The EasyDiagnost Eleva is a nearby controlled (conventional) R/F system for routine Radiographic and Fluoroscopic examinations like barium and iodine studies, dedicated vascular and non-vascular diagnostics and interventional procedures. All system controls are at tableside, so in every phase of the examination the patient can get full attention. The spring balanced servo assisted tower allows easily controlled movements. The system can easily be integrated in today's hospital and departmental workflow requirements.

Comprising:

- EasyDiagnost Eleva Stand and Spot Film Device Digital
- Eleva concept
- Ergonomic Eleva User Interfaces
- Accessories
- Remote access

EasyDiagnost Eleva Stand and Spot Film Device Digital

The high quality R/F stand is designed with life-time quality in mind. From the choice of the materials up to the process oriented production line, the EasyDiagnost Eleva sets world standards in production quality and reliability.
The Spot film device ensures easy handling in every phase of the examination.

Stand and Spot film device feature:

- a highly durable and top quality stand, supporting an under table tube
- a smart overall design as well as low-noise and low-vibration mechanics to help patients feel taken care of during treatment
- servo assisted longitudinal and vertical movement of the tower for exact and fast positioning of the x-ray beam in all tilt positions
- spring balanced and servo assisted compression movements for effortless GI work
- a compression stop can be set in various positions for patient safety e.g. in myelograms
- covered table mechanics for protection of patient and user as well as for easy way to clean the system
- anti collision protection ensures safe movement of the stand during tilting and avoids damage to movable items (like stools, etc.)

Stand specifications:

Aramid tabletop
- foam core from 25 mm hard foam, upper layer 1.7 mm scratch resistant Aramid, bottom layer 0.8 mm plastic material with high durability
- filtration value (typical): 0,7 mm (at 100 kV, 2,7 mm AL HVL)

- size 200 cm x 69 cm (78.7 inch x 27.2 inch)
- maximum load 250 kg (550 lbs.) positioned in horizontal (0 degrees) or vertical (90 degrees) table position or
maximum load 180 kg (397 lbs.) in all positions
- longitudinal movement +/- 83 cm (32.7 inch), constant speed of 6 cm/s (2.4 inch/s)
- lateral movement -10 / + 9 cm, (-3.9 inch / + 3.5 inch), constant speed of 4.2 cm/s (1.7 inch/s)
- flat section rails for accessories

carrier for spot film device with patented spider servo for effortless and sensitive movements:
- longitudinal direction, servo assisted: 75 cm (29.5 inch)
- lateral direction 22 cm (8.7 inch), manual movement
- compression 30,5 cm (12 inch), spider-assisted (EasyTouch)
- parking 52 cm (20,5 inch), manual

Spot film device digital
Eleva Control Console (see below)
- carrier for different image intensifier 23, 31, 38 cm (9,12 or 15 inch)
- motorized oscillating and moveable carbon fibre covered grid 60 lines/cm (152.4 lines/inch), ratio 10:1, focus 80 cm 31.5 inch) without tube lift or 90 cm (35.4 inch) with tube lift
- AMPLIMAT chamber with automatic selection of measuring fields
- compression cone with motorized movement from and into parking position
- automatic collimation in X- and Y-direction, secondary shutters close to image intensifier entrance
- removable lead rubber radiation protection

X-ray shielding for under table tube operation resulting in optimal protection of the operator during routine operation

Eleva concept and Eleva User Interfaces

The Eleva concept increases productivity by adapting the system to the way you work: The system is customizable and performs to the users specification from pre-exam to archive to support varying workflow patterns (from high throughput exams to time consuming procedures) and increase overall efficiency.

The Eleva concept features:

customizable system pre-sets like SpectraBeam RF filter selection (option) and pre-defined print formats
bi-directional RIS coupling (option) automatically activating the appropriate Eleva system pre-sets to increase exam efficiency even more
revolutionary User Interface Concept, including several modules:
- Eleva Stand Control at the spot film device (examination room)
- Table Side Operation control
- Eleva Footswitch (examination room)

Eleva Examination Control

The Eleva Examination Control (incl. keyboard and mouse) integrates all functions for patient administration, selection of acquisition and fluoroscopy parameters as well as all controls for operating the different subsystems in one desk. It provides convenient, logical and ergonomic arrangement of controls and displays.
It supports the philosophy that only those controls and related displays are active that are required for a certain type of examination.

- Eleva Handswitch
- Ergonomically designed handswitch for exposure control from the control room.

Eleva Stand Control at the spot film device
To operate the system at table side (nearby operation).
All stand movements, operation of main imaging functions, fluoroflavour selection, image intensifier field size selection, collimator control, etc. can be selected without leaving the patient.

Eleva Control Console with:

- table movement controls (tilting, lateral & longitudinal tabletop moves)
- collimator control
- EasySelect display and control for Eleva settings
- SmartWindow display provides information on the system status
- single/serial exposure technique selection
- controls for 4 image intensifier formats
- frame speed selection
- more operational functions needed for examinations

EasyGrip:
The ergonomic handle for ambidextrous one-hand operation on the system. All system controls are available at the table for full attention to the patient. The dynamic fluorograb button is integrated within reach for instantaneous grabbing of fluoroscopic images and complete runs.

EasySelect:
Eleva programming parameters, dose levels and pulse rates can be selected via 10 softkeys for easy adjustment of examination parameters partly even under fluoroscopy

SmartWindow:
Display of guidance for all operational functions of the EasyDiagnost Eleva. A clear, situation dependent online information for error free handling is provided to the user.

Table Side Operation (available only with 2nd tube option, CS 2 or CS 4):
Located close to the footend of the table the TSO gives the user a convenient possibility to move the tabletop with the patient in the right position for e.g. phlebography studies. Longitudinal, lateral and tilting movements can be controlled.
In case of tomography (option) a test run can be executed from here without leaving the patient.

Eleva Footswitch
For exposure and fluoroscopy control in the examination room.

Accessories

The following accessories are standard:

- detachable footrest with easy-to-clean surface
- pair of ergonomic handgrips

A wide range of accessories are available as option to support the systems' multifunctional capabilities.

<u>Remote access</u>

Access to the system's service software procedures from a remote location via network or modem connection. Remote access to a system can shorten the time needed for e.g. changing system settings or problem diagnosis.

It contains:

- License for use of the Remote Access service software

<u>mShield:</u>

Philips mShield is part of an overall strategy to safeguard the data integrity of medical information systems.
It protects Philips fluoroscopy modalities from potential malicious software attacks within the hospital network.
It decouples the modality from the network and creates a secure environment.
By restricting traffic to only authorized devices, mShield acts to prevent malicious activity directed from the modality to unrelated devices on your hospital network.

Network communication can be restricted to DICOM communication and remote service only.
Thereby channels, which hackers need for attacks or viruses need to spread become unavailable.

The total system uptime can be increased.

The cycle time of required security upgrades (patches) can be elongated and synchronized with regularly maintenance activities.

No valuable treatment time is lost through system downtime or staff dealing with network problems.

Once installed it requires almost no maintenance or update.

Philips mShield's design is based on the latest recommendations of International industry standard bodies, such as NEMA,COCIR and JIRA, which recommend firewalls as an "effective and flexible tool" to safeguard the data integrity of medical information systems.

The mShield hardware is designed to fit into a professional medical environment with dedicated robustness against high temperature or high- voltage hazards.

It is located between the modality and the department network.

<u>mShield comprises:</u>

- mShield hardware
- Software license and documentation on CD
- Dedicated modality rule types

Compatible with:

- EasyDiagnost Eleva Rel. 3.1 and higher
- EasyDiagnost Eleva DRF Rel. 3.1 and higher

NRFA791 UPS

Uninterruptable Power Supply

The UPS feeds in case of a power breakdown the EasyDiagnost core components (System Controller, Remote Input/Output, Automatic Image Processing, ViewForum, Ethernet Switch, Firewall) to store images and/or complete the last task.

- Bridging time: 60 minutes
- Max. charging time: 6h

System Parts

- 989001003371 FLOOR PLATE EASY D. 45/90
- 989001003392 INSULATION KIT ED 45/90
- 980306030007 CABINET BOX (Quantity of 3)
- 980306690109 CABLES F/ EASY DIAG-SCP INSTALL

Clinical Education Program for Digital R/F Systems

Handover OnSite Education: Clinical Education Specialist will provide one 24 hour onsite training for RAD (Digital Radiography) for up to four(4) technologists, selected by the customer including technologists from night/weekend shifts if necessary. CEU credits may be available if the participant meets the guidelines provided by Philips. 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 training 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.

Education expires one (1) year from equipment installation date.

Handover OnSite Education: Clinical Education Specialist will provide one 32 hour onsite training for RF (Radiographic Fluoroscopy) for up to five (5) technologists, selected by the customer including technologists from night/weekend shifts if necessary. CEU credits may be available if the participant meets the guidelines provided by Philips. 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 training 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.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref#226227-080418

| 2 | **EZ PIC DVD Recorder** | 1 |

Record & Automatically Convert to DICOM with the EZ PIC

EZ PIC DICOM Video Acquisition and Recording Workstation enables easy capturing, reviewing, recording to DVD, and transferring of video sequences to PACS.

The EZ PIC eases workflow through multi-modality worklist queries that integrate patient demographic information with clinical studies. Clinical sequences are automatically captured on the high-capacity hard drive where they can be selectively reviewed, saved, and converted to DICOM for transferring to a PACS network. Sequences saved to DVD are burned with a DICOM reader for easy review by referring physicians or family members on a standard PC. Selective frames can also be sent to a printer for entry into medical records or for distribution.

Reduce radiological exposure through EZ review of clinical sequences mid-exam. In addition, clinical sequences can be viewed side-by-side and paused at different intervals for further observations. Jog/shuttle and zoom features can be used to further enhance playback capabilities. Studies recorded with the Perkins Electronics MDVDR can also be reviewed on the EZ PIC.

The EZ PIC is a single-source solution that is packaged for easy integration with multiple modalities. This comprehensive network solution is designed for future enhancements, maximizing the return on investment.

Primary Solution Components:

- EZ Pic DVD Recorder and Workstation
- Mobile Cart
- Speech Audio Package
- On-site installation (1 day) and on-site applications training (1 day), conducted by Perkins personnel
- 1 year warranty

| 3 | **15" I.I./TV-CCD** | 1 |

15-Inch (38 cm) Image Intensifier

Image Intensifier / Television subsystem: X-ray imaging subsystem for fluoroscopy and Digital Imaging for EasyDiagnost Eleva

Image Intensifier

- 15-inch (38 cm) multi-mode image intensifier
- Possible field sizes: 15 12.2 9.8 and 6.7" (38 31 25 and 17 cm)
- Titanium input screen for high spatial resolution high DQE and low dose.
- Fibre optic output screen for high light-transfer efficiency and high contrast.

    CCD
- Camera

- TV chain with 1024 x 1024 matrix CCD camera

- Horizontal and vertical scan reversal
- Average automatic dose rate control (ADC)
- Automatic gain control (AGC)
- Variable measuring fields

| 4 | **30 DEGREES TRENDELENBURG** | 1 |

30 Degrees Trendelenburg

90/30 tilting of the entire tabletop of the EasyDiagnost Eleva. This setting enables the user to move the patient from an upright position to a 30° head-down position (Trendelenburg) for various applications such as stomach colon or myelography etc.

A variable speed allows a smooth and careful start; acceleration to 6°moves the table quickly in the required position. Standardly the system slows down and stops at 0 for the user's convenience. A "no-stop" button next to the tilting handle avoids a stop in 0°position if an uninterrupted movement is required.

Specification:

- Positive tilting angle: 90 degrees
- Negative tilting angle: 30 degrees (Trendelenburg position)
- Tilting speed: Variable from 0-6 degrees/s
- Tilting movement controls at Spot film device as well as on the tableside operation console (TSO) in case the over-table tube (option) is available.

| 5 | **80 kW Generator with IQX** | 1 |

The 80 kW power pack is a microprocessor-controlled X-ray generator with sophisticated high-frequency inverter technology.

The generator is designed for a wide range of fluoroscopy and radiography applications. The unique dose-management system supports features like Grid Controlled Fluoroscopy, Pulsed Fluoroscopy and IQX. The generator is engineered for long-term reliability and a minimum single-space requirement.

Specification:

- Automatic and manual exposure techniques and automatic kV reduction (bolus chase)
- The generator supports the IQX function which regulates exposure settings during the exposure pulse (in-pulse controlled)
- Exposure output power:
  - kV   40 - 150 kV (Second beam table and wall Bucky)
        40 - 125 kV (II TV exposures)
  - mA 1 - 1100 mA
  - ms 1 ms - 4 s with AEC (Automatic Exposure Control)
        1 ms - 16 s without AEC
- Manual:
  - Two factor technique (kV - mAs)
  - Three factor technique (kV - mA - s)

- Automatic:
  - One factor falling load (kV)
  - Two factor constant load (kV/mA)

Automatic kV reduction (bolus chase)
Support of IQX Intelligent exposure

- Fluoroscopy techniques:
  For enhanced image quality and dose management the generator supports continuous fluoroscopy, Grid Controlled Fluoroscopy (option) and Pulsed Fluoroscopy (option) techniques
- Fluoroscopy output power:
  - kV 40 - 110 kV
  - mA 0.2 - 6 mA
- Access times:
  - from fluoroscopy standby to fluoroscopy mode: < 0.3 s
  - from fluoroscopy to radiography mode: 0.4 - 0.8 s (dep. on tube)
  - from radiography to fluoroscopy mode: 0.4 s
- Up to two double-focus tubes can be operated by a dual-speed rotor control Philips compatible tubes : RO, SRO, SRM
- Area Dose Calculation and display (option) and fluorosopy entrance dose rate limitation
- Automatic mains adaptation

IQX provides excellent, reliable and consistent image quality for digital exposures, both in static and dynamic studies. IQX controls and adapts the exposure parameters within the X-ray pulse. The automatic and fast regulation of kV during each exposure leads to crisp image quality for all types of studies, for all patients.

IQX features:

- Short exposure times eliminates motion blur.
  Exposure times are kept within an application-dependent customizable time range. This ensures that every single image is correctly exposed and free from motion blur, even with rapidly changing density.
- Automatic kV-optimization.
  IQX automatically adjusts the settings, relative to the standard kV-value recommended for a particular organ type. Thus the settings are optimized for the actual object density.
- Fast, in-pulse adaptation to (changes in) density.
  This kV-adjustment takes place within the first millisecond of the exposure, enabling adaptation to sudden changes in object density (e.g. during dynamic studies).

Tube voltage: 55 -125 kV
Controlling range: customizable relative to a defined start value

6   **Dose measurement**   1

The dose area product will be measured during radiographic and fluoroscopic procedures to provide dose information to the user.
Parameters are measured at the collimator and the data is displayed at the Eleva Examination Control and on the reference monitor (option).

Comprising:

A measuring chamber for each of the system's X-ray tubes including power and cabling

7   **DoseWise incl. GCF**   **1**

SRM 22 50 Super ROTALIX Metal tube assembly, including tube housing and automatic collimator in combination with Grid Controlled Fluoroscopy (GCF).

Grid Controlled Fluoroscopy

GCF is a Philips exclusive method of pulsed fluoroscopy, providing superb image quality at minimum dose. This is achieved by the use of a grid-switched X-ray tube SRM 22 50 and the control of X-ray parameters kV, mA and time within each single pulse (in-pulse control).

Major features of GCF are:

- Excellent image quality for fluoroscopy with each single pulse
- Maximum dose reduction
- On the fly selection of three different pulse rates (user programmable between 0.5 to 30 f/s) and continuous fluoroscopy for maximum user flexibility
- Dedicated and proprietary pediatric settings with a further decreased pulse time and an optimized kV/mA-curve
- 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 in

It contains:

- Grid controlled fluoroscopy (GCF):
  - Pulse time: 5 ms - 20 ms (typical)
  - Pulse frequency: 0.5 - 30 f/s

High-quality SRM 22 50 Super ROTALIX Metal Tube with electronic grid for EasyDiagnost Eleva and DRF room solutions.

Specification:

- Tube voltage: 40-125 kV
- Nominal focal spot values: 0.5 / 1.0 (IEC 336/93)
- Anode diameter: 100 mm
- Anode target angle: 15 degrees
- Anode heat storage capacity: 380 kHU (280 kJ)
- Maximum continuous heat dissipation: 300 W (with cooling)
- Maximum heat content of assembly: 2040 kHU (1510 kJ)

ROT 504 GS Air-Cooled ROTALIX Housing with Thermal Safety Switch

Automatic X-ray beam collimator with:
- Motor driven rectangular and circular collimation
- Power-up selftest
- Auto calibration at power-up
- Supports a maximum of 4 pre-filters programmable with SpectraBeam RF

SpectraBeam RF
SpectraBeam RF is an automatic X-ray beam spectrum optimization for EasyDiagnost Eleva. Depending on personal preference, regarding dose and image quality, the optimal filter can be pre-programmed in the Eleva settings for automatic selection.

Comprising:

- Automatic, remote-controlled spectral filter disk with 4 filter values
- 2 mm AL
- 1 mm AL + 0.1 mm Cu
- 1 mm AL + 0.2 mm Cu
- None

8	**DICOM InterOperability Package**	1

DICOM Interoperability Package
The Interoperability package provides the EasyDiagnost Eleva with a complete set of DICOM interoperability functions.

Comprising:
· DICOM Q/R & Multimodality View
· DICOM Export / Storage Commit
· DICOM Worklist Management
· MPPS
DICOM Query/Retrieve and Multimodality View

EasyDiagnost with Extended Digital Imaging supports DICOM Import (DICOM Store (SCP)), meaning that a DICOM mode can push images into the Extended Digital Imaging database.

The DICOM Q/R Multimodality View package adds the following capabilities:
· DICOM Query and Retrieve (both DICOM Q/R (SCU and SCP)), allowing the Extended Digital Imaging to Query / Retrieve images from another DICOM node and vice versa.
· Import and basic viewing functionality for DICOM images of non X-Ray modalities e.g. MRI, CT, etc.
All DICOM SOP-classes as described in the related DICOM Conformance Statement are supported.

DICOM Export/Storage Commit

The DICOM Export/Storage Commit package provides exporting capabilities for images from the EasyDiagnost with Extended Digital Imaging to other DICOM workspots, workstations and PACS systems.

The DICOM Export packages includes the following capabilities:
· DICOM Export (DICOM Store (SCU)), allowing the export of images in DICOM format
· DICOM Storage Commit (SCU)
All DICOM SOP-classes as described in the DICOM Conformance Statement of Extended Digital Imaging are supported.
DICOM Worklist Management

DICOM Worklist Management provides the connection to a RIS (Radiology Information System) in order to query and receive patient and examination request information (scheduled worklist).

With the DICOM Worklist Management packages EasyDiagnost Eleva with Digital Imaging or Extended Digital Imaging acts like a DICOM WLM (SCU) with these capabilities:
· Query RIS for current scheduled worklist automatically
· Query RIS for current scheduled worklist on demand
· Customize RIS Query
All DICOM SOP-classes as described in the DICOM Conformance Statement of Digital Imaging and Extended Digital Imaging are supported.

MPPS

A DICOM Modality Performed Procedure Step (MPPS) is an information object that describes the activities, conditions and results of an examination (imaging procedure) performed on a modality.The MPPS package is capable of reporting this information back to the connected RIS (Radiology Information System).

With the DICOM MPPS package the EasyDiagnost Eleva System supports DICOM MPPS as SCU with the following capabilities:
· Report status of the current examination back to RIS
· Provide RIS with examination information
The MPPS DICOM SOP-class as described in the DICOM Conformance Statement of Extended Digital Imaging is supported.

Comprising:
· DICOM Query and Retrieve software and license
· DICOM Multimodality Import and Viewing software and license
· DICOM Export software and license
· DICOM WLM software and license
· DICOM MPPS software and license

9 **Eleva Examination Control-A** 1

Eleva Examination Control

The Eleva Examination Control (including keyboard and mouse) is a 19" flat panel color TFT LCD display designed for touch input. It offers sturdy hardware buttons to modify most frequently adjusted exposure parameters.
It integrates all functions for patient administration, selection of acquisition and fluoroscopy parameters as well as all controls for operating the different subsystems in one user interface.

The Eleva Examination Control user interface offers facilities for:
Patient and examination administration

Preparation:

- Manual entry of patient data
- Import of RIS work list (DICOM) (optional)
- Display of user-defined help text for room preparation and procedure

Examination:

- Automatic adaptation of X-ray parameters depending on patient age, size and weight, as retrieved from RIS
- Automatic selection of system settings according to scheduled examination from RIS
- Manual selection of acquisition parameters, like:
- Auxiliary selection and indication
- Selection and display of exposure parameters
- Selection of parameters for special examinations like bolus chasing and full spine scan, etc. (optional)
- Selection of predefined acquisition programs
- Selection of different fluoroscopy flavors for pulsed fluoroscopy & Grid Controlled Fluoroscopy (optional)
- Selection of spectral filters for fluoroscopy and exposure (optional)
- Collimation on last image hold

Reporting:

- Printouts of dose report (optional)
- Support of DICOM MPPS (optional)
- Display of dose-information either calculated (Option: Dose Calculation) or measured (Option: Dose Measurement)

Comprising:

- Active Matrix TFT LCD display with anti-reflex touch front, hard coated top sheet
- Wide visible screen size: 19 inches diagonal
- Integrated hardware buttons for control of exposure parameters and system power on/off

10   **LCD 18" Control Room Monitor   1**

LCD 18" Control Room Monitor
High-quality 18-inch LCD monitor for medical applications. Its future oriented LCD technique delivers cristal-clear images, displayed absolutely flicker-free. The flat design requires little space in the control room and is as such universally usable.

Specification:
· monochrome display 18"
· native format 1280 x 1024 SXGA
· wide viewing angle
· high brightness with brightness control (500 cd/m2)
· internal selectable lookup table for grayscale transfer function
Comprising:
· 18 inch LCD monitor
· cable set
· pedestal

| 11 | **LCD 18" Examination Room Monitor** | 1 |

LCD 18" Examination Room Monitor
High-quality 18-inch LCD monitor for medical applications. For use in the examination room as live monitor. Its future oriented LCD technique delivers cristal-clear images, displayed absolutely flicker-free. The flat design requires little space in the examination room and is easy to maneuver due to its light weight.

Specification:
· monochrome display 18"
· native format 1280 x 1024 SXGA
· Progressive Display (flicker-free) mode
· wide viewing angle
· high brightness with brightness control (500 cd/m2)
· internal selectable lookup table for grayscale transfer function
· internal power supply (110 - 240 VAC)
· weight:approx. 10 kg (3,9 lbs)
Comprising:
· 18-inch LCD monitor
· cable set

| 12 | **Monitor Ceiling Suspension Height Adjustable** | 1 |

Height-Adjustable Monitor Ceiling Suspension
This device supports one or two monitors and allows the user a flexible position of the monitors in the the examination room depending on the application and the preferred working position. The counterbalanced arm holds the monitors at any desirable height and gives free space on the floor. The design allows easy movements and a one-hand use.

Specification:
The height-adjustable swivel arm has a:
· 430 cm (172 inch) longitudinal travel
· 340 degrees rotation
· 105 cm (42 inch) vertical range
· length of 120 cm (48 inch)
Comprising:
· monitor ceiling cart
· counterbalanced swivel arm
· monitor carriage

| 13 | **Table Flat Detector** | 1 |

Table Flat Detector for radiographic procedures. The AMPLIMAT measuring chamber ensures right exposure times and with the user-exchangeable oscillating grid image quality is improved by the reduction of scattered radiation.

Comprising:

1. Bucky device digital
2. XD-S workstation/package, including:
a. Digital detector
3. UNIQUE advanced image processing
4. DICOM PRINT

5. DICOM EXPORT
6. DICOM WLM (if DICOM Interoperability package was selected)
7. DICOM MPPS (if DICOM Interoperability package was selected)

1. Bucky device digital
Bucky device for digital radiographic procedures. The AMPLIMAT measuring chamber ensures
right exposure times and with the user-exchangeable oscillating grid, image quality is improved by
the reduction of scattered radiation.

Comprising:

- AMPLIMAT measuring chamber
- Oscillating grid, 36 l/cm (90 l/inch), ratio 12:1, FFD 100 cm (40 inch)

2. XD-S workstation/package including:
a.) Digital Flat Detector

- Detector with field size 43 x 43 cm (17 x 17 inch)
- Resolution 3000 x 3000 pixel
- Pixel pitch 0.143 mm
- Pixel depth 14 bits

3. UNIQUE advanced image processing
UNIQUE advanced multi-resolution image processing allows for optimal "Contrast Harmonization".
Details will be enhanced while the overall impression remains natural. If used in combination with
PCR UNIQUE, equal image impression results on both modalities.

4. DICOM PRINT (for DR images only)
DICOM Print interface for manual and automatic printing.
DICOM Print allows for manual and automatic printing directly from the Eleva Workspot. It enables
the user to transfer images to a networked DICOM imager with the choice of different printing
modes:

- Autoprint: automatic printing of images on predefined film layouts according to the
  examination
- Manual print: Manual image placement on predefined film layouts or image placement on
  free layout composing.

For further details, please refer to the system DICOM Conformance Statement.

Comprising:

- Software license

5. DICOM EXPORT
To send DR images to the system integrated View Forum or directly to the PACS
DICOM Storage SCU and Storage Commitment SCU
The DICOM Image Export feature provides the DICOM Storage service to send DR images to the
system integrated ViewForum or directly to PACS or any other DICOM destination in DICOM
format.

The Eleva Workspot supports DICOM Grayscale Display Standard. Calibration of the Eleva Workspot and the receiving
DICOM node will result in consistently same high image quality.
DICOM Image Export also includes the DICOM Storage Commitment service, allowing the Eleva Workspot to be informed by storage destination if images have been securely stored. This trigger is used by the Eleva Workspot to allow related images to be deleted locally.
For further details, please refer to the PCR Eleva DICOM Conformance Statement.

Comprising:

- Software license

6. DICOM WLM
If DICOM Interoperability package is selected, interface to Radiology Information System (RIS) is estabished.
Work list handling via a DICOM Basic Work List Management (BWLM) or FTP RIS interface
The DICOM & Classic RIS connection package allows the Eleva Workspot to automatically load the acquisition modality´s work list from a RIS server. The work list query can be performed 'broad' (generic) or specific (patient oriented), and both interactively (on operator request) and automatically (in background).
For further details on DICOM BWLM, please refer to the system DICOM Conformance Statement.

Comprising:

- DICOM Work List Management software license
- FTP RIS Interface software license

7. DICOM MPPS
If DICOM Interoperability package is selected, DICOM Modality Performed Procedure Step (MPPS) is included.
DICOM service for notifying the RIS server about start and end of performed procedure steps
The messages contain references to the originating work list items (patient and procedure data), a list of exported DICOM images and post-exposure data.
MPPS requires that the DICOM WLM feature is enabled.
For further details, please refer to the system DICOM Conformance Statement.

14   **BuckyDiagnost CS 2/4**   **1**
BuckyDiagnost CS 2 or CS4 with SRO 33 100 and Sensing

Bucky radiography and trauma work. The four-part telescopic column is counterbalanced and can be moved smoothly in all directions. With the ergonomically designed control grip single-handed use supports the workflow during radiographic procedures. All indicators and displays are clearly arranged and provide the current system status.
The unit moves smoothly and quiet on the ceiling, specific locking positions can be selected for preferred positions and help as well to work quickly and efficient.

Comprising:

- telescopic tube column, focus-ceiling distance of min. 86 cm (34.4 inch)
- high voltage cable, 2 x 18 m (default)

Operating range:

- longitudinal 3.55 m (140 inch)
- transverse 1.47 m (58 inch) for CS 2 or 3.19 m (125.6 inch) for CS 4
- vertical 1.50 m (59 inch)

The overtable tube assembly for the EasyDiagnost Eleva consists of a high-quality tube, tube housing and automatic collimator, providing a controlled x-ray beam for all standard over-table applications.

High quality SRO 33 100 Super ROTALIX tube for EasyDiagnost Eleva system.

Specification:

- tube voltage 40 - 150 kV
- nominal focal spot values 0.6 / 1.2 (IEC 336/93)
- anode diameter 90 mm
- anode target angle: 13 degrees
- anode heat storage capacity 300 kHU (220 kJ)
- max. continuous heat dissipation 250 W (with cooling)
- max. heat content of assembly 1700 kHU (1260 kJ)

ROT 360 air-cooled ROTALIX housing with thermal safety switch.

Automatic X-ray beam collimator with:

- motor driven rectangular shutters
- power-up selftest
- auto calibration at power-up
- Equipment for cassette size sensing (automatic collimation) and automatic beam limitation for radiographic exposures on EasyDiagnost Eleva's 2nd plane, respectively Bucky device or EasyLat as well as on the wall stand for improved workflow.

Sensing functionality detects the size of the inserted cassette and adjusts the shutters to the correct field size. Thus it avoids unnecessary radiation dose for the patient. For the user it means that instead of a time consuming manual adjustment he can immediately start the procedure.
In some countries this sensing is legally required for R/F systems.

Comprising:

- Sensing functionality in the automatic collimator
- Sensing cassette tray for Bucky device, EasyLat and/or wall stand, if selected

Digital vertical stand with motorized height setting. Enables wall stand applications for Chest and wall Bucky applications.

Comprising:

1. BuckyDiagnost VS digital
2. XD-S workstation/package, including:
a. Digital detector
3. UNIQUE advanced image processing
4. DICOM PRINT
5. DICOM EXPORT
6. DICOM WLM (if DICOM Interoperability package was selected)
7. DICOM MPPS (if DICOM Interoperability package was selected)

1. BuckyDiagnost VS digital
Digital vertical stand for chest and wall Bucky applications

- Motorized vertical stand with digital Bucky unit
- Vertical movement of detector unit 30 cm - 180 cm (12 inch – 72 inch) (centre of detector above floor)
- Motorized tilt movement of Bucky module
- Counterbalanced vertical carriage
- Automatic collimation
- AMPLIMAT measuring chamber 5 fields and user interface
- Bucky unit for digital detector with oscillating grid mechanism, changeable grid and parking slit for 2 grids and changeable grid
- Grid 36 lines / cm (90 lines / inch), ratio 8, SID 140 cm (56 inch) (default for SID between 110 - 180 cm)

2. XD-S workstation/package including Digital Flat Detector

- Detector with field size 43 x 43 cm (17 x 17 inch)
- Resolution 3000 x 3000 pixel
- Pixel pitch 0.143 mm
- Pixel depth 14 bits

Release 4.0 software, AWS and EEC-A will be delivered additionally if not existent

3. UNIQUE advanced image processing
UNIQUE advanced multi-resolution image processing allows for optimal "Contrast Harmonization". Details will be enhanced while the overall impression remains natural. If used in combination with PCR UNIQUE, equal image impression results on both modalities.

4. DICOM PRINT (for DR images only)
DICOM Print interface for manual and automatic printing.
DICOM Print allows for manual and automatic printing directly from the Eleva Workspot. It enables the user to transfer images to a networked DICOM imager with the choice of different printing modes:
Autoprint: automatic printing of images on predefined film layouts according to the examination
Manual print: Manual image placement on predefined film layouts or image placement on free layout composing.

For further details, please refer to the system DICOM Conformance Statement.

Comprising:

- Software license

5. DICOM EXPORT
To send DR images to the system integrated ViewForum or directly to the PACS
DICOM Storage SCU and Storage Commitment SCU
The DICOM Image Export feature provides the DICOM Storage service to send DR images to the system integrated ViewForum or directly to PACS or any other DICOM destination in DICOM format.
The Eleva Workspot supports DICOM Grayscale Display Standard. Calibration of the Eleva Workspot and the receiving
DICOM node will result in consistently same high image quality.
DICOM Image Export also includes the DICOM Storage Commitment service, allowing the Eleva Workspot to be informed by storage destination if images have been securely stored. This trigger is used by the Eleva workspot to allow related images to be deleted locally.
For further details, please refer to the PCR Eleva DICOM Conformance Statement.

Comprising:

- Software license

6. DICOM WLM
If DICOM Interoperability package is selected, interface to Radiology Information System (RIS) is established.
Work list handling via a DICOM Basic Work List Management (BWLM) or FTP RIS interface
The DICOM & Classic RIS connection package allows the Eleva Workspot to automatically load the acquisition modality's work list from a RIS server. The work list query can be performed 'broad' (generic) or specific (patient oriented), and both interactively (on operator request) and automatically (in background).
For further details on DICOM BWLM, please refer to the system DICOM Conformance Statement.

Comprising:

- DICOM Work List Management software license
- FTP RIS Interface software license

7. DICOM MPPS
If DICOM Interoperability package is selected, DICOM Modality Performed Procedure Step (MPPS) is included.
DICOM service for notifying the RIS server about start and end of performed procedure steps
Messages contain references to the originating work list items (patient and procedure data), a list of exported DICOM images and post exposure data.
MPPS requires that the DICOM WLM feature is enabled.
For further details, please refer to the system DICOM Conformance Statement.

Compatible with:

- Holder for infant position (BABIX)
- BWS floor fixing device

16   **Tracking for BuckyDiagnost**   **1**
                CS 2/4

Tracking is a system option whereas the tube follows the image receptor in the Bucky wall stand in vertical and tilted position. It supports a smooth workflow and enables the user to maximize patient interaction.

Comprising:

- Adjustable SID
- Motorized drive of vertical tube movement
- Electronic motor control board with software
- Height sensor in Bucky wall stand

17   **Clinical QC**   **1**

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

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

Comprising:

- Software license

Compatible with:

- EasyDiagnost Eleva 3.0

18   **PAIR OF SHOULDER RESTS**   **1**

SHOULDER SUPPORTS/ Pair of shoulder rests

19   **Ankle Clamps**   **1**

Ankle clamps For patients in a.p. or p.a. position in connection with shoulder rests. Compatible with: diagnostic tables with footrest provided with 30 mm mounting hole accessory facilities Successor of 9890 010 03601 due to the modification of the bolt.

20   **Rotatable stool for footrest**   **1**

Rotatable stool to be mounted on the footrest.

21   **Side bar**   **1**

A rod to mount at the side of the table 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

22   **Lateral Cassette Holder**   **1**

Accessory with quick set lever stop.
Movable in lateral direction of the table.
For cassettes grid cassettes or cassette and grid
up to 43 cm.

Compatible with:

- diagnostic tables with flat section rail.

23   **Stretch grip f. wall stands**   **1**

To keep the patient's arm overhead or beside the Bucky unit
during exposure.
To be insert at the Bucky unit at right or left side.

Comprising:

- Arm rest, U- shaped for different grip height, tiltable from −90° to +90° for height and side
  position
- wall holder for parking

Compatible with:

- BuckyDiagnost VS (advanced package)
- BuckyDiagnost VS with digital detector and DigitalDiagnost VM

24   **Set of CS Ceiling Rails**   **1**

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.

25   **Barcode Reader**   **1**

For error-free entering of patient data into the work list via barcodes and to query patients by accession number.

26   **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.

27   **Airfare to Cleveland for**   **1**
              Biomed Training

Includes one (1) participant's airfare from North American customer location to the Cleveland Training Center (CTC) in Cleveland, Ohio. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Expires one (1) year from the earlier of equipment delivery date or purchase date.

28   **Food Transpt Lodging for**   **18**
              Cleveland Biomed Training

Includes one (1) day of modest lodging, ground transportation, and meal expenses in Cleveland, Ohio for one (1) attendee. All other expenses will be the responsibility of the attendee. Details are provided during the scheduling process. Note: Cancellation/rescheduling policy strictly enforced. Although this part is only for one day, it is sold in multiple quantities to account for entire length of course. Expires one (1) year from the earlier of equipment delivery date or purchase date.

29   **XD3848C Bio ELEVA-**   **1**
              EASY/MULTI SYS.R2 CTC14+

Class Length: 14 days

Delivery Method: Lecture/Lab

Location: Cleveland

Accreditation: N/A

DESCRIPTION:

The Biomed is trained to a technical level, which will enable him to do the setting to work, calibration, and corrective maintenance on the Windows NT and Windows XP MultiDiagnost Eleva II/TV, and the EasyDiagnost Eleva systems according to the service philosophy.

Prior to attending the course, the student must take XD9016, URF Eleva Basics eLearning and XD9026- URF Eleva Operating eLearning. Both XD9016 & XD9026 are part of this course and there will be no extra cost to obtain these classes.

Description of XD9016:

Class Length: 8 hours
Delivery Method: CBT
This CBT is intended for those who have finished their basic training as X-ray CS field engineer. After some months of field experience this course will be the entrance

to the Eleva Platform systems. The CBT provides fundamental information on fluoroscopy and imaging aspects belonging to the Eleva systems as preparatory training for the course XD3853 URF Eleva Platform.

Description of XD9026:
Class Length: 3 hours
Delivery Method: CBT
This CBT training will train the Field Service Engineer to a basic level of understanding the Eleva products structure, the Eleva workflow and how to Operate the Eleva Examination console. He is also trained on the basics of operating a ViewForum connected to an Eleva system.

PREREQUISITES:
Completion the following courses:

XD3002 - X-ray Systems, Basic Part 2 (bundled with: XD9015-X-ray Systems, Basic Part1) or other basic X-ray course, or prior X-ray modality service training/experience

AND-

1 of the following:

XD9016 – URF Eleva Basics
AND-

XD9026- URF Eleva Operating

Additional courses that are recommended:

XD3671(C) - Bucky Diagnost Part 2 (bundled with XD9022-Bucky Part1)

CS9027 - Dicom
CS9020 - Basic Networking

COURSE AIMS:
During this course the engineer will be provided with information on:

• Configuration and product structure of the URF Eleva Systems.

• (Pre) installation and setting to work

• Safety aspects

• Simplified Block and System diagrams

• Corrective Maintenance (CM)

• mShield (firewall)

- Remote Services (RSN)

The Engineer will learn how to:

- Install the system with the help of the SMI

- Work with the Field Service Framework service tool.

- Work with EVA service tool and perform basic EPX parameter adjustments.

- Set up the Velara generator using the Agent service tool and/or FSF.

- Perform mechanical and imaging adjustments

- Perform corrective maintenance at the FRU-level

- Configure and perform basic operation of the ViewForum Workstation

- Handle service software programs

- Connect the system to a local hospital network (RIS, printer and PACS)

EasyDiagnost Eleva DRF

Course Number: XD9032
Class Length: 4 hours
Delivery Method: CBT
Modality: URF and RAD
Location: At home
Accreditation: None

DESCRIPTION:
This CBT training will train the experienced URF Eleva Field Service Engineer, who has
already experience with the Essenta DR, to a level of technical knowledge and understanding,
which enables him to succesfully work on the EasyDiagnost Eleva DRF. This module covers the
radiology part of the EasyDiagnost Eleva DRF.

COURSE-WARE:
On line

All course materials are on CSIP level 1.

PREREQUISITES:
Engineers attending this course must have:
* Mechanic skills
* Computer skills
* Knowledge of URF system architecture
* Operationg experience with measuring equipment
* Knowledge of URF Imaging subsystems
* Knowledge of Dicom/networking
* Knowledge of the Trixell 4600 digital detector
* Knowledge of the Application workspot

Prior attendance to XD3854C, XD3853 or XD3848 URF Eleva Platform and the:
* XD9013 PCR Basic
* XD3674 Essenta DR

The student has to have field experience on URF Eleva systems and radiology systems.

COURSE AIMS:
During this course the engineer will be provided with the theoretical knowledge of:
* the major system components
* the connection between the EasyDiagnost Eleva and the DR part
* the workflow
* service
* corrective maintenance
* upgrading the EasyDiagnost with the DR option

He will learn how to:
* identify the components of the EasyDiagnost Eleva DRF system
* describe the workflow of an EasyDiagnost Eleva DRF system
* describe how the EasyDiagnost and the DR part are connected
* which tools are used to service the EasyDiagnost Eleva DRF
* where to get information about system status during fault finding

* the upgrade possibilities

KEY TOPICS:
* system survey
* workflow
* operating
* how the EasyDiagnost Eleva and the DR part are connected
* how to service the EasyDiagnost Eleva DRF
* corrective maintenance
* upgrading the EasyDiagnost Eleva with the DR option

XD9019 Bio EasyDiagEleR2   **1**
                                eLearn
EasyDiagnost Eleva, R2 Diff

Course Number: XD9019
Learning Time: 3 hours
Delivery Method: Online
Modality: Universal R/F
Location: At home
Accreditation: None
Audience: CS engineers

DESCRIPTION:
This training will train the experienced Eleva Field Service Engineer to a level of technical
knowledge and understanding, which enables him to succesfully work on the EasyDiagnost Eleva
 Release 2. This module covers the differences between the releases and explains the new
features.

COURSE-WARE:
Online, CSIP level 1

PREREQUISITES:
Prior attendance to Eleva courses XD3853, XD3854, XD3855 or XD3848

The student should have field experience on Eleva systems, especially with FSF and EVA.

COURSE AIMS:
During this course the engineer will be provided with knowledge of:
- the changes in FSF
- the changes in the EVA tool
- The new features in the Sysco

He will learn how to:
- use FSF to configure, adjust and troubleshoot the Velara generator
- use FSF to switch between application and service EPX database
- use FSF to configure the virus scanner, access service documentation, transfer data to USB stick, etc.
- use the EVA tool and EEC to perform RIS mapping new style
- work with the new EVA structure and use the online help functionality

KEY TOPICS:
- Configure, adjust and troubleshoot Velara generator
- EPX database changes
- EVA changes
- Use of USB stick for data transfer

This course is available on the Philips Learning Center (PLC) website at
http://theonlinelearningcenter.com

All of the Academy e-learning courses are located on this site in the Course Catalog under the Academy folder and Modality sub-folder.

** FIRST TIME USER PHILIPS EMPLOYEE **
You have to register first.
North America students use your employee number all other regions please contact your Country Training Coordinator, for your login information.
* After log in *
When your Home page appears, click on the following:
1. 'Course Catalog' link located in the menu bar at the top of the screen.
2. Find and expand the 'Academy' section
3. Select the modality folder that this course applies to.
3. Select the course.
4. Click the 'Get it Now' button.
5. When the Learning Activities page appears, click on the link for this course.
6. You will also need to select the on-line test for this course, follow the same steps above for the on-line test. The test will have the same course code with a "T" at the end. Example: CS9020T

Prerequisites: None

Accreditation: None.
Location: eLearning.
Class Length: 1 day.
Materials: Online.

System Admin

Approx. cost to remove equipment included.