

REQUESTING SERVICE: RADIOLOGY SERVICE  
SHIP TO: WHSE/RECEIVING  
V.A. Medical Center  
3350 LA JOLLA VILLAGE DR  
SAN DIEGO, CA 92161  
REQUISITION: 664-B90012

Line #	Part #	Description	Qty	Each	Price
1		<b>CombiDiagnost Full System</b>	1		
		<b>CombiDiagnost R90</b>			

CombiDiagnost R90 is a remote controlled premium fluoroscopy system in combination with high-end digital radiography, designed to provide high patient throughput and efficiency through a smooth digital workflow, as well as to improve room utilization in a cost effective manner.

Thanks to its digital flat detector technology able to acquire high frame rate fluoroscopy as well as high-resolution radiography, CombiDiagnost R90 allows performing in one single room a wide range of applications that would typically require multiple conventional systems, saving space and time.

Main benefits at a glance:

- X-ray from head to toe thanks to 193 cm (76 inch) patient coverage
- Extremely robust geometry to exam broad patient types, with maximum patient load of 284 kg (626 lbs) without limitation of movements
- Easy access to the table and comfortable work position, with height adjustment from 65 cm to 133 cm (25.6 to 52.5 inch), +/- 1.5 cm (0.6 inch)
- High flexibility through tiltable table from -90° to +90°
- Ample detector area for full diagnostic information even with large patients
- Dose reduction due to high detector quantum efficiency
- Broad range of applications possible including chest exams, thanks to source image distance adjustable from 113 cm to 183 cm (44 to 72 inch)
- Effortless table, detector and column positioning with motorized movements
- Large adjustable footrest which can be positioned at both ends of the table
- No grid manipulation necessary thanks to automatic grid selection based on exam type
- Two adjustable handgrips on tabletop, for patient safety and comfort during movements
- Optimized exposure settings through automatic adjustment according to patient thickness
- Decrease in the number of repeat exposures due to the reduction of overexposed and underexposed images
- Superb image quality due to state-of-the-art detector technology and exclusive Dynamic UNIQUE image processing
- Total radiation dose monitoring by an integrated area dose calculator
- Customizable Eleva user interface with two high quality monitors for the control room
- State-of-the-art IT security and patient privacy architecture
- Professional serviceability and remote service capabilities

The long tabletop and wide tube column and detector travel provide great patient coverage, allowing quick and effortless positioning. Thus the patient can be completely examined and not moved during the examination. The high weight capacity enables examination of bariatric patients. The motorized height adjustment gives a total tabletop lift of 68 cm (26.9 inch) to adjust to

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a comfortable and safe working height. The lowest position allows loading a patient who is in a wheelchair.

The wide size 43 x 43 cm (17 x 17 inch) integrated digital flat detector covers all relevant anatomy and offers full diagnostic information. Its Cesium Iodide (CsI) technology provides excellent quantum efficiency (DQE) and helps to reduce the required patient dose. Its ability to acquire both high frame-rate fluoroscopy sequences and high-resolution radiography images provides high flexibility in any circumstances.

An integrated seven-field automatic exposure control chamber ensures optimum image quality at the lowest possible dose even for difficult projections, as well as the automatic adjustment of exposure kV and time parameters to be optimized to patient thickness.

The geometry control console provides a simple and ergonomic way to trigger motorized geometry movements from the control room. Five joysticks offer intuitive and safe control of all movements, plus a touchscreen user interface allows manual overwrite of acquisition parameters.

The innovative Eleva workspot of CombiDiagnost R90 lets you experience simplicity like never before. Designed with input from customers, it provides two high quality monitors for the control room with a clear and intuitive user interface. The main monitor being touchscreen, it is easy to learn and use and is highly configurable to adapt to particular needs and specific workflows, resulting in high room efficiency.

The high workflow automation possible through the Advanced Eleva concept allows concentrating on patients instead of on the system. The touchscreen user interface, the integrated generator controls, and the automatic setting of exposure parameters based on patient and examination information coming from the RIS, provide quick and easy access to all functions a busy technologist needs to achieve an efficient workflow.

Thanks to Philips outstanding Dynamic UNIQUE (UNified Image QUality Enhancement) advanced multi-resolution image processing, all radiography images and fluoroscopy sequences are always displayed fully processed in real-time. During fluoroscopy runs, Dynamic UNIQUE performs instant de-noising from the first frame onwards, avoiding the need to wait some frames before getting a stable and acceptable de-noising, resulting in time saving. Dynamic UNIQUE provides an optimal contrast harmonization with enhanced details, while the overall impression remains natural, and a comparable image impression between RF and DR images.

An integrated area dose calculator allows radiation dose monitoring for every individual image or sequence as well as cumulated per examination, based on the examination generator and collimator settings.

The system includes the necessary DICOM interoperability services ensuring smooth workflow through standardized patient list management and secure storage of examinations to PACS (Worklist Management, Modality Performed Procedure Step/MPPS, Image Export and Storage Commitment, Print for radiography images).

Specifications:

Table

- Dimensions
  - Table height: 65 cm to 133.3 cm (25.6 inch to 52.5 inch), elevating, motorized

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- Elevation range: 68.3 cm (26.9 inch)
- Elevation speed: 2.5 cm/s (1 inch/s)
- Movements
  - Tilt angle: - 90°to + 90°
  - Tilt speed: 2 speeds, 4.5°/s and 6.5°/s
  - Automatic stop in horizontal position

#### Tabletop

- Total dimensions: 73.8 cm x 235.6 cm (29 inch x 92.8 inch)
- Radiolucent area: 221.4 cm x 55.4 cm (87.2 inch x 21.8 inch)
- Tabletop to detector distance: Min. 12.5 cm (4.9 inch)
- Shape: Flat
- Material: micro sandwich of laminate, carbon and foam
- X-ray attenuation: 0.6 mm (0.02 inch) Al (at 100 kVp, HVL = 2.7 mm (0.1 inch) Al)
- Maximum patient weight without limitations in movements: 284 kg (626 lbs)
- Movements
  - Lateral: 32 cm (12.6 inch), +/- 16 cm (6.3 inch)
  - Longitudinal: only detector movements to improve patient comfort
- Movement speed
  - Lateral: 5 cm/s (1.9 inch/s), soft start and stop, Auto centering
  - Longitudinal: detector movement 3 cm/s (1.2 inch/s) to 20 cm/s (7.9 inch/s)

#### Table tube column, detector assembly

- Movements
  - Range: 148 cm (58.3 inch) longitudinal, motorized
  - Speed: Variable, slow for positioning, high for travel maximum speed from 3 cm/s to 20 cm/s (1.2 inch/s – 7.9 inch/s)
- Patient coverage: 193 cm (76 inch), without patient movement
- Angulation
  - Movements: Motorized
  - Range: +/- 40°
  - Speed: 11.2°/s
  - Supporting functions: automatic centering of target organ during oblique projections in fluoroscopy, and oblique exposures at both ends of tabletop possible
- Source image distance (SID)
  - Range: 113 cm to 183 cm (44 inch to 72 inch)
  - Movements: Motorized
  - Speed: 4.1 cm/s (1.6 inch/s)
  - Focal spot to floor distance (in 90°position): 51.5 cm to 211.5 cm (20.3 inch to 83.3 inch) without angulation
  - Tube rotation: Manual, Range - 90°/ + 180°
  - Stop position: - 90°/ - 50°/ - 40°/ 0°/ + 40°/ + 50°/ + 90°/ + 180°
- Compressor
  - Movements: Motorized
  - Activation: Remote controlled
  - Compression force: Variable, 3 kg to 15 kg (6.6 lbs to 33 lbs) in 0.5 kg (1.1 lbs) steps

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- Distance to table top in use: 13.8 cm – 38.8 cm (5.4 inch to 15.3 inch)
- Compressor parking: Automatic, behind tube stand
- Cone: Removable

#### Eleva workspot

- Computer
  - Based on 3.9 GHz, Intel Core I7 processor
  - 16 GB RAM memory
  - 1 TB Solid State Disk (SSD)
- Monitors
  - Two high quality color LCD monitors for the control room, one with touchscreen
  - Size: 21.3 inch
  - Matrix: 1600 x 1200 pixels (2 Megapixel)
  - Pixel pitch: 0.270 mm
  - Calibrated luminance: >700 cd/m<sup>2</sup>
  - Luminance ratio: >800:1
  - Dimensions: 492 x 394 mm (19.4 x 15.5 inch)
  - DICOM calibrated for room environmental illuminance from 0 to 1000 LUX
  - DICOM illuminance compensation automatically adjusted for room illuminance

#### Comprising:

- Fluoroscopy table
- Two adjustable handgrips
- Adjustable footrest
- Touchscreen geometry control console
- Double footswitch for fluoroscopy and exposure
- Eleva workspot computer, keyboard and mouse, cables
- Two high quality monitors for the control room
- Eleva application and examination database software and licenses
- Eleva dynamic images review software and licenses
- Windows 7 system software and licenses
- Dynamic UNIQUE advanced multi-resolution image processing
- Shutter and Image Verification tool
- Solid Core Software and license
- Dose calculation license
- DICOM Worklist Management software license
- DICOM Modality Performed Procedure Step (MPPS) software license
- DICOM Image Export and Storage Commitment software license
- DICOM Print for radiography images software license
- Instruction for use
- Quick reference guide
- User documentation

#### 1 Monitor in Examination Room

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Monitor to be placed in examination room.

Main benefits at a glance:

- Live image feedback for nearby procedures or for the staff in the room
- Wide size, high brightness LCD technology for crystal clear and flicker-free images
- Flat design for low footprint in the examination room
- Lightweight for easy maneuverability

Specifications:

- Type: LCD color monitor IPS
- Size: 21.3 inch
- Matrix: 1600 x 1200 pixels (2 Megapixel)
- Pixel pitch: 0.270 mm
- Calibrated luminance: >700 cd/m<sup>2</sup>
- Luminance ratio: >800:1
- Dimensions: Approx. 495 x 425 mm (19.5 x 16.7 inch)
- Weight: Approx. 15.6 lbs.
- DICOM calibrated for room environmental illuminance from 0 to 1000 LUX
- DICOM illuminance compensation automatically adjusted for room illuminance

Comprising:

- Monitor

### **Ceiling Suspended Radiography Tube**

Philips CSM ceiling suspended radiography tube provides great flexibility in the examination room for radiographic exposures.

Main benefits at a glance:

- High flexibility due to the ability to place the tube almost anywhere in the room
- Very convenient for working with a vertical stand (option), or for free exposures like in a stretcher or a wheelchair
- Ergonomic handle, control buttons and release brake, as well as convenient color-coding of movements
- Wide 16.5 cm (6.5 inch) LCD display on tube head for clear information and statuses
- Integrated centering laser in the tube head for easy positioning

The CSM ceiling suspension carrying the X-ray tube gives freedom for a wide range of longitudinal and transverse movements in the room, allowing performing vertical stand examinations, as well as lateral projections and free exposures using the SkyPlate detector (option) or PCR cassettes. Thanks to a four-part telescopic column and an award-winning control handle, the system can be operated with only one hand and easily positioned close to the patient.

The clear and wide LCD information display and controls on the tube head, combined with the Eleva alternative workflow concept and automatic tube tracking, provide high projection flexibility

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plus quick and easy handling. A convenient room height adjustment at installation allows the system to fit almost any room height, to achieve the necessary source-image distance, and to go down to the floor for lower extremity work.

Specifications:

- Ceiling Suspension CSM
  - Four-part aluminum telescopic column with spring counter balanced holder for X-ray tube assembly, adaptable to individual room heights
  - Ceiling height at source-image distance 110 cm (44 inch): 2.65 m to 3.20 m (8 foot 8.3 inch to 10 foot 5.9 inch)
  - Minimum ceiling source distance: 87.1 cm (34.3 inch)
  - Possible room height adjustment: 37.5 cm (14.8 inch)
  - Lowest tube position: 30 cm (11.8 inch) measured from center of beam to the floor
  - Length of rails: base rails 4.3 m (14 foot 1.3 inch), optional rails extension 2.7 m (8 foot 10.3 inch)
  - Longitudinal travel with Comfort Track and Comfort Move: 3.44 m (11 foot 3.4 inch), 6.14 m (20 foot 1.7 inch) with rails extension option
  - Transverse travel: 1.50 m (4 foot 11 inch) with short transverse rails, 3.22 m (10 foot 6.7 inch) with long transverse rails
  - Vertical travel: 1.65 m (5 foot 5.2 inch)
  - Rotation of focal spot around vertical axis of column: 360° (±180°), with rotation stop +180°/-165° and lock position every 45°
  - Angulations of focal spot around horizontal axis: ±125°, lock positions 0° and ±90°
- Control handle
  - Centering device in longitudinal and transversal directions
  - Brake/locking controls and central three-axis brake-release at lowest position of handle
  - Wide 16.5cm (6.5 inch) LCD information display and control buttons
- Collimator
  - Motorized automatic collimation, manual overrule possible, with light field indicator
  - Angle of aperture and rotation: 2 x 15°, ±45°, depending on the collimator (see type number plate)
  - Timer switch: up to 30 s
  - Inherent filter value: <0.3 mm at 100 kV, depending on the collimator
  - Added filters: 2 mm Al or 1 mm Al + 0.1 mm Cu or 1 mm Al + 0.2 mm Cu
  - Source-image distance measurement tape
- X-ray Tube
  - Philips Super Rotalix high power X-ray tube SRO 33100, with dual-focus, rotating anode and ROT 380 assembly
  - Two focal spots 0.6 and 1.2
  - Maximum power
  - With focal spot 0.6: 33 kW
  - With focal spot 1.2: 100 kW
  - Anode angle 13°
  - Maximum tube voltage 150 kV
  - Anode heat storage capacity 220 kJ (300 KHU)
  - Assembly heat capacity 1.260 kJ (1.700 KHU)
  - Continuous anode input power 190 W
  - Minimum anode speed 8,000 to 10,000 revolutions/minute

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- Build in filter 2 mm Al (5/64")
- Total filtration minimum 2.5 mm Al (105/1024")
- Double tube overload protection
- Total weight approx. 26 kg

Comprising:

- Four-part telescopic column
- X-ray tube assembly with collimator
- Control handle with buttons and LCD screen
- Rail system
- Installation cables and high voltage cables
- Set of markers for preferred source-image distance
- Philips Comfort Track system motorization

### **CS Base Rails 14' 1.3"**

For longitudinal carriages of CS monitor ceiling suspension or auxiliary ceiling suspension; length 4.3 M.

Comprising:

- 2 CS rails.
- Adjustable end/stops.
- Spacer strips.
- Fixing parts.
- Brake rails.

Compatible with:

- CS 2 CS 4.
- Monitor ceiling suspension.
- Rail extension 9890 010 01622.
- Rail for cable carrier 9890 010 02422.

### **Large SkyPlate Set**

Philips SkyPlate is the next generation of wireless portable detectors. It is an integrated part of the Eleva platform and defines a new dimension of flexibility and freedom within the radiography room.

Main benefits at a glance:

- DR speed and excellent image quality with the positioning flexibility of CR
- ISO compliant cassette size format (35 x 43 cm, 14 x 17 inch) to fit into standard operating room tables
- Reduced patient infection risk and easy handling thanks to the detector's cable-free design
- Easy handling for free exposures
- Flexible positioning for lateral or oblique projections
- Instant image display

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- State-of-the-art CsI detector technology and UNIQUE image processing for optimal image quality at the lowest dose
- Robust shell of the detector to protect it from water drops and dust
- Easy, precise and safe positioning around the patient, even for difficult projections, provided by a rich set of dedicated accessories
- SkyPlate sharing license, to use the wireless detector on another compatible Philips X-ray system

The SkyPlate large covers all relevant anatomy with its large detector area of 35 x 43 cm (14 x 17 inch). Depending on anatomy, it can be positioned in different orientations and offers full diagnostic information even with large patients. Combined with Philips advanced UNIQUE image processing, grid-line removal algorithm and state-of-the-art Cesium Iodide (CsI) technology, it has an excellent detective quantum efficiency (DQE) and helps to reduce the required patient dose. It provides instant image display with superb image quality on the Eleva workspot for increased diagnostic confidence.

Thanks to its cable-free design, the SkyPlate allows quick and efficient procedures with high hygienic standards. Its robust design and a rich set of optional dedicated accessories (mobile holder, bed holder, attachable grids and hygienic bags) offer easy, safe and quick positioning throughout the hospital. Special projections like laterals can easily be performed without moving the patient. Its slim design is optimized for critical environments and minimizes the risk of interfering with life supporting equipment, cables, tubes and catheters.

The detector features advanced low-power Wi-Fi connection technology and is designed according to IEC 60601-1-2. It is compliant with life supporting devices designed according to IEC 60601-1-2 and with pacemakers designed according to IEC (EN) 45502-2-1 when keeping indicated distances. The SkyPlate battery can be removed and recharged in the battery charging station. Once a battery is empty, a new one can be inserted to immediately continue working with the SkyPlate.

SkyPlate sharing allows taking the SkyPlate from the system and using it with other compatible Philips MobileDiagnost wDR, DigitalDiagnost or ProGrade systems. Thereby, SkyPlates can be used efficiently wherever needed and help driving down investment costs. Compatible systems need to carry the SkyPlate Sharing license to participate in SkyPlate sharing.

#### Specifications:

- Size: 35 x 43 cm (14 x 17 inch) SkyPlate large wireless digital flat detector with Cesium Iodide (CsI) technology, active detector area 34.48 x 42.12 cm (13.6 x 16.6 inch) (2330 x 2846 pixels), pixel pitch 0.148 mm
- Image resolution: up to 3.38 line pairs per mm
- Maximum patient weight: 220 lbs. for weight-bearing examinations
- WLAN network standard: IEEE802.11 a, b, g or n (configurable)
- Encryption: default WPA2
- Optional attachable grids
  - Portrait orientation: 44/8/130: 44 lines/cm (112 lines/inch), ratio 8, focus 130 cm (51 inch)
  - Landscape orientation: 40/8/130: 40 lines/cm (100 lines/inch), ratio 8, focus 130 cm (51 inch)

#### Comprising:

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- SkyPlate large 35 x 43 cm (14 x 17 inch)
- Two exchangeable batteries
- Set of 100 hygienic bags
- Software licenses
- SkyPlate sharing license
- Documentation

Compatible with:

- DigitalDiagnost Release 4.x, MobileDiagnost wDR Release 2.x, ProGrade 1.x
- Attachable grids for SkyPlate 35 x 43 cm (14 x 17 inch) in portrait and landscape orientation

### **SkyPlate Infrastructure Kit**

The SkyPlate Infrastructure Kit is comprised of a wireless access point, a battery charger and a back-up cable.

Main benefits at a glance:

- All-in-one kit to set the customer up with the necessary parts for working with the SkyPlate
- State-of-the art components

The access point enables the wireless transmission of clinical images from the SkyPlate to the access point. The access point is hard wired to the radiography system and images are sent from there to the Eleva work station for review, editing and further distribution. The battery charger is designed to charge up to three batteries simultaneously. The back- up cable enables the transmission of clinical images in the case that there is no wireless transmission between the SkyPlate and the wireless access point possible.

Specifications:

- Wi-Fi access point
  - according to regional requirements for Wi-Fi transmissions
- SkyPlate battery charger
  - It offers a 4 bar charge status color indication per battery: 0-25%, 25-50%, 50-75%, 75-100%.
  - IP41 compliant (IEC60529).
  - Dimensions 172 x 322 x 48 mm
  - SkyPlate back- up cable

Compatible with:

- SkyPlate large 35 x 43 cm (14 x 17")
- SkyPlate small 24 x 30cm (10 x 12")

### **Shoulder Support**

Pair of shoulder supports that can be easily attached to the table rails. The quick set lever stop allows to mount this accessory at any position along the table rails.

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Compatible with:

- Diagnostic tables with flat section rails

**X-Ray Wall box**

13 ga steel Wall Connection Box

**CABLES F/ EASY DIAG-SCP INSTALL**

Cables for Easy Diagnostic-SCP Install

**UPS**

The UPS is included in case of a power breakdown for EasyDiagnost Eleva core components (System Controller, Remote Input/Output, Automatic Image Processing, ViewForum, Ethernet Switch, Firewall). It ensures that the completion of the last task and storage of images can be performed.

- Bridging time: 60 minutes
- Maximum charging time: 6 hours

**DXR CombiDiagnost Handover 28h Onsite**

Clinical Education Specialists will provide twenty-eight (28) hours of CombiDiagnost R90 Onsite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Students should attend all 28 hours. CEU credits may be available if the participant meets the guidelines provided by Philips. Please read guidelines for more information. Depending on your system configuration, the first four (4) hours onsite may be spent configuring new equipment for specific clinical needs, as well as reviewing important safety features and quality procedures. Please read guidelines for more information. Note: Site must be patient-ready. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

It is highly recommended that part 989801292145 Additional 16hr Onsite is purchased as a follow up training. Follow Up training should be scheduled three (3) months after initial training.

Education expires one (1) year from equipment installation date (or purchase date if sold separately).

**2**

**High Performance Room**

**1**

Flexible 2-in-1 remote controlled system to perform radiography and fluoroscopy procedures in one single room with high room performance.

Main benefits at a glance

- Flexible table geometry movements for easy patient positioning and projections
- Adjustable table source image distance (SID) up to 183 cm (72")



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Exposure output power

- 40 - 125 kV (main beam) for Rad and dynamic exposures on the table
- 40 - 150 kV (second beam with wall Bucky and free exposures)
- 1 - 1100 mA
- 1 ms - 4 s with AEC (Automatic Exposure Control)
- 1 ms - 4 s without AEC

Manual mode

- Two-factor technique (kV - mAs)
- Three-factor technique (kV - mA - s)

Automatic mode

- One factor falling load (kV )
- Two factor constant load (kV/mA)
- Automatic kV reduction
- Support of IQX Intelligent exposure

Fluoroscopy techniques

For enhanced image quality and dose management, the generator supports continuous fluoroscopy and the two pulsed fluoroscopy techniques with in-pulse control PCF and Philips GCF (option, except for China).

Fluoroscopy output with PCF

- 40 - 125 kV
- 0.2 - 30 mA with continuous fluoroscopy
- 1.5 - 60 mA with pulsed fluoroscopy

Fluoroscopy output with GCF

- 40 - 110 kV
- 0.2 - 30 mA with continuous fluoroscopy
- 1.5 - 200 mA with pulsed fluoroscopy

Area Dose Calculation and display and fluoroscopy entrance dose rate limitation.

Automatic mains adaptation.

Comprising

- X-ray generator

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4		<b>Grid-Controlled Fluoro (GCF)</b>	1		

Grid-Controlled Fluoroscopy (GCF) is an exclusive Philips technology of pulsed fluoroscopy for fully automatic dose management with in-pulse regulation. A special grid switch-mechanism in the GCF tube allows to create sharper radiation pulses than with the PCF tube. Therefore, unwanted soft radiation is eliminated. Additionally, the X-ray parameters kV, mA and time are controlled by a unique integrated mechanism within each single pulse (in-pulse control). The combination of sharp pulses and Philips in-pulse control results in efficient dose management at superb image quality.

Main benefits at a glance

- Philips GCF delivers only dose that contributes to the image
- Sharp pulses without step-up or tail of soft radiation being automatically adjusted in real-time in length and intensity
- For pediatric examinations, Philips GCF enables a dose rate (\*1) reduction of up to 68% (\*2) compared to PCF, depending on patient type and clinical application
- Dedicated and proprietary pediatric settings with a further decreased pulse time and an optimized kV/mA-curve
- Excellent image quality for fluoroscopy with each single pulse
- On the fly selection of three different pulse rates (user programmable between 0.5 to 30 frames per second) and continuous fluoroscopy for maximum user flexibility
- GCF lock-in mode to maintain image quality during abrupt variations in absorption e.g. bringing lead gloves in the beam to position a patient
- Adaptive measuring fields maintain a constantly high image quality even when the field of interest is limited by shutters moving

(\*1) Dose rate determined according to IEC 60601-2-54, 203.5.2.4.5.102, System set up: detector format 43 cm x 43 cm (17" x 17"), patient type children, 0.1 mm Cu + 1 mm Al filter, reduced dose and pulsed slow fluoroscopy mode with 2 pulses/s, Phantom: 5 cm (2") PMMA

(\*2) Relative difference of two reference air kerma rates between system with GCF and system with PCF

Specifications

GCF

- Pulse time: 5 to 20 ms
- Pulse frequency: 0.5 to 30 frames per second

X-ray tube

Philips High Performance Super Rotalix Metal high power X-ray tube SRM 0608, with dual-focus, rotating anode and ROT 505 GS assembly.

Main benefits at a glance

- Especially adapted to high throughput environments
- Allows high continuous output thanks to high heat dissipation
- Universal field of application due to optimal focal spot-output ratio
- Support of Philips' exclusive Grid Controlled Fluoroscopy (GCF) pulsed fluoroscopy technology

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Specifications

- Two focal spots 0.6 and 0.8
- Nominal anode input power
  - with focal spot 0.6: 44 kW
  - with focal spot 0.8: 64 kW
- Anode angle 12°
- Nominal tube voltage 125 kV
- Anode heat storage capacity 593 kJ (800 kHU)
- Assembly heat capacity 1.700 kJ (2.300 kHU)
- Continuous anode input power 250 W
- Minimum anode speed 9,000 to 10,800 revolutions/minute
- Total filtration minimum 2.5 mm Al (IEC 60522, 75 kV)
- Double tube overload protection
- Total weight 29 kg

Comprising

- Grid-Controlled Fluoroscopy (GCF) generator module and license
- Philips tube SRM 0608 ROT 505 GS

<b>5</b>	<b>Console and trolley for in-room nearby use</b>	<b>1</b>
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The nearby control trolley is a compact and robust movable cart, providing the full set of control functions to work right next to the patient in the examination room.

Main benefits at a glance

- Convenient movable trolley can be placed wherever needed in the room
- Wide trolley base for high stability even in difficult conditions
- High quality wheels for effortless and precise rolling
- Touchscreen geometry control console triggers all geometry movements and acquisition settings
- Footswitch integrated in trolley base to trigger fluoroscopy and exposures acquisitions
- Footswitch can be detached from trolley for more flexibility
- Sealed waterproof keyboard with touchpad can be easily cleaned and disinfected
- Cable reel at the back for safely wrapping cables

Specifications

- Trolley (including geometry control console, keyboard and footswitches)
  - Dimensions
    - Width: approx. 555 mm (21.9 inch)
    - Height: approx. 992 mm (39.1 inch)
    - Depth: approx. 686 mm (27 inch)
  - Weight: approx. 26 kg (57.2 lbs)
- Keyboard
  - Type: alphanumeric, including numeric keypad, function keys and touchpad

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- Sealed, waterproof, protection rating IP68
- Surface: silicon rubber, 100% latex free

Comprising

- Trolley on wheels
- Touchscreen geometry control console
- Footswitch for fluoroscopy and exposure
- Sealed waterproof keyboard with touchpad
- Cable sets

**6** **Ceiling suspension for one in-room monitor** **1**

The ceiling suspension for monitor is a robust, articulated, ceiling mounted support to hold one flat panel monitor and use in the examination room.

Main benefits at a glance

- Floor space saving thanks to the ceiling suspended concept
- Can be moved all around in the examination room depending on needs
- Mounting on ceiling rails plus two articulated arms for maximum positioning freedom
- Five high quality joints for effortless and precise positioning
- Large handle below and on both monitor sides for intuitive movements

Specifications (including monitor)

- Weight: approx. 84 kg (184.8 lbs)

Comprising

- Ceiling carrier rails, articulated arms, supports and joints, mounting parts
- Monitor cable set

**7** **Comfort Move** **1**

With Philips Comfort Move, relevant parts of the system geometry are motorized to support a fast, smooth and automated workflow within the daily routine in the X-ray room. Built-in safety measures include collision detection, force limitation, break management and dead-man control to position components safely with the patient in the room. Collimation and collimation light are set automatically to further release the user from making manual adjustments for radiographic routine procedure steps with the ceiling suspension.

Main benefits at a glance

- Automatic tube height adjustment in vertical direction (tube tracking)
- Automatic tube positioning for upper, centered or lower detector alignment at vertical stand (option)
- Auto-collimation of the tube, depending on the selected examination
- Automatic tube alpha rotation around the horizontal axis by +/- 125 °

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For systems with optional vertical stand (VS):

The motorization of the vertical stand makes it easy to set the appropriate detector height according to patient size. The motorized tilting (option) for the VS extends the possible application range to extremities, skeletal examinations, and even under table examinations using a trolley. This capability offers additional workflow enhancements on the system by enabling the upright Bucky unit to be automatically placed in different pre-defined positions as well as individual positions from -20° to +90°. With a single click, tube and detector can be linked to keep the tube centered to the detector while simultaneously setting the correct height of the detector (tube tracking). For specific examinations, the tube can automatically be positioned off-center to align the X-ray beam with the upper or lower border of the detector.

With Philips Comfort Move, Automatic Image Stitching exams (option) can be performed at the VS fully automatically including precise tube rotation and linear detector movements.

Main benefits at a glance

- Automatic tube and detector alignment/centering
- Automatic move-to-position of detector tray into pre-defined positions
- Manual and motorized height adjustment of detector tray, from 30 cm to 180 cm (11.8 inch to 70.9 inch)
- Convenient user interfaces located on both left and right sides of the detector tray, for quick and easy adjustment of movements
- Two different speeds, plus manual operation for precise positioning
- Motorized detector tray tilting (option)

Comprising:

- Motorization of the ceiling suspension column
- Motorization of the tube alpha rotation
- Motorization of VS (if present)
- Software license and documentation

<b>8</b>		<b>Digital VS vertical stand with tray for SkyPlate</b>	<b>1</b>	
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Philips height-adjustable vertical stand (VS) has a proven and smart design that makes no compromise on robustness, quality and work efficiency, even with challenging patients and difficult examination conditions. It is optimal for X-ray departments specializing in thorax examinations. The motorized tilting option extends the possible application range to extremities, skeletal examinations, and under-table examinations using a trolley.

This vertical stand features a SkyPlate tray to insert an optional SkyPlate detector. The detector can be taken out of the tray to perform free exposures in the room.

Main benefits at a glance

- Vertical stand mounted on the floor, optimal for chest X-ray and all wall Bucky applications
- SkyPlate tray to place a 35 x 43 cm (14 inch x17 inch) Philips SkyPlate wireless portable detector

Line #	Part #	Description	Qty	Each	Price
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- Easy-to-operate tray, allowing the positioning of the wireless portable detector in portrait or landscape orientation
- Depending on room layout requirements, tray can be configured at installation to be opened from left or right side
- Motorized height adjustment from 30 cm to 180 cm (11.8 inch to 70.9 inch) with two different speeds plus manual operation for precise positioning
- Customizable pre-defined positions (move-to-position) and numerous other well-planned features that significantly reduce the physical demands placed on the technologist
- Easy patient positioning with counterbalanced large vertical movement range
- Large and ergonomic patient grips on both left and right sides of the detector for safe and comfortable patient positioning
- Optional rotatable patient stretch grip on top left or right side of the detector tray
- Convenient user interfaces on both left and right sides of the detector, for quick and easy adjustment of movements, collimation, field alignment and orientation, selection of automatic exposure control chambers, and tracking mode
- Five-field automatic exposure control chamber for optimal image quality and low dose, and positioning flexibility
- Automatic ceiling suspension (option) tube height adjustment to detector height (tube tracking)
- Automatic collimation for X-ray beam limitation to digital flat detector, according to pre-programmed examination parameters
- Optional motorized detector tilting (-20° to +90°) to support examination of patients on a stretcher, plus straightforward exams of extremities for seated or standing patients
- Removable grid for optimal image quality and low dose
- Convenient storage for two grids within the detector unit for immediate and safe storage

The motorized height adjustment from 30 cm to 180 cm (11.8 inch to 70.9 inch) measured at center of detector above the floor, gives a total lift of 150 cm (4 foot 11.1 inch) to adjust to a comfortable and safe working height with a choice of two different speeds. An integrated five-field automatic exposure control chamber ensures superb image quality at the low dose even for difficult projections, and provides positioning flexibility for various examinations without moving the patient. The removable grid can be stored conveniently and safely directly in the detector unit, behind detector tray.

When inserted in the tray, an optional SkyPlate covers all relevant anatomy with its large detector area of 35 x 43 cm (14 x 17"). It holds the detector securely in its position, avoiding the risk of accidental detector drop when opening the tray. Depending on anatomy, a wireless portable detector can be inserted in portrait or landscape orientation and offers full diagnostic information even with large patients. It is part of the Eleva platform and it defines a new dimension of freedom within the radiography room. Combined with Philips advanced UNIQUE image processing, grid-line correction algorithm and state-of-the-art Cesium Iodide (CsI) technology, it has an excellent quantum efficiency (DQE) and helps to manage the required patient dose. It provides instant image display with superb image quality on the Eleva workspot for increased diagnostic confidence.

At any time, the SkyPlate can be taken out of the vertical stand tray to perform free exposures in the room with high flexibility, even for the most challenging projections. This feature is particularly useful to perform laterals, oblique, weight bearing feet or examinations in bed or wheelchair.

Specifications

Line #	Part #	Description	Qty	Each	Price
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- Counterbalanced rugged column for motorized and manual vertical movement of the detector
- Vertical movement range: 30 cm to 180 cm (11.8 inch to 70.9 inch), measured at center of detector
- Installation: floor and wall attachment, or floor only (optional)
- SkyPlate tray where an optional SkyPlate can be placed in portrait or landscape orientation
- SkyPlate tray opening can be configured at installation for left or right operation
- Detector unit: 59.6 x 57.5 cm (23.5 inch x 22.6 inch)
- Optional tilting: -20° to +90°, motorized
- Automatic Exposure Control (AEC) with 5 measuring fields
- Operating: two user interfaces (left and right)
- Removable grid 40/8/140: 40 lines/cm (100 lines/inch), ratio 8, focus 140 cm (56 inch) for use with source-image distance from 110 to 180 cm (44 inch to 71 inch). A different default grid can be chosen in order questionnaire. Additional grids are available in accessories.
- Grid storage: for up to two grids within the detector unit

Comprising:

- VS
- Tray for SkyPlate detector
- Default grid 40/8/140. A different grid can be chosen in order questionnaire. Additional grids are available in accessories.
- Software licenses
- Documentation

**9 Motorized tilting of the VS vertical stand 1**

The motorized tilting option for vertical stand (VS) brings workflow enhancements on the system by enabling the upright Bucky unit to be automatically placed in different positions.

Main benefits at a glance

- Extends the possible application range to extremities, skeletal examinations, and even under-table examinations using a trolley
- Reduces technologist physical involvement by providing motorized tilting movements
- Tilting by just pressing a move-to-position button or by pressing and holding a dedicated movement button (e.g. vertical movement of the Bucky unit)
- Motorized height adjustment from 30 cm to 180 cm (11.8 inch to 70.9 inch) with two different speeds, plus manual operation for precise positioning
- Convenient user interfaces on both left and right sides of the Bucky unit, for quick and easy adjustment of movements, including motorized tilting

Specifications

- Tilt from -20° to +90° horizontal position, via 0° vertical position
- Vertical movement range: 30 cm to 180 cm (11.8 inch to 70.9 inch), measured at center of Bucky unit

Comprising

Line #	Part #	Description	Qty	Each	Price
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- Tilting mechanism between vertical stand column and Bucky unit
- Electronic controlled motor drive
- Set of cables
- Software license

Compatible with

- VS

**10 Automatic Image Stitching 1**

The Automatic Image Stitching package is an advanced orthopedic feature to perform long lengths imaging fully automatically. After the automatic acquisition of the image set (up to three images depending on the requested body part), a composite image is created instantly and automatically on the Eleva workspot. Images are acquired in upright position at the VS vertical stand using the SkyPlate wireless portable detector placed in the SkyPlate tray, or a built-in fixed detector.

Main benefits at a glance

- Simple to use for the technologist by only defining the collimation light on the patient
- System automatically acquires the number of necessary images based on the defined collimation
- Automatic tube and detector movements during acquisition
- Acquisition of two or three images depending on collimation
- Single-focus tube rotation to minimize image distortions
- Automatic software stitching images together in one composite image
- Dedicated orthopedic measurements included
- Advanced stitching software algorithm based on anatomical structures and lead ruler

Thanks to the precise rotation of the tube around a defined center point, image acquisition is performed with a single focus instead of multiple foci resulting in more accurate image overlaps and minimized image distortion. UNIQUE image processing is applied automatically to the completed composite image to ensure a harmonized image contrast and image impression.

The automatic image stitching package includes tools to measure Cobb's angle, femoral head difference and vertical alignment of the vertical spine at the Eleva workspot.

Specifications

- Number of acquired images: up to 3
- Overlap area between images: 4.5 cm (1.8 inch)
- Patient coverage at vertical stand
  - SkyPlate inserted in portrait orientation: 117.3 cm (46.2 inch)
  - SkyPlate inserted in landscape orientation: 94.5 cm (37.2 inch)
  - Fixed detector: 120 cm (47 inch)

Comprising

- Automatic Image Stitching software and license

Line #	Part #	Description	Qty	Each	Price
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- Removable stitching grid 40/8/180: 40 lines/cm (100 lines/inch), ratio 8, focus 180 cm (71 inch) for use with source-image distance from 126 to 315 cm (50 inch to 124 inch)
- Lead ruler

Compatible with

- CombiDiagnost R90
  - VS stand with SkyPlate detector
- ProxiDiagnost N90
  - VS stand with SkyPlate detector
  - VS stand with fixed detector
- Requires Comfort Move motorization option
- Ceiling suspension with long transverse rails is recommended to easily reach the necessary source-image distance of 3 m (118 inch)
- The optional patient stand is recommended for better patient positioning and to reduce the risk of movement artifacts.

**11 SkyFlow Plus 1**

To avoid extensive scatter radiation on images, an anti-scatter grid is sometimes used, typically for anatomies such as chest, abdomen or pelvis. With SkyFlow, Philips presents an innovative and exciting way to enhance image quality for all anatomies where grid was recommended without applying an anti-scatter grid. Such as Abdomen, Chest, Knee, Pelvis, Shoulder.

For customers who are using a grid, SkyFlow Plus can provide an image contrast level close to grid images. This implies that no grid needs to be carried, positioned and aligned. Also, chances for potential re-takes due to grid cut-off or misalignment will be reduced.

Customers who are not using a grid today will see an improved image impression by using the SkyFlow functionality. Even though no grid is applied and dose levels remain unchanged, image quality will improve.

The SkyFlow functionality is especially suitable for bariatric patients. Once the license is installed at the system, it does not need a single technologist interaction and is automatically applied on images.

Comprising

- SkyFlow Plus license
- Documentation

Compatible with

- MobileDiagnost wDR release 2.x
- CombiDiagnost R90
- ProxiDiagnost N90

**12 Dose Reporting in DICOM Structured Report format 1**

Line #	Part #	Description	Qty	Each	Price
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This DICOM service allows exporting patient radiation dose details in the Structured Report DICOM standard format.

Main benefits at a glance

- Standard, modern and comprehensive format for exporting patient radiation exposure information
- Exports dose information on study (accumulated) and exposure levels
- Allows detailed exposure dose monitoring on the PACS or dedicated dose management system

Typically, one dose report is created at the end of each procedure step performed on the system. This dose report collects together all the irradiation events from the procedure step and cumulates all dose values for the procedure step as a whole.

By exporting patient radiation dose in a comprehensive, very detailed and standard format, DICOM Structured Report allows to perform precise dose monitoring and analysis on the PACS or with a dedicated dose management system. This assists institutions to ensure their policies, procedures and protocols are adequate and being followed appropriately in the department. Moreover, it can help determining how changes in techniques and protocols impact radiation dose as well as image quality, to maintain patient doses As Low As Reasonably Achievable (ALARA).

Comprising

- Software license

Compatible with

- DigitalDiagnost 3.1 and above
- MobileDiagnost wDR 1.1. and above (Dose Area Product Meter required)
- EasyDiagnost 5.0
- ProGrade Rel 1 and above
- CombiDiagnost R90
- ProxiDiagnost N90

13

**Clinical Quality Control software**

1

This powerful image statistic tool provides the advanced user with functionality to analyze rejected images regarding operators and rejection reasons. It serves as well for monitoring and analyzing general parameters. The data files can be downloaded in standard format for further usage or archiving on a PC.

It perfectly supports the quality standards of the department and teaching situations.

Buying this feature once for a system will make the functionality available on all Eleva workspots that have been purchased for this system.

Note: for Essenta DR, Essenta DR Compact, EasyUpgrade DR and PCR Eleva systems, generator data will not be reported automatically.

Line #	Part #	Description	Qty	Each	Price
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Comprising

- Software license

Compatible with

- DigitalDiagnost 2.0 and above
- DigitalDiagnost C50
- DuraDiagnost 1.0 and above
- Essenta DR 1.0 and above
- Essenta DR Compact 1.0 and above
- MobileDiagnost wDR
- EasyUpgrade DR 1.0 and above
- PCR Eleva 1.0 and above
- ProGrade Rel 1 and above
- ProGrade D70
- CombiDiagnost R90
- ProxiDiagnost N90

14		<b>Additional set of documentation</b>	1		
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Additional set of documentation

15		<b>Stretch grip for the VS or VM vertical stand</b>	1		
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The stretch grip for vertical stand improves examination conditions and patient comfort.

Main benefits at a glance

- Allow the patient to comfortably keep his arms overhead or beside the Bucky unit by holding the grip
- Ergonomic U-shape providing different grip heights to adapt to patient size
- Can be inserted at the top left or right side of the Bucky unit, depending on the situation
- Convenient wall mounted holder for immediate and safe storage

Specifications

- Metallic U-shape grip
- Rotatable from -90° to +90° around the vertical axis

Comprising

- Stretch grip
- Storage holder to be wall mounted

Compatible with

- VS and VM vertical stands
- This option is only selectable for BuckyDiagnost when the VS Advanced package is taken





Line #	Part #	Description	Qty	Each	Price
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Comprising

- Attachable frame with handle

Compatible with

- SkyPlate large 35 x 43 cm (14 x 17")

<b>20</b>		<b>Arm support</b>	<b>1</b>		
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Accessory with quick set lever stop.

Compatible with:

- Diagnostic tables with flat section locking rails

<b>21</b>		<b>Side bar</b>	<b>1</b>		
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A rod to mount at the side of the table top with two quick set lever stops.  
To support the patient during rolling over on the tabletop in several applications.

Compatible with:

- Diagnostic tables with flat section locking rails

<b>22</b>		<b>Table mattress</b>	<b>1</b>		
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Grey mattress for fluoroscopy systems with flat tabletop, allowing more comfortable procedures for the patient.

Specifications

- Length: 200 cm (78.7 inch)
- Width: 58 cm (22.8 inch)
- Thickness: 4 cm (1.6 inch)

The mattress is made out of foam embedded in a synthetic cover which is sealed at the side of the mattress. It can be easily cleaned due to its flat, non-textured surface.

Comprising

- Mattress

<b>23</b>		<b>Floor plate standard</b>	<b>1</b>		
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Floor plate to install in the room under the system base prior to system installation. The plate can be installed in-floor or top-floor, depending on room floor requirements.

Specifications

- Total length: 191.5 cm (75.4 inch), in two parts of 95.75 cm (37.7 inch)
- Width: 98.2 cm (38.7 inch)
- Thickness: 2 cm (0.8 inch)

For installation convenience, the plate is composed of two identical parts, which are assembled at installation.

Line #	Part #	Description	Qty	Each	Price
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Compatible with

- CombiDiagnost R90

Comprising

- Floor plate, in two parts
- Installation material: Aligning rods, screws, washers, caps

**24** **XR Add OnSite Clin Educ 16h** **1**

Clinical Education Specialists will provide sixteen (16) hours of tailored RAD, R/F or Surgery OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. Education expires one (1) year from the earlier of equipment delivery date or purchase date.

**25** **XR Add OnSite Clin Educ 24h** **1**

Clinical Education Specialists will provide twenty-four (24) hours of RAD, R/F or Surgery OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEU credits may be available for each participant that meets the guidelines provided by Philips. Please refer to guidelines for more information. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. Education expires one (1) year from the earlier of equipment delivery date or purchase date.

**26** **dXR Clinical QC 8 Hours** **1**  
**OnSite Training**

Clinical Education Specialists will provide eight (8) hours of Clinical QC RAD OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEU credits may be available if the participant meets the guidelines provided by Philips. Please read guidelines for more information. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.  
Education expires one (1) year from equipment installation date (or purchase date if sold separately)

**27** **dXR RIS Mapping 8 Hours** **1**  
**OnSite Session**

A Philips Clinical Education Specialist will provide an eight (8) hour RIS Mapping OnSite session to update customer RIS mapping codes on a specified system. This session does not include technologist training. No CEU's are available for this session. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during session except to demonstrate proper equipment operation if applicable.  
Education expires one (1) year from installation date (or purchase date if sold separately).

**28** \* **XD3007XRaySystemsBasicPart** **1**  
**2CTC5D**

Course Number: XD3007  
Course Title: X-Ray Systems, Basic part 2  
Course Length: 5 days  
Delivery Method(s): ILT  
Modality: Cleveland Training Center

Line #	Part #	Description	Qty	Each	Price
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**DESCRIPTION:**

The ILT provides fundamental information on the generation and application of X-rays for diagnostic imaging.

**PREREQUISITES:**

XD9115, X-Ray Systems, Basic part 1

**COURSE OBJECTIVES:**

After successful completion of this eLearning, the learner will have knowledge on the basics of:

- Medical application
- The physics of X-rays
- Radiation protection
- The building blocks of X-ray systems
- X-ray tubes
- Generators
- Image performance parameters
- The documentation systems of X-ray systems
- Planned Maintenance
- Installation

\* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF AN ALLIANCE CO; OP AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

**IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:**

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

<b>29</b>	<b>XD3938 CombiDiagnost R90 with CMS and VS 8 days</b>	<b>1</b>			
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Course Number: XD3938

Course Title: CombiDiagnost R90 with CSM and VS

Course Length/Location: 8 days instructor lead at Cleveland Training Center

Description:

Line #	Part #	Description	Qty	Each	Price
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This course covers:

- CombiDiagnost R90

This course provides the engineer with sufficient information and a structured insight in the CombiDiagnost R90 to perform service on the system.

The CS engineer is trained to a technical and applicational level, which will enable him to operate, perform Setting to Work and full Preventive and Corrective Maintenance according to the service philosophy.

Topics addressed are:

- Theory of operation
- Configuration and adjustments
- Planned Maintenance
- System Upgrade
- Faultfinding and repair
- Performance of system tests

The Ceiling suspension CSM, wallstand VS and SkyPlate detector are addressed during this training.

When you are already trained on DigitalDiagnost rel. 3 and / or 4, you will have to attend the 5 day XD3939 CombiDiagnost R90 training.

This course is an Instructor Led Training (ILT). This means that you must attend in-class/lab presentations and complete a series of lab exercises before you will be certified as trained.

The tasks must be completed under the supervision of an instructor or designee.

Prerequisites:

All required materials and detailed instructions are provided by your instructor.

Prerequisites:

- FC9001
- FC9002 - Safety (2 hours)
- FC9003 - Imaging Systems Safety (3 hours)
- FC9055
- FC9009
- FC9012
- FC9008 DICOM (5 hours)
- FC9017 Basic Networking (3 hours)
- FC9019 Digital Hospital Workflow (1 hour)

AND

- XD3007 Basic X-ray part 2
- XD9056 Eleva basics
- XD9933 SkyPlate detector

Course Objectives:

Upon successful completion of the course the learner will be able to:

- Operate the system
- Identify main parts of the system
- Configure and adjust the system and its components
- Perform Setting to Work

Line #	Part #	Description	Qty	Each	Price
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- Use performance tests
- Perform corrective maintenance on PCB / unit level

Upon successful completion of the course the learner will have knowledge of:

- Configurations and product structure
- Installation aspects
- Philips Support Connect (PSC)
- Safety aspects
- System diagrams

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IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

30		<b>Ceiling Track w/Column &amp; Handle Ext</b>	1		
		Mavig 2.5m Ceiling Track with Ceiling trolley, 360 degree column, and brake handle extension.			
31	*	<b>Rad Shield w/ Arm (Contoured) 61X76</b>	1		
		Contoured Rad Shield with Arm rest. 61X76			
32		<b>Clinical Services Flex Account</b>	2		
		2 training			
		<b>SP059Q Clinical Services Flex Account Agreement</b>			

Customer may request non-discountable clinical training ("Training") commencing on the warranty start date for a period of three (3) years ("Training Contract Period") from the Philips course catalogs available at the time Training is requested.

As Customer requests Training, the Flex Account balance will be reduced by Philips pursuant to the then current published and non-discountable list price for a given Training, multiplied by the number of Trainees scheduled to attend.

Subject to the terms and conditions in this Agreement, Philips will provide requested Training during the Training Contract Period until the monetary level of training is exhausted or falls below

Line #	Part #	Description	Qty	Each	Price
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the then current published and non-discounted list price of the requested Training. Training coverage expires at the end of the Training Contract Period and no credit for any unused funds may be carried forward to the next year.

Course catalogs include:

- Guided pathways to clinical excellence: Imaging Systems continuing education course catalog
- Education designed around you: Ultrasound course catalog
- Philips online Learning Center: [www.philips.com/learningcenter](http://www.philips.com/learningcenter)
- Some additional clinical education programs may apply

Selections can be made across one or any of these modalities: Computed Tomography (CT), Cardiovascular (CV), General X-Ray (GXR), Hybrid, Magnetic Resonance (MR), Nuclear Medicine (NM), CT Simulation and Treatment Planning (Oncology), and Ultrasound.

Philips Training may be conducted at Philips training facilities, the Customer location(s) listed below in this Agreement ("Customer Site(s)"), through on-line or remote training, or at a third party location as determined by Philips. Customer is responsible for scheduling Training for its employees ("Trainee(s)"). Philips will make reasonable efforts to accommodate Customers scheduling requests. All Training is subject to availability. Philips reserves the right to cancel or reschedule courses at its sole discretion.

Trainee(s) must meet the minimum admission requirements set forth in the course syllabus, must satisfy all prerequisites prior to admission and may be required to sign or acknowledge Philips safety checklist prior to receiving Training. PHILIPS MAKES NO WARRANTY THAT ANY TRAINEE WILL PASS ALL OR ANY PORTION OF THE TRAINING COURSES PROVIDED OR THAT THE TRAINING WILL RESULT IN ANY TRAINEE BEING QUALIFIED OR ABLE TO OPERATE THE SYSTEM.

Unless otherwise indicated in this agreement, all travel and living expenses incurred by the Trainee(s) will be the responsibility of the Customer.

To receive remote training Customer must provide Philips a secure location to store a Philips remote services ("PRS") router (or a Customer owned router acceptable to Philips) for connection to the products and Customer network; provide Philips appropriate access to the PRS router to enable Philips to access the products remotely; provide Philips with a dedicated broadband Internet access node including, but not limited to, public and private interface access suitable to establish a successful connection to the products through the Philips PRS and Customers network for Philips use in remote training, transmitting automated status notification from the products and regular uploading of products data files (such as, but not limited to, error logs and utilization data for improvement of Philips products and services and aggregation into new services). Unless Philips determines in its sole discretion that the products cannot be connected to the PRS, then Customer's failure to provide the access described in this paragraph will constitute Customer's waiver of its rights to remote training under this Agreement. Customer must identify, in writing, one (1) Customer representative to Philips who will manage and be responsible for Customer's selection and scheduling of all Training to be provided by Philips.