

Servicing the Philips mobileDiagnost wDR Portables



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Introduction

The Philips mobileDiagnost wDR training course covers Philips latest portable DR (Digital Radiography) system.

The mobileDiagnost wDR course is a skills development course designed to provide the experienced service professional with the skills necessary to fully service and calibrate these portable detector systems. The mobileDiagnost product is built on the Sedecal generator platform. The mobileDiagnost wDR v1 & v2 will be covered.

Prerequisites

To attend this course, the service professional must have a good understanding of the principles gained through attending Phase II or two years equivalent experience in servicing RAD equipment.

Objectives

- Understand the similarities & difference between the mobileDiagnost products.
- Describe how factors are optimized to produce the highest quality digital images
- Describe the function of the basic components of each mobileDiagnost portable unit
- Perform the necessary digital performance monitoring and quality assurance procedures

- Perform all system calibrations and adjustments to maintain the highest quality images
- Evaluate circuit functions to facilitate troubleshooting
- Perform a complete and thorough preventive maintenance inspection on the unit

Course Outline

Day 1

- Digital imaging process overview
- Basic terminology
- mobileDiagnost system overview
 - o Release Versions
 - o FPD's
 - Fixed Detector (Trixiell Pixium 4600)
 - SkyPlate
- mobileDiagnost system operation
- System specifications
- Lab Activities
 - o Basic system operation
 - o System software
 - o Image acquisition
 - o Image viewer
 - o Screen considerations
 - o Technologist digital QC
- System documentation overview
- Operations
- Service
 - o Service access
- Lab Activities
 - o Image quality
 - o Signal to noise
 - o Resolution
 - o Contrast ratio
 - o MTF

- o Flatfield/phantom IQ
- o AEC

Day 2

- System service
 - o Service software
 - o Sedecal generator service software
 - GSM (Generator Service Mode)
- Lab Activities:
 - o Required tools and software Remove and replace covers and system panels
 - o Covers & Panels
 - Battery change
 - o Power Supplies & Check
 - o Lab Activities
 - Covers and Panels
 - Component Identification
 - Tube Change
 - Power Supply checks
 - Battery Change
 - o Generator
- AWS configuration
- Network configuration
- Ethernet config
 - o Troubleshooting internal networks
- System calibration
 - o Tube Adaption
 - o Tube Conditioning
- Functional checks
- System backups
- System restore
- Lab Activities
 - o Component location
 - o Schematic location
 - o Physical location

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- o Connector locations
- o Fuse location/identification

Day 3

- Preventive maintenance
- Error codes
- Lab Activities
 - o PM
 - OEM Preventative Maintenance Procedures
- Image Chain - Image Detection
- Detector Calibration
 - Detector correction
 - Flatfield correction
- System service procedures
 - o Software reload
 - o Troubleshooting
 - o Options
 - o Networking
 - o Output devices
 - Laser printer
 - PACS
 - RWS
 - Media
 - o Input devices
 - Modality worklist
- Lab Activities
 - o Software Load
 - o Configure and test output devices
 - o Configure and test input devices
 - o Backup/Restore
 - o Ghosting/Cloning procedures

Day 4

- Battery charger
 - o Functional checks
 - o Troubleshooting
- Generator calibration

- Lab Activities
 - o AEC calibration
 - o Beam alignment
 - o Collimator format
 - o Detector gain
 - o Battery charger circuit

Day 5

- System diagrams
 - o Generator
- Troubleshooting
- System diagnostics
- Lab Activities
 - o Review system diagrams and communication
 - o Troubleshooting
 - o System diagnostics
 - o Access Error logs
 - o Central Listing
 - Test Points
 - LED's
 - o Networking
 - o Power Distribution/Supplies
- Course review
- Course evaluation
- Final exam