom participation. The results will also help to determine areas for further study.

Note: When IN TECH is delivered at your location (client-site), our instructors can enhance your learning experience by performing an installation audit at your site, thereby specifically targeting the lessons learned in the classroom.

Customization: IN TECH depicts the current industry standards and can be customized to meet the needs of your specific work group. To discuss the need to customize this course you can contact Vicki Johnson by calling 1-630-607-9302.

Course Outline

- Installation Skill Level
 - competency
 - critical activity
 - network elements
 - installer skill levels
- Generic Installation Activities
 - What is meant by quality?
 - general quality requirements
- Job Outline
 - steps required for a generic installation job
- Service Interruptions and Method of Procedures (MOP)
 - MOP requirements
 - who?
 - what?
 - when?
 - where?
 - why?
 - how?
 - preparing a MOP
 - MOP approvals
- Job Specifications & Drawings
 - reading specifications
 - interpreting specifications
 - reading drawings
- Fire-Stopping
 - penetrations
 - cable holes
 - floor
 - wall
 - cable slots
 - labeling & designations
 - fire stopping specifications
 - methods of installation –
 - intumescent
 - sheets
 - blocks
 - caulk
 - putty
 - protection of fiber optic pathways

- Ironwork
 - list of tools
 - ironwork installation
 - placing
 - cutting
 - supporting
 - securing
 - finishing
 - AC circuits
 - running
 - supporting
 - NEC requirements
 - Proper Grounding
 - IBN (Isolated Bonding Network)
 - CBN (Common Bonding Network)
 - Stenciling
 - procedures
 - requirements

- Cabling, Wiring & Connections Requirements
 - placement
 - protection
 - securing
 - routing
 - segregation
 - termination

- Bonding & Grounding
 - ground system
 - conductors
 - routing technique
 - connections
 - CBN (Common Bonding Network)
 - IBN (Isolated Bonding Network)
 - SPCB physical requirements
 - AC system grounding
 - electrostatic discharge

- Hazardous Material
 - workmanship
 - compliance to requirements
 - hazardous material
 - regulated material
 - hazardous waste
 - laws and acts
 - warnings
 - forms

- Corrective Actions
 - immediate corrections
 - maintenance memorandum
 - quality defect list
 - engineering complaints

Hands-On Exercises and Activities

Extensive hands-on exercises reinforce what you have learned during the lecture portion of the course. You have the opportunity to:

- Observe the proper techniques in making irreversible crimp-type connections.
- Terminate cable.
- Observe proper torquing techniques.
- Practice stitching/sewing cable.
- Solder connections.
- Review and interpret job specifications.
- Review and interpret job drawings.

Where applicable, hands-on lab exercises may include:

- Visiting a telecommunication site and conducting an installation survey using checklists based on the latest industry installation guidelines or your company's installation guidelines.
- Documenting any examples of quality installation defects found.
- Recommend corrective actions for the defects found based on:
 - cost
 - risk
 - safety
 - service

Take Home Materials:

A complete course manual will be provided. You will also receive a Quality Assurance checklist based on the most current industry installation requirements. This manual will be a valuable reference as you return to your job.

Who Can Benefit

IN TECH was created to meet industry needs for fundamental training in basic installation standards and is designed for those installers, supervisors and engineers with little or no understanding in the fundamentals of telecommunications equipment installation. Telephone equipment installation suppliers are required to maintain a skill level assessment of their installation forces based on industry guidelines. Therefore, installation suppliers with workforces responsible for installing and supervising equipment installation work performed in a telecommunications facility will also benefit.