

Philips R&F Imaging Scopo 76 Filmer, XTV 11 TV Camera, Diagnost 76 Table Course

Course length: 1 Week
CEU's Awarded: 4

<p>COURSE INTRODUCTION The Philips R&F Imaging course is designed to teach the service professional those skills necessary to fully service the imaging chain. This includes all calibration procedures, functional checks, and troubleshooting techniques. The course includes integrated lectures, labs, and documentation which complement each other ensuring the maximum learning environment.</p>	<p>COURSE OBJECTIVES At the conclusion of this course, attendees will be able to:</p> <ul style="list-style-type: none"> ● Troubleshoot to the component or board level. ● Calibrate all circuitry to the manufacturer's specification. ● Perform all related CDRH compliance testing. ● Perform image evaluation. ● Verify the system performance. 	<p>PREREQUISITES FOR ADMISSION Attendees must possess the knowledge acquired through attendance at our Advanced Concepts of Fluoroscopic Imaging Maintenance-Level III or the equivalent electronics and service experience. A strong microprocessor background is recommended.</p>
<p>DAY 1</p> <ol style="list-style-type: none"> I. Introduction II. System basic operation <ol style="list-style-type: none"> A. Front panel controls B. System specifications III. Spotfilmer mechanical operation IV. Basic electrical block diagram operation V. Detailed electrical operation <ol style="list-style-type: none"> A. Longitudinal carriage drive B. Lateral carriage drive <p>LAB ACTIVITIES</p> <ol style="list-style-type: none"> I. System operation II. Component location III. Carriage drive calibration <p>DAY 2</p> <ol style="list-style-type: none"> I. Spotfilmer detailed electrical operation <ol style="list-style-type: none"> A. Mask drive B. Grid and cone drive C. UT shutter drive II. TV camera block diagram operation <ol style="list-style-type: none"> A. Circuit layout and operation B. Camera specifications <p>LAB ACTIVITIES</p> <ol style="list-style-type: none"> I. UT shutter calibration <ol style="list-style-type: none"> A. Spotfilm B. Fluoro shutter limits 	<ol style="list-style-type: none"> II. TV camera <ol style="list-style-type: none"> A. Component location B. TV camera tube replacement <ol style="list-style-type: none"> 1. VA target voltage 2. Grid voltages 3. Alignment C. Focus adjustment <ol style="list-style-type: none"> 1. Optical 2. Electromagnetic 3. Dynamic focus <p>DAY 3</p> <ol style="list-style-type: none"> I. TV camera detailed electrical operation <ol style="list-style-type: none"> A. Timing generation <ol style="list-style-type: none"> 1. Standard mode 2. High resolution mode B. Sweeps <ol style="list-style-type: none"> 1. Horizontal 2. Vertical C. Camera tube element supplies <ol style="list-style-type: none"> 1. Beam boost D. Video preamp <ol style="list-style-type: none"> 1. Aperture setting 2. Signal generator E. Video processor <ol style="list-style-type: none"> 1. Composite video 2. Sync, Blanking, Setup 3. Dynamic highlight comp. 4. AGC 5. Circular blanking 	<p>LAB ACTIVITIES</p> <ol style="list-style-type: none"> I. Sweep calibration II. Preamp level adjustment III. Video level adjustment IV. Circular blanking calibration V. Waveform analysis <p>DAY 4</p> <ol style="list-style-type: none"> I. Automatic Brightness Stabilization block diagram operation II. Automatic Brightness Stabilization detailed operation <ol style="list-style-type: none"> A. Video brightness stabilizer B. Video sample window C. Fluoro KV control D. Fluoro mA control <p>LAB ACTIVITIES</p> <ol style="list-style-type: none"> I. Patient entrance exposure rate adjustment II. ABS adjustments III. System evaluation <p>DAY 5</p> <ol style="list-style-type: none"> I. Table block diagram operation II. Table detailed operation <ol style="list-style-type: none"> A. Tilt drive B. Power assist drive C. Table top drive III. System review IV. Final exam and course critique V. Parts sourcing