

1      \*\*      **DD 3.1 Catalyst**

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DigitalDiagnost is a premium direct digital radiography system with flat detector technology, based on modular components to allow for customization for all radiographic applications and workload requirements. It benefits from years of developmental experience and suggestions from satisfied customers all over the world who have had conventional and digital Philips Bucky systems.

The system combines all the advantages of a digital radiography unit with the latest Philips advanced features for easy and ergonomic workflow. Please note that depending on the particular room setup chosen, some options might not be available or already be included in the setup.

Main benefits at a glance

- Flexible component-based geometry to fit specific needs
- High efficiency and high patient throughput due to powerful automated features
- Uncompromising ergonomics due to complete system integration and special design
- Integrated one, two or three Cesium Iodide (CsI) digital flat panel detector(s), depending on setup
- Ample detector area for full diagnostic information even with large patients processing for comparable image impression
- Dose reduction due to high detector quantum efficiency
- Various generators and tubes, depending on setup
- Ceiling suspension with handy handle, control buttons, and release brake, as well as convenient color-coding of movements
- Wide 16.5 cm (6.5") LCD display on tube head for clear information and statuses
- Integrated centering laser in the tube head for easy positioning
- Very high image quality due to state-of-the-art detector technology and exclusive UNIQUE image processing
- Decrease in the number of repeat exposures due to the reduction of overexposed and underexposed images
- Total radiation dose monitoring by an integrated area dose calculator
- Customizable Eleva touch screen user interface
- Flexibility for integrating into hospital network infrastructure

The innovative Eleva workspot of DigitalDiagnost lets you experience simplicity like never before. Designed with input from customers, it provides a clear and intuitive touch screen user interface. 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 Eleva concept allows concentrating on patients instead of on the system. The touch screen 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. In addition, the Eleva alternative workflow

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concept provides the flexibility to adapt to particular situations and change the planned examination protocol without readjusting any exposure settings.

Thanks to Philips outstanding UNIQUE (UNified Image Quality Enhancement) advanced multi-resolution image processing, images are always displayed fully processed. UNIQUE provides an optimal contrast harmonization with enhanced details, while the overall impression remains natural. When used in combination with Philips integrated CR, it provides a comparable image impression for all CR and DR images.

The ceiling suspension carrying the X-ray tube allows the freedom for a wide range of longitudinal and transverse movements in the room, allowing performing table and vertical stand examinations, as well as lateral projections and free exposures using the wireless portable detector 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, automatic tube tracking, detector alignment and move to position functions, provide high projection flexibility 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 above the table, and to go down to the floor for lower extremity work.

DigitalDiagnost provides built-in privacy according to HIPAA recommendations, and security and interoperability standards. It integrates seamlessly into the hospital network and provides embedded antivirus software as well as restricted access to prevent the system from unauthorized use. It supports connection to a Radiology Information System (RIS), to DICOM-compatible diagnostic units and archives and to DICOM imagers, according to the relevant IHE profiles.

## Specifications

- BuckyDiagnost CS III Ceiling Suspension
    - Four-part aluminium 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"): 2.65 m to 3.20 m (8' 8.3" to 10' 5.9")
    - Minimum ceiling source distance: 87.1 cm (34.3")
    - Possible room height adjustment: 37.5 cm (14.8")
    - Lowest tube position: 30 cm (11.8") measured from center of beam to the floor
    - Length of rails: base rails 4.3 m (14' 1.3"), optional rails extension 2.7 m (8' 10.3")
    - Longitudinal travel: 3.44 m (11' 3.4"), 6.14 m (20' 1.7") with rails extension option
    - Transverse travel: 1.50 m (4' 11") with short transverse rails, 3.22 m (10' 6.7") with long transverse rails
    - Vertical travel: 1.65 m (5' 5.2")
    - 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") LCD information display and control buttons
  - Collimator
    - Motorized automatic collimation, manual overrule possible, with light field indicator
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- 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
- Eleva workspot computer
  - Processor: Intel® Core2 Duo SP 9300 (2.26 GHz, 6 MB L2 Cache) or better
  - Hard disk: 250 GB SATA, 4 GB used for operating system and application software
  - Image storage: 200 GB for typically 4000 images
  - 4 GB memory
  - CD drive
  - Ethernet 10/100/1000 Base-T Gigabit
  - Geometry interface
  - Detector interface
  - Integrated generator control
  - Memory stick support for quality control
  - Keyboard and mouse

#### Comprising

- BuckyDiagnost CS III Ceiling suspension
  - 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 marker for preferred source-image distance
- Eleva workspot
  - Eleva workspot computer, keyboard and mouse, cables
  - Eleva application and examination database software and licenses
  - Windows XP Embedded system software and licenses
  - UNIQUE advanced multi-resolution image processing
  - Dynamic reconstruction image processing software
  - Easy Workflow
  - Shutter and Image Verification tool
  - Antivirus software and license
  - Instruction for use
  - Quick reference guide
  - User documentation

#### **CS Base Rails 4,3m (14' 1.3")**

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

Comprising:

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- 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

### Clinical Education Program for Radiography Systems

Handover OnSite Education: Philips Education Specialists will provide twenty-eight (28) hours of education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. Students should attend all 28 hours, and must include any OffSite education attendees if applicable. 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 guidelines for more information. 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.

**Recommendations:** In order to enhance customer satisfaction with image quality over the first year, we highly recommend that **part# 989801292145, XR Add OnSite Clin Educ 16h** is purchased. This training will assist the customer in maximizing the unique image quality pre-sets to suit their facilities needs. Clinical Education highly suggests the image quality visit occur two to four weeks post initial handover.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref # 522-100614

Cabinet Box

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#### Digital VS vertical stand with fixed detector

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Philips height-adjustable VS vertical stand 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 even under-table examinations using a trolley.

Main benefits at a glance

- Vertical stand mounted on the floor, optimal for chest X-ray and all wall Bucky applications
- Motorized height adjustment from 30 to 180 cm (11.8" to 5' 11") 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 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
- 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
- Wireless remote control providing all commands of the side user interfaces
- Wide size 43 x 43 cm (17 x 17") integrated digital flat detector
- Five-field automatic exposure control chamber for optimal image quality and dose, and positioning flexibility
- Automatic tube height adjustment to detector height (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
- Optional display on vertical stand column for patient data in the examination room
- Removable oscillating grid for optimal image quality and dose
- Convenient storage for two grids within the detector unit for immediate and safe storage

The motorized height adjustment from 30 to 180 cm (11.8" to 5' 11") measured at center of detector above the floor, gives a total lift of 150 cm (4' 11.1") to adjust to a comfortable and safe working height with a choice of two different speeds.

The wide size 43 x 43 cm (17 x 17") integrated 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.

An integrated five-field automatic exposure control chamber ensures optimum image quality at the lowest possible dose even for difficult projections, and provides positioning flexibility for various examinations without moving the patient. The removable oscillating grid can be stored conveniently and safely directly in the detector unit.

## Specifications

- VS vertical stand
    - Counterbalanced rugged column for motorized and manual vertical movement of the detector
    - Vertical movement range: 30 to 180 cm (11.8" to 5' 11"), measured at center of detector
    - Installation: floor and wall attachment, or floor only (optional)
    - Detector unit: 59.6 x 57.5 cm (23.5 x 22.6")
    - Optional tilting: -20° to +90° motorized
    - Automatic exposure control (AEC): 5 AEC measuring fields
    - Operating: two user interfaces (left and right) and wireless remote control
    - Removable oscillating grid 40/8/140: 40 lines/cm (100 lines/inch), ratio 8, focus 140 cm (56") for use with source-image distance from 110 to 180 cm (44" to 71")
    - Grid storage: for up to two grids within the detector unit
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- Detector
  - Wide size 43 x 43 cm (17 x 17") integrated digital flat detector with Cesium Iodide (CsI) technology
  - Active detector area 42.0 x 42.5 cm (16.5 x 16.7")
  - Resolution 8.2 megapixel (2840 x 2874 pixels)
  - Pixel pitch 0.148 mm
  - Pixel depth 16 bits
  - Image resolution: up to 3.4 line pairs per mm

#### Comprising

- Digital BuckyDiagnost VS vertical stand
- Digital flat detector 43 x 43 cm (17 x 17")
- Default oscillating grid 40/8/140: 40 lines/cm (100 lines/inch), ratio 8, focus 140 cm (56"). A different default grid can be chosen in order questionnaire. Additional grids are available in accessories.
- Software licenses
- Documentation

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### **Three-phase 80 kW X-ray generator**

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Generator featuring modern architecture based on a modular design using high performance components to enable a customer specific solution.

#### Main benefits at a glance

- Modern architecture based on a modular design using high performance components
- Tube overload protection
- Automatic mains voltage compensation
- Automatic Exposure Control (AEC)
- Fully compatible with VarioFocus (optional)
- Small footprint

The tube overload protection monitors temperature conditions in order to protect tube and housing parts from being damaged or destroyed by overstress. The automatic exposure control sets the exposure time according to exposure voltage and object characteristics in order to automatically obtain the correct exposure.

#### Specifications

- Computer controlled converter X-ray generator
  - Converter generator generates high voltage equivalent to DC voltage
  - Nominal power (IEC): 80 kW
  - Power: 80 kW
  - Three phases, 400 - 480 VAC, 50/60 Hz
  - Low or dual speed rotor control, depending on tube
  - Max voltage: 150 kV
  - Max current (at 80 kV): 1000 mA
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- mAs product: 0.5 to 850 mAs
- Exposure time: 1 ms to s
- Maximum mains resistance at 400V: 0.2 Ohm
- Maximum mains current at 400V: 160 A

#### Comprising

- Generator 80 kW in cabinet

#### Compatible with

- DigitalDiagnost 3.0 and above
- VarioFocus option
- Philips tube SRO 33100

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### **Philips dual-focal high power SRO 33100 X-ray tube**

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This Philips dual-focal rotating anode high power X-ray tube can be used for all general radiography applications. It is particularly adapted for examinations requiring high power. The anode target angle allows a 43 x 43 cm (17 x 17") X-ray field at minimum source-image distance of 100 cm (39.4").

#### Main benefits at a glance

- All radiography applications including bariatric
- High load capacity
- Fast speed-up (1 second)
- Fully compatible with Philips VarioFocus option
- Superimposed dual focal spots
- Fast rotating anode (up to 10,800 revolutions per minute)
- Housing with 90° horn angle position with free air convection cooling

To increase continuous power and minimize downtime for more demanding applications, the tube assembly can be equipped with an additional blower.

#### Specifications

- Two focal spots: 0.6 and 1.2
  - Maximum power: 33 kW with focal spot 0.6, 100 kW with focal spot 1.2
  - Anode angle: 13°
  - Maximum tube voltage: 150 kV
  - Anode heat storage capacity: 220 kJ (300 kHU)
  - Assembly heat capacity: 1,247 kJ (1,700 kHU)
  - Minimum anode speed: between 8,000 and 10,000 revolutions per minute
  - Build in filter 2 mm Al (5/64")
  - Total filtration minimum: 2.6 mm Al (105/1024")
  - Double tube overload protection
  - Total weight: 23 kg
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- Philips X- ray tube SRO 33100
- X-ray housing ROT 360
- Standard clamp fitting
- Two thermal safety switches (tube housing temperature)

Uninterruptible Power Supply (UPS) for the Eleva workspot computer and monitor. The device provides emergency power to the Eleva workspot in case of electrical network power failure, allowing to bridge time to safely store images and complete the last tasks. It provides instantaneous protection from input power interruptions by means of an integrated battery and electronic circuitry, allowing to continue working for approximately 60 minutes.

- Allows using the Eleva workspot for approximately 60 minutes after main power interruption
- Typical charging time: approximately 4 hours
- Typical heat emission: 4 W (5 W max) in standby, 86 W (99 W max) in operation
- Dimensions: depth 48.3 cm (19"), width 21 cm (8.3"), height 43.2 cm (17")
- Weight: 25 kg (55 lbs)

- UPS device including holder for vertical positioning, power cable

**Prerequisite:** BuckyDiagnost VS (advanced package)  
Bucky unit motorized tilt able from - 20° via vertical (0°) position to horizontal (+90°) position.  
"Move to position" function: motorized movements of image receptor (dead man) or automatically (move to next position -20° / 0° / +90°).  
Bucky unit vertical: movement range 30 cm - 180 cm (centre of cassette above floor)  
Bucky unit horizontal: movement range 55 cm - 205 cm (front plate above floor)  
User interface on both sides of image receptor housing for motorized movements, collimation and 5- field measuring chamber.

- Motorized vertically movement for BuckyDiagnost VS (advanced package)
- Spacer for BuckyDiagnost VS (advanced package)
- BABIX holder for VS
- Stretch grip for BuckyDiagnost VS (advanced package)

7	**	Adapt. Transf. 415-480 V	1
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Comprising:

- three-phase transformer for mains supply voltage adaptation of 415/440/460/480 V to 400 V and for 380/400 V for mains supply without N (neutral) to be built into the base of generator.

Compatible with:

- Generator OPTIMS 50, 1 tube
- second tube connection
- extension to 65 kW
- extension to 80 kW

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**Extension for the longitudinal rails of CS**

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This mechanical extension of the longitudinal rails allows extending the longitudinal travel of the ceiling suspension. In combination with the long transverse rails (see questionnaire), this longitudinal rail extension makes possible to cover a large area of the room.

Specifications

- Extension size: 2.7 m (106.3")
- Maximal longitudinal travel with extension: approximately 6 m (19' 8.2")

Comprising

- Set of ceiling suspension extension rails
- Mounting and connection hardware

Compatible with

- BuckyDiagnost ceiling suspension CS2/4
- BuckyDiagnost ceiling suspension CSIII (only available for DigitalDiagnost)

Remark

If necessary, it is also possible to adapt the rails extension length to the exact room requirement by requesting the option "Rails separation CS".

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**Eleva Examination Control Advanced**

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The Eleva examination Control Advanced combines brilliant image display and excellent ergonomics.

Main benefits at a glance

- Takes full advantage of Eleva advanced user interface and ease of use
  - Optimizes space in the control room, workflow and efficiency
  - Touch technology compatible with rubber gloves
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- Wide screen size
- Wide viewing angle
- Calibrated according to DICOM GSDF standard for better image fidelity
- Qualified for second reviewing
- Clear to read & easy to clean glass surface

Its smart design combines two consoles in one, allowing space saving in the control room and a more efficient workflow: the flat 19" LCD color display provides touch screen technology for intuitive and efficient use and the sturdy hardware buttons on the frame offer integrated control of the generator to modify the most frequently adjusted exposure parameters.

For more convenience during particular procedures like trauma, the microwave touch screen technology allows touch use also with rubber gloves. The glass plate in front of the screen ensures clear display and ease of cleaning.

#### Specifications

- 19" flat panel color TFT LCD display
- Resolution 1280 x 1024 pixels
- Luminance 220 cd/m<sup>2</sup>
- Hardware buttons commands: on/off, default examination, help, adjust kV, adjust mA, adjust mS, last used values

#### Comprising

- Active Matrix TFT LCD display with anti-reflex touch front, hard coated top sheet
- Integrated hardware buttons for control of exposure parameters
- Integrated hardware buttons for system power on/off and help
- Software licenses
- User documentation

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#### **DICOM Package**

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This package provides all DICOM features available with PCR Eleva: DICOM Print, DICOM Image Export, RIS connection, MPPS.

For full description, please refer to the mentioned features.

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

#### Compatible with:

- PCR Eleva software release 1.0 and above

#### Comprising:

#### DICOM WLM & Classic RIS

Interface to Radiology Information System (RIS).

Worklist 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 worklist from a RIS server. The worklist 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.

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

Comprising:

- DICOM Worklist Management software license
- FTP RIS Interface software license

Compatible with:

- PCR Eleva software release 1.0 and above
- Essenta DR release 1.0 and above

#### DICOM MPPS

DICOM Modality Performed Procedure Step (MPPS)

DICOM service for notifying the RIS server about start and end of performed procedure steps.

The messages contain references to the originating worklist 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.

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

Comprising:

- Software license

Compatible with:

- PCR Eleva software release 1.0 and above
- Essenta DR release 1.0 and above

**Generator Data will not be reported automatically for Essenta DR and PCR Eleva!**

#### DICOM Image Export

DICOM Storage and DICOM Storage Commitment

The DICOM Image Export feature provides the DICOM Storage service to send images to PACS or any other DICOM destination in DICOM format.

The Eleva workspot supports DICOM Greyscale Display Standard. Calibration of 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 system DICOM Conformance Statement.

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

Comprising:

- Software license

Compatible with:

- PCR Eleva software release 1.0 and above
- Essenta DR release 1.0 and above

#### DICOM Print

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.

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

Comprising:

- Software license

Compatible with:

- PCR Eleva software release 1.0 and above
- Essenta DR release 1.0 and above
- For compatible printers see product info

Technical Data:

- Only printing via DICOM protocol is possible.

Comprising:

- 2 CS rails
  - fixing parts
  - connectors
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## OPTIONS

SELECTION OF ANY OPTION WILL INCREASE THE CONTRACT PRICE BY THE AMOUNT SHOWN IN THE PRICE COLUMN. OPTIONAL EQUIPMENT PRICING VALID ONLY IF PURCHASED IN CONJUNCTION WITH EQUIPMENT QUOTED.

1	**	<b>Sharing license set for wireless portable detector</b>	1
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Philips wireless portable detector sharing is part of the Eleva platform and defines a new dimension of flexibility, freedom and costs optimization within the radiography department.

Main benefits at a glance

- Share a wireless portable detector between Philips systems according to daily needs
- Increase room flexibility with a fixed expenditure
- Make use of the wireless portable detector advantages with several systems at reduced investment costs
- Adapt to particular situations where free exposure is required and benefit from DR image quality, speed and reduced dose
- Full integration of the wireless portable detector in the room
- Easy and quick wireless portable detector attachment procedure
- Can be also used as backup solution to provide continuous system uptime

Based on the many advantages of the wireless technology together with the Eleva concept, the wireless portable detector sharing license brings even more flexibility and workflow customization in the department while optimizing costs. Instead of having a dedicated wireless portable detector per system, this feature allows sharing a wireless portable detector between several compatible Philips X-ray systems, resulting in better equipment usage depending on daily system needs, as well as increased investment efficiency.

Simply grab the wireless portable detector from a Philips system, walk to another compatible Philips system in the department having the wireless portable detector sharing license, perform the easy and quick attachment procedure, and the wireless portable detector is then ready to be used on this system.

Not only a wireless portable detector can be shared between several DigitalDiagnost 3 systems having the sharing option, but also with compatible Philips EasyDiagnost Eleva and MobileDiagnost wDR systems with the same option.

To protect a wireless portable detector investment, Philips is offering an optional dedicated accident protection program. Especially for frequent usage and when sharing the detector between rooms or systems, it prevents hospitals from high replacement costs in case the wireless portable detector is damaged from an accidental drop.

Comprising

- Wall-mounted docking station
  - Backup cable
  - Wireless portable detector sharing software license
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## OPTIONS

Compatible with

- Installation on DigitalDiagnost release 3.x and above
- Sharing a wireless portable detector with DigitalDiagnost 3.x and above, EasyDiagnost 5.0 and above and MobileDiagnost wDR 1.x and above, featuring the wireless portable detector sharing option

**2      \*\*      Airfare to Cleveland for Biomed Training      1**

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.

**3      \*\*      Food Transpt Lodging for Cleveland Biomed Training      5**

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.

**4      \*\*      XD3674 ESSENTADR5D      1**  
**Essenta DR**

Course Number: XD3674  
Class Length: 4.5 days (excludes Saturdays, Sundays, and Philips holidays)  
Delivery Method: ILT  
Modality: RAD  
Location: Cleveland, USA  
Accreditation: None  
Audience: FSE, Dealers and Agents

**DESCRIPTION:**

This course trains the CS engineer to a technical and applicational level which will enable him to perform full Installation, PM and CM according to the service philosophy.

**COURSE-WARE:**

Student manual  
All course materials are on CSIP level 1.

**PREREQUISITES:**

- \* XD3671 or XD9022
- \* CS9020 and CS9021 or CS9027

**COURSE AIMS:**

After attending this course, the engineer will have knowledge of:

- \* Configurations and product structure
  - \* Technical aspects of applications (hardware and workstation software)
  - \* Installation (theoretically and partly practically)
  - \* Safety aspects
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## OPTIONS

He will be capable of:

- \* Operating the system
- \* Installation
- \* Calibrating/Programming
- \* Handling test software
- \* Making performance tests
- \* Implementing new releases
- \* Performing PM and CM

KEY TOPICS:

- \* Operating & application
  - \* System installation
  - \* Installation & Programming
  - \* Troubleshooting
-