

ETA International Competency Requirements

ASTRO® 25 7.x Master Site Technician – 2007

The following is a listing of each topic considered necessary to be included in a course of study towards the education of technicians performing installation, maintenance and repair of an ASTRO® 25 7.x system. There are 6 categories of training. This COMPETENCY listing is the syllabus, or identification of each individual subject, in which the technician must be knowledgeable and skilled.

Technician seeking the ETA ASTRO® 25 7.x Master Site Technician specialty are required to also have a basic education in fundamental electronics. That basic knowledge is assessed in the Associate CET examination. The Associate CET exam, plus the ASTRO® 25 7.x Master Site and the WCM or USMSS wireless communications specialty examination go together to form the complete Journeyman CET exam.

ASTRO® 25 7.x MST Competencies

ASTRO® 25 System Overview

- Purpose of the ASTRO 25 IV&D System.
- ASTRO 25 system features and capabilities.
- ASTRO 25 system subsystems and their respective functions.
- ASTRO 25 system and software tools.
- ASTRO 25 system compatible end-user devices.

ASTRO® 25 IV&D system management applications:

- User Configuration Manager (UCM)
- System Profile
- Zone Watch
- Default Profile
- Zone Profile
- ATIA Log Viewer
- Zone Configuration Manager
- Affiliation Display
- Customer Service Software (CSS)
- RCM Basics
- Introduction to Router Manager
- Reports
- Introduction to FullVision

Upgrading to a ASTRO® 25 System

- Foundational Principle
- Radio Frequency Subsystem
- Control Subsystem
- Audio Distribution Subsystem
- Transport Subsystem

- Management Subsystem
- Modulation Overview
 - Representation of Audio and DATA information
 - SECURENET Overview
 - Pulse Code Modulation Overview
 - ASTRO® Overview
 - Frequency Modulation
- Conventional Communications
 - Radio to radio
 - Repeater
 - Base Station/Console
 - Conventional System to
 - Trunking System Transition
- SMARTNET II Trunking Concepts
 - Call Processing
 - Features
 - Transition Principles
- Multiple Site Communication Principles
 - Terminology Issues
 - Conventional Multiple Site Systems
 - Voting Systems
 - Simulcast Systems
 - Trunking
 - Voting Systems
 - Simulcast Systems
- SmartZone System Principles
 - Concepts
 - Features
 - Control Path
 - Circuit-Switched-Based Audio Path
 - Network-Based Management System
- ASTRO® 25 System Principles
 - Concepts
 - Features
 - Packet Switch Based Control Path
 - Packet Switch Based Audio Path
 - Network-Based Management System
- Networking Fundamentals
 - Computer Insights Applied to Networking
 - Network Concepts and Hardware
 - Network Addressing
 - Basic Troubleshooting

Communications Networking

- TCP/IP Basics
- Types of Protocols
- Addressing
- Microsoft Windows Client and Server
- Constructing a network
- Connecting Routers
- Troubleshooting

Motorola Communications Networking

- Introduction to Motorola Systems
- Review of Basic Networking Concepts
- Networking in Motorola Systems
 - ASTRO SmartZone System 4.1
 - ASTRO 25 System 6.x / 7.x
- Advanced Networking Concepts
- Network Security Concepts
- T1 and Frame Relay
- Hands on access to the components used in Motorola Communications
- System networks
- Troubleshooting

ASTRO® 25 7.x System

- System Views
- Master Site and Call Processing Subsystem
- Network Transport
- Network Management
- Data Subsystem
- Dispatch Subsystem
- System Reliability
- Routine Maintenance
- Troubleshooting Tools
- System Troubleshooting