

Servicing the Philips Bucky Diagnost (Optimus Generator)



RADIOLOGICAL SERVICE TRAINING INSTITUTE

Introduction

The Philips Bucky Diagnost (Optimus Generator) course is a skills development course designed to provide the experienced service professional with the skills necessary to fully service and calibrate this radiography room.

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. The service professional must also possess a good working knowledge of microprocessors and their associated support chips.

Objectives

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

- Evaluate overall system performance
- Troubleshoot mechanical and electronic problems on all components of the unit
- Perform a complete and thorough preventive maintenance inspection on each unit
- Follow circuit operations of system detail block diagrams

Course Outline

Day 1

- System Overview

- o Optimus Generator
 - Modular design
- o Two Consoles
 - OPS/Remote
- Philips documentation
 - o Operator's manual
 - System features
 - System components
 - o Pre-installation manual
 - o Service manual
 - o OTS suspension
 - Operator's manual
 - Pre-installation
 - SVC
 - o Schematics
- System specifications
 - o Table
 - o Generator
 - o Power
 - o Collimator
 - o Wall stand
 - o X-Ray tube

Day 2

- Installation
 - o Quick start
 - o System description
 - o System console
 - o Table components
 - o OTS
 - o Wall stand
 - o Accessories
- Lab Activities
 - o Operational checks
 - o Functional checks
 - o Component ID
 - Generator
 - Table
 - OTS

Day 3

- Generator theory
 - o Block diagrams
 - o Power distribution
 - o Board function
 - kV Control
 - kV Function
 - mA Function
- Lab Activities
 - o System software
 - o Service Software
 - Connecting & using Agent & XScope service software
 - o System backups
 - o Positioning & limits
 - o Calibration
 - o AEC
 - Calibration for film
 - Calibration for CR
 - o Power Supplies

Day 4

- Error codes
- Schematics
- Configuration
- Lab Activities
 - o PM checks
 - o Troubleshooting

Day 5

- System review
- Final exam
- Course evaluation