

VAMC MINNEAPOLIS, MN
PO# 618-B39046

Line #	Description	Qty
1	Digital Diagnost	1

DigitalDiagnost

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
- Reduction in the number of repeat exposures due to the elimination 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 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
 - 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: 108 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 4,3 m (14' 1.3")

Set of rails for BuckyDiagnost CS 2/4

Fixed at the ceiling for:

- Longitudinal carriages of BuckyDiagnost CS 2/4,
- Monitor ceiling suspension
- Auxiliary ceiling suspension; length: 4,3 m

Comprising:

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

Eleva Exam. Control Advanced

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
- 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/m²
- 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
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- Integrated hardware buttons for control of exposure parameters
- Integrated hardware buttons for system power on/off and help
- Software licenses
- User documentation

CABINET BOX

Pre-deliverable mounting material.

XR Handover OnSite Educ 28h

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.

2

Digital VM vertical stand with fixed detector

1

With DigitalDiagnost VM, Philips redefines the benchmark for standard rooms with a highly flexible configuration. An outstanding concept featuring a unique movable vertical stand and a single-side suspended table, easy handling and excellent ergonomics, it opens new perspectives for a single-detector room like never before, without application limitations.

This versatile system is designed for environments with a medium to high patient load. It features a revolutionary moveable multipurpose vertical stand with an integrated detector and a single side suspended table or trolley. However, with the VM concept, single-detector is no longer synonymous with being attached to a single examination place in the room, or compromising on application possibilities.

Main benefits at a glance

- Vertical stand sliding on a floor-mounted rail, optimal for all general X-ray examinations like chest, wall Bucky applications, table work, cross table laterals, and angulated projections
- Optional single-side suspended, motorized height-adjustable TH-S table, with wide floating tabletop, especially designed to use in combination with the VM vertical stand
- Vertical stand column sliding on a rail along the table for easy placement in various positions at the table or away from the table
- Swiveling detector arm and detector tilting on both horizontal and vertical axes, to allow exact positioning even for difficult projections
- Motorized vertical stand height adjustment, with two different speeds plus manual operation for precise positioning
- Optional motorization of the column on the rail for more automation
- 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 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
- 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 especially on the table
- Automatic tube height adjustment to detector or table height (tracking)
- Automatic collimation for X-ray beam limitation to digital flat detector, according to pre-programmed examination parameters
- 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 system allows the performance a variety of table examinations like pelvis or abdomen. By positioning the detector vertically alongside the table, it also enables easy lateral projections without moving the patient. Moving the vertical stand to the end of the table, it becomes a digital chest unit. Lowering the detector in horizontal or angulated position, it turns into an ideal extremity examination device.

In vertical position, the motorized height adjustment from 35 to 185 cm (13.8" to 6' 08") 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 conveniently and safely stored directly in the detector unit.

Not only can the vertical stand be put in numerous positions to achieve the required projection, but the detector is always locked fixed and precise, greatly simplifying patient positioning work for the technologist, especially for lateral and angulated exposures. In combination with the five-field automatic exposure control chamber, this flexibility results in optimal image quality and dose even for difficult projections like axial hips.

Specifications

- Counterbalanced rugged column for motorized and manual movements of the detector
 - Vertical movement range: 35 to 185 cm (13.8" to 6' 08"), measured at center of detector
 - Horizontal movement range: motorized 3.475 m (11' 4.8"), non-motorized 3.71 m (12' 2.1"), with extension rails motorized or non-motorized 5.5 m (18' 0.5")
 - Installation: floor attachment in combination with wall or ceiling attachment
 - Multipurpose detector arm: swiveling range from 0° to 90° (right or left orientated execution), lock-in positions manual or every 15°
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- Angle of tilt of detector unit: -20° to +90° on horizontal axis (motorized tilting), +45° to -23° on vertical axis (manual tilting)
- Detector unit size: 59.6x57.5 cm (23.5"x22.6")
- Wide size 43 x 43 cm (17 x 17") integrated digital flat detector with Cesium Iodide (CsI) technology, minimum resolution 2840 x 2874 pixels, maximum pixel pitch 0.148 mm, minimum pixel depth 14 bits
- 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

Comprising

- DigitalDiagnost VM vertical stand and sliding rail
- 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

3

Single Sided Table TH-S

1

Single sided X-ray transparent height adjustable table for DigitalDiagnost VM

Specification:

- Single side suspended architecture
- Height adjustable: 54 cm to 90 cm
- Maximum patient load: 225 kg
- Dimension of tabletop: 260 cm by 75 cm flat surface
- Floatable tabletop with movement range: longitudinal: +/- 20 cm, transversal: +/- 20 cm
- Full x-ray transparent area of tabletop:
 - 170 cm over full width of 75 cm plus additional 40 cm length with restricted width of 49 cm
- Thickness of tabletop: 54 mm
- X-ray filtration value of table top <= 1.4 mm Al equivalent
- Operating via foot pedal

Compatible with:

- DigitalDiagnost VM

4

Three-phase 80 kW X-ray generator

1

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
- 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

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

Comprising

- Philips X- ray tube SRO 33100
- X-ray housing ROT 360
- Standard clamp fitting
- Two thermal safety switches (tube housing temperature)

The additional ceiling suspension motorization allows for major workflow enhancements. In combination with the auto-stitching option long leg and spine images can be acquired fully automatic, including tube rotation and detector movement.

This option enables also extended Move-to-position functionality for the VM vertical multi-purpose stand.

Compatible with:

- DigitalDiagnost VM
- DigitalDiagnost VS

7 Uninterruptable Power Supply 1

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.

Specifications

- 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)

Comprising

- UPS device including holder for vertical positioning, power cable

8 VM horizontal movement 1

The optional motorization of the VM column in horizontal direction allows for additional workflow enhancements. By the extended Move-To-Position functionality the detector moves e.g. from chest position to under table position by pressing just one button. Furthermore an automatic alignment of the detector with the tube is provided.

Compatible with:

- DigitalDiagnost software release 1.5 and above

9 Automatic optimal image resolution 1

Philips unique VarioFocus generator technology ensures optimal image resolution for all kind of examinations, by avoiding to compromise on which tube focus spot size to use, power load and exposure time.

Main benefits at a glance

- Optimal image quality through mixed focus spot adapted to each examination
 - Optimal resolution at the needed power
-

- DR and CR images in a single patient folder, with the same image processing for comparable image impression
- Usable with all standard PCR S Plus compatible cassettes and imaging plates
- Together with DigitalDiagnost Automatic Image Stitching option, long view PCR cassettes can be used and images are automatically stitched
- With the Reader Sharing concept, cassettes barcoding and image verification can be done either on the DigitalDiagnost Eleva workspot, or on one workspot of the PCR Eleva system

Comprising

- Barcode scanner
- PCR Integration and Reader Sharing software licenses for DigitalDiagnost

Compatible with

- DigitalDiagnost release 2 and above
- Reader Sharing: PCR Eleva system release 1.2 and above with the Reader Sharing option installed

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DICOM Package

1

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.

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.

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.

Comprising

- Software license

Compatible with

- DigitalDiagnost 2.0 and above
- 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

14 **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 $+90^{\circ}$ for height and side position
- wall holder for parking

Compatible with:

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

15 **Floor Plate for TH-S** **1**

Floor plate for TH-S to facilitate installation and adjustment.

Compatible with:

- Single Sided Table TH-S.