

GE Healthcare

# Diamond

Premier breast imaging





Diamond

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Diamond's all-inclusive, space-saving design integrates all major components, including the X-ray generator, in a single, small footprint that conserves precious floor space.

# One breast imaging system can please patients and clinicians alike.

Look no further than the award-winning Diamond mammography system from GE Healthcare.

Diamond's intuitive design was born in close collaboration with clinicians and patients. Perfected through a process of analyzing and understanding the basics of breast care. And refined with a keen eye on the human touch required in the delicate field of breast imaging.

The result? A powerful, precise tool that helps you provide the very best breast care. A smooth, easy extension of your thoughts and actions. And stunning proof of the depth of GE's commitment to leadership across mammography.



Easy, effortless, full positioning control with the ergonomic, all-in-one foot pedal leaves the technologist's hands free for patient care.

# Easier to position.

## **ParkBack. Free movement for better ergonomics.**

The contortions a technologist must go through to position a breast for imaging on a conventional mammography system can be uncomfortable – even painful.

Only from GE Healthcare, Diamond's ParkBack™ X-ray tubehead moves completely out of the way to give the tech a more comfortable positioning posture. Easier access for MLO or medial views. Fewer stress-related injuries. Better images.

And ParkBack provides a completely open workspace big enough for interventional procedures such as stereotaxis for biopsies.



MLO without ParkBack



MLO with ParkBack



LAT without ParkBack



LAT with ParkBack



The unique ParkBack feature moves the X-ray tube out of the way for oblique and lateral positioning – and provides ample open workspace for biopsy procedures.

# ECS.

## More comfortable compression.

Imaging breast tissue is made easier with Diamond's Easy Compression System (ECS) – only from GE Healthcare.

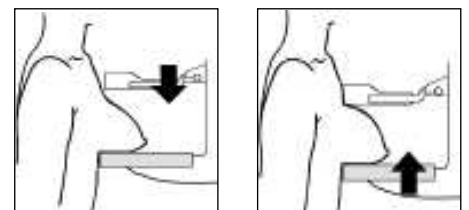
With ECS, you adjust the machine to the patient, not the patient to the machine. Both the paddle and the ProForm bucky can be moved for even, bi-directional compression that takes advantage of the breast's natural mobility without stretching skin or tissue.

Ideal for oblique views, ECS is like a third hand that lets you maintain contact with the patient during positioning and compression. It also aids in positioning wheelchair patients, kyphotic patients or patients with small breasts.

The result: More breast tissue imaged. Less patient discomfort. Better screening compliance. Fewer retakes. And higher throughput and productivity.



The ProForm bucky features effortless, motorized one-hand cassette loading and unloading and seamless construction for easy operation and cleaning.



More posterior breast tissue is made visible for imaging, with improved tissue separation and better visualization of anatomical structures.



Bi-directional ECS compression and the ProForm bucky allow more breast tissue to be imaged with improved patient comfort.



Seeing the finest detail in every image, exposure after exposure, patient after patient, is reassuring.

# Confidence comes from clarity.

## **AutoPoint.** **Getting it right the first time.** **Every time.**

Time-consuming retakes due to improper photocell placement annoy patients and techs alike – and devastate your imaging schedule.

Diamond's AutoPoint takes the guesswork out of photocell placement. It automatically selects the proper photocell from an array of eight individual cells.

AutoPoint digitally analyzes breast composition and structure. The PaddleLogic feature senses which paddle the operator selects. AutoPoint analyzes just the compressed area of the breast. And Diamond collimates automatically to the correct field size for each paddle.



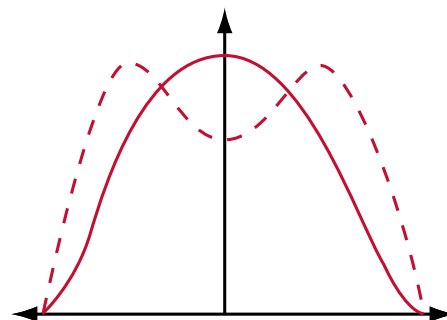
At the start of each exposure, AutoPoint selects the correct AEC detectors – each optimized in size, location and shape.

## **IQC.** **Compensating for** **processor variations.**

Diamond is just the first step in the mammography imaging chain. By entering the daily optical density reading, Integrated Quality Control (IQC) automatically matches Diamond's density setting to the film processor. It also alerts the operator if the processor drifts beyond the allowed variation.

## **The Diamond tube.** **Sharpening your image.**

Image quality is everything. The new Diamond X-ray tube delivers it all. Its precision-machined SP-cathode construction provides Gaussian intensity distribution within the focal spot, making the finest details visible in the images, especially with the small focus.



Intensity distribution within the focal spot.

— Diamond X-ray tube  
- - - Conventional X-ray tube

# Fast. Flexible. Accurate.

A natural extension of the Diamond breast care platform, the Delta 32 stereotactic system boosts exam efficiency, biopsy accuracy and patient comfort.

The clinically correct shape of this integrated digital stereotactic and diagnostic imaging unit optimizes positioning. Its sealed construction is easy to clean. And a free choice of projection angles within  $\pm 185^\circ$  minimizes the distance from the skin to the lesion.

Stereotactic angles, too, are freely selectable within  $\pm 15^\circ$ , so you can easily optimize biopsy accuracy and volume of view.

The ECS compression system with manual fine-tuning shows you applied force and compression thickness, while the motorized needle guide makes stereotactic exams more accurate and convenient.



Quickly transition from film screening to stereo. With Diamond, you can perform stereotactic procedures with excellent clinical visibility and easy access to the breast.

Fast and simple to use, the lightweight Delta 32 needle guide unit connects to the Diamond by simply being slid into position, with no external cables or connections needed. The ParkBack feature allows for a totally open workspace.





With the TACT algorithm reconstruction technique, the Diamond mammography system acquires a number of 2-dimensional digital images of the breast from different angles.



# 3D TACT.

## Add the next dimension of diagnosis.

With Diamond's TACT® (Tuned Aperture Computed Tomography) 3D technology, both you and your patients can rest easier.

That's because TACT helps you detect changes in breast tissue that might otherwise be missed. Distinguish real abnormal lesions from the superposition of normal parenchymal structures. Verify biopsy targets and reduce the number of biopsies performed.

TACT reconstructs a 3-dimensional model of a region of the breast from a series of 2-dimensional digital images. The breast is compressed with a normal spot imaging compression paddle and exposed from different directions using Diamond's semiautomatic stereotactic tubehead movement. A reference point in each image is used to define the geometry, so you can freely select projection angles.

TACT technology is used in Delta 32 TACT and Delta TACT for diagnostic digital spot and diagnostic 3D imaging.

# A focus on flexibility.

## **Connecting your HIS/RIS to your film-screen imaging.**

Reproducibility is critical in mammography. The Alpha ID II flashes to film all patient data, critical exposure factors and photocell placement. With optional HIS/RIS-link software, the system can be networked to your facility's patient information system. So patient lists can be accessed easily, and exposure information, including patient dose, can be read back for archiving and follow-up.

## **A place for everything.**

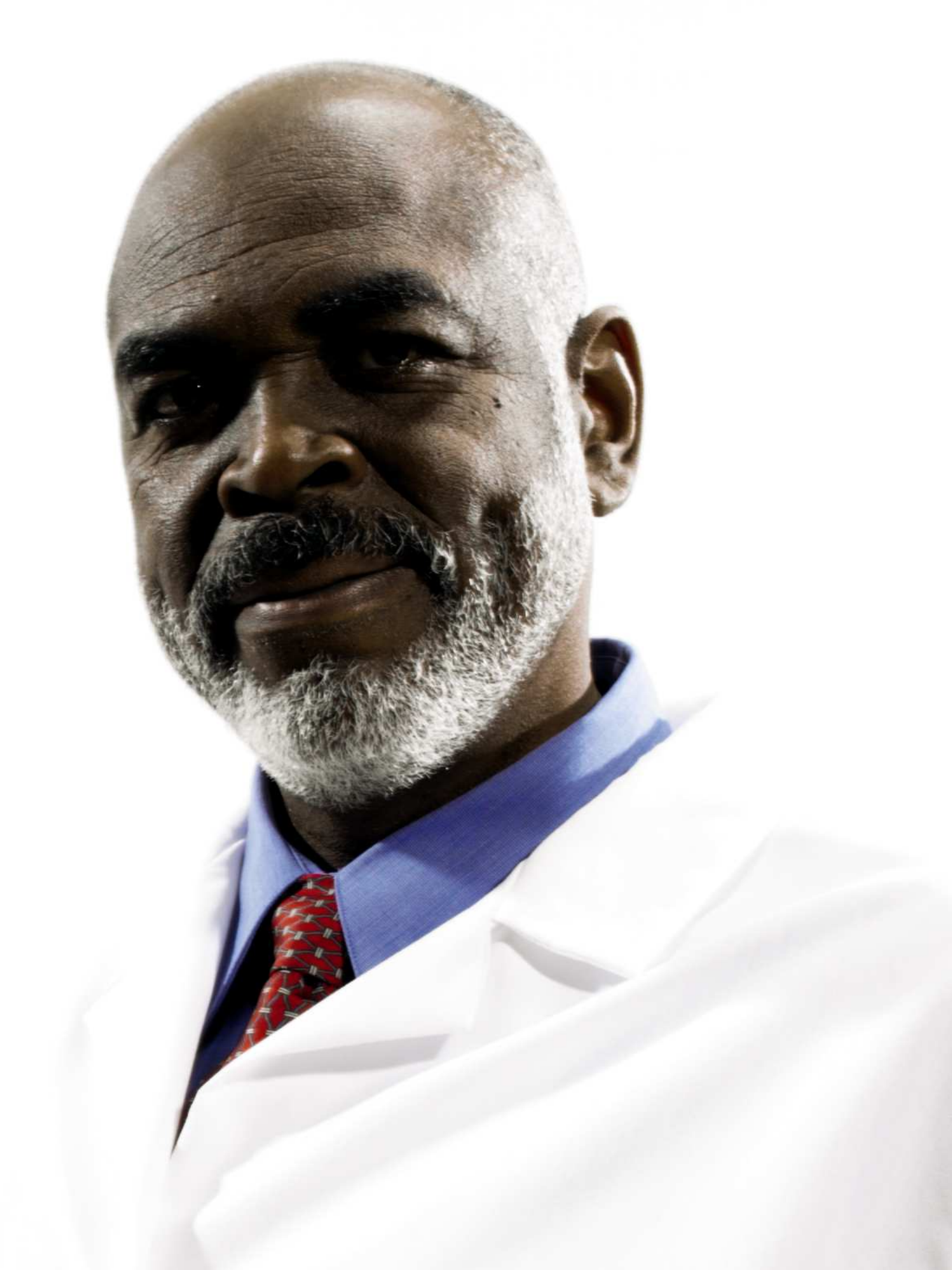
With its padded shelving, Diamond's Alpha storage system protects your investment in paddles and accessories – and helps you save time searching for what you need.

## **Dedication beyond the diagnosis. Only GE.**

From reassuring you that details are in clear sight, to helping you maximize the productivity of your department and staff, GE's commitment to and leadership across mammography is unmatched.

We continually develop platforms for new technologies that help you sharpen your diagnostic accuracy and increase the confidence of your clinical decisions. And we take innovation beyond imaging, helping you to enhance the clinical and financial outcomes of your entire mammography program.

Only GE can bring you such a fully integrated mammography experience – because we're just as committed to breast care as you are.



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GE Medical Systems, a General Electric company, going to market as GE Healthcare.

For more than 100 years, healthcare providers worldwide have relied on GE Healthcare for medical technology, services, and productivity solutions. So no matter what challenges your healthcare system faces, you can always count on GE to help you deliver the highest quality healthcare. For details, please contact your GE representative today.

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imagination at work