

Servicing the GE Precision 500D R&F Room



RADIOLOGICAL SERVICE TRAINING INSTITUTE

Introduction

The GE Precision 500D R/F course is a skills development course designed to provide the experienced service professional with the knowledge and skills necessary to service, calibrate and troubleshoot this R&F system

Prerequisites

To attend this course, the service professional must have a good understanding of the principles gained through attending Phase II and Phase III or two years equivalent experience in servicing R/F equipment. The service professional must also possess a good working knowledge of computers. In addition, some working knowledge of Unix is helpful.

Objectives

At the conclusion of this course participants will be able to:

- Perform complete calibration of the GE Precision 500D control, image chain, and peripheral equipment
- Evaluate system performance
- Troubleshoot the majority of the system to component level
- Perform CDRH testing on the GE Precision system to ensure compliance

Course Outline

DAY 1

- Introduction
- Course overview

- 500D product overview
- Major components
 - System cabinet
 - JEDI
 - Imaging system
 - Positioning system
 - System communications
 - System Interconnections
 - OTS
- Acronyms
- Documentation
 - System tasks & procedures
 - System manual
 - Specifications
 - Schematics
- Tools & test equipment
- Specifications
 - Precision 500D Classical R&F
 - Tube Specs

Lab Activities

- Operational & Functional Checks
- Covers & Panels

DAY 2

Lab Activities

Theory of Operation

- JEDI
- Imaging System
- Positioning System
- System Communications
 - Block diagram – Bus routing
 - Can Bus
 - (RT) Real Time Bus
 - Ethernet

Lab Activities

- Bus
- Identification & Testing
- Networking
 - 500D Network overview

- Bus topology
- DICOM
 - Basics
 - Troubleshooting

Lab Activities

- FTP
- Telnet
- DICOM emulator
 - Set up
 - Server
 - MWL
 - Print

DAY 3&4

- System Service
- System Tasks & Procedures
- System configurations
- System calibrations
 - Calibration interaction chart

Lab Activities

- X-ray tube removal & replacement
- System calibrations
- Regulatory testing
- IQST
- Software reload
- System Tasks & Procedures
 - Magic
 - Saturn

DAY 5

- Schematics
 - Diagnostics
 - Troubleshooting
 - Error codes
 - JEDI system manual
 - Switches, Jumpers & LEDs
- Review PM
- II. Final exam