

# Achieve more consistent performance and improved clinical confidence

with the Definium™ 8000 to the Definium 656 HD Lift



# Give your X-ray department a personal assistant

What if you could help technologists perform more consistently so they're better at providing radiologists with diagnostic-quality images? You can. When you transform your Definium 8000 into an easy-to-use Definium 656 HD system through the Lift program, you'll give your staff a tool that works on their behalf. With a wide range of clinical applications, full component automation, and fast, motorized movement, technologists will be better equipped to quickly and repeatedly acquire high-quality images necessary for clinical confidence within in-room workflows. You'll also maximize your investment in your current system, while positioning your team for success.

## What's a Lift?

The Lift program is a smart, sustainable upgrade that entails reusing components from your current system and giving you credit for components harvested. Because you'll be updating your existing system, there will also be install and warranty savings that can result in a cost that's 20% less than a completely new system! You'll also have less downtime than you would if you installed a completely new system.

With this 656 Lift program, your system will be transformed to a Definium 656 HD.





## Upgrade overview

Get ready to support your technologists with added automation, workflow efficiencies, and improved image quality. When upgrading to Definium 656 HD, you will get:

- A choice of one or more **new FlashPad™ HD wireless detectors** [↗](#), which boast smaller, more densely packed pixels to quadruple image resolution.
- **New Helix™ advanced image processing software** [↗](#) that can deliver up to a 40% increase in detectability of fine structures <sup>1</sup> for clear, crisp images.
- **Overhead tube suspension (OTS)** [↗](#) improvements that include a new **12-inch touchscreen console** [↗](#) that **enables in-room workflows** [↗](#). You'll also get optimized **auto positioning** [↗](#) for more efficient workflows.
- **A live-streaming camera** [↗](#) on the tube head that is displayed at the acquisition workstation for improved patient monitoring.
- **Table improvements** [↗](#) that include a 18% smaller footprint, 82% static increased weight capacity, 45% increased dynamic weight capacity, and 13% increased coverage<sup>2</sup>. You'll also have more grid options to improve image quality.
- **Wall stand improvements** [↗](#) that include a light ring to indicate system readiness and **reverse tracking** [↗](#) to reduce technologist walking steps and physical exertion.
- A **redesigned user interface** [↗](#) for fewer clicks and an intuitive workflow. The common layout is shared with our latest mobile X-ray systems, allowing technologists to easily move between systems.
- New fleet management features, including the **cybersecurity package** [↗](#).
- Free **enhancements to already-purchased Advanced Applications**.
- The option to add Advanced Applications like **Angulated Auto Image Pasting** [↗](#), **Dual Energy Subtraction** [↗](#), and **VolumeRad** [↗](#) (if not yet owned).
- The option to add out-of-room exam workflow enhancements like the **Intelligent Workflow Suite** [↗](#) or on-device decision support software.

# Support your radiologists with new detectors and software that drive image quality

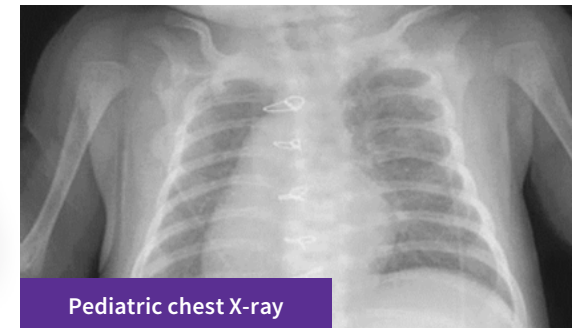
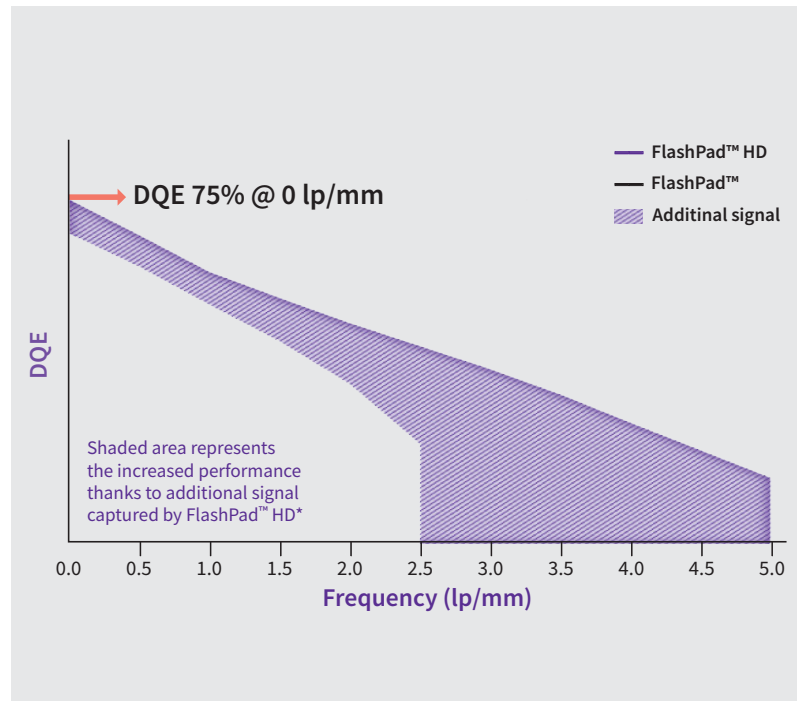
Your Definium 656 HD Lift leverages FlashPad HD wireless detectors and AI-driven image processing to reduce variability and provide optimal image quality.

**FlashPad HD detectors** have several advantages over the previous generation 41 x 41 cm (16 x 16 in) detectors.

- Improved image quality (IQ) and clarity with 4x the resolution<sup>2</sup>
- 75% detective quantum efficiency (DQE) for better low dose imaging (improved from 65%)
- More choices in size: 25 x 30 cm (10 x 12 in), 35 x 43 cm (14 x 17 in), and 43 x 43 cm (17 x 17 in)
- Lighter weight at only 3.8 kg (8.4 lbs) for better ergonomics
- No tether — they're wireless
- Pixels increased 350%<sup>2</sup>
- Fast wireless data transfer for faster preview and faster final images<sup>2</sup>
- **QuickShare** which allows the detector to work with different systems
- **QuickConnect**, which improves image transfer
- **AutoGrid** software, which replaces a physical grid, can be used to reduce setup time by up to 24%<sup>3</sup>

When coupled with FlashPad HD detectors, **Helix 2.2 Advanced Image Processing** improves small-detail detectability by up to 40%<sup>3</sup> and delivers improved image consistency, despite variations in exposure technique and challenging exam conditions. Features include:

- Anatomy-specific image enhancement
- Excellent imaging around metal implants
- AI brightness and contrast to deliver improved image consistency for 59 anatomy/view combinations
- Local contrast enhancement to improve spine visualization and lung detail
- Detail-preserving noise filter to help reduce noise levels



# Support your technologists with hardware improvements

## OTS improvements

Updates to the OTS also help facilitate faster throughput.

- A new **12-inch touchscreen-enabled OTS** allows technologists to stay close to the patient while finishing setup
- **Optimized Auto-Positioning Movement** helps optimize workflows
- A **tube head light** improves workflow by indicating adjustments are needed before technologists leave the room

## Table improvements

Table upgrades with the Definium 656 HD Lift program add more space to the room, improve durability, help you accommodate a wider range of patients, and help technologists move patients into position more easily.

- Static patient weight load capacity improved by 82%<sup>2</sup> (220 kg to 400 kg; 485 lbs to 882 lbs)
- Dynamic patient weight load improved by 45%<sup>2</sup> (220 kg to 320 kg; 485 lbs to 705 lbs)
- Patient coverage increased 13%<sup>2</sup> (183 cm x 61 cm to 188 cm x 68 cm; 72 in x 24 in to 74 in x 26.8 in Long x Lat)
- Detector auto travel range increased 17%<sup>2</sup> (68.5 cm to 80 cm; 27 in to 31.5 in)
- Footprint (with foot pedal) decreased 18%<sup>2</sup> (126 cm x 69 cm to 100 cm x 71 cm; 50 in x 27 in to 39.4 in x 28 in)
- More grids options (100 cm, 110 cm, 120 cm) compared to only 100 cm
- Carbon fiber tabletop is more durable than previous table, and has a rotating bucky with **QuickCharge** in-bin charging

## Wall stand improvements

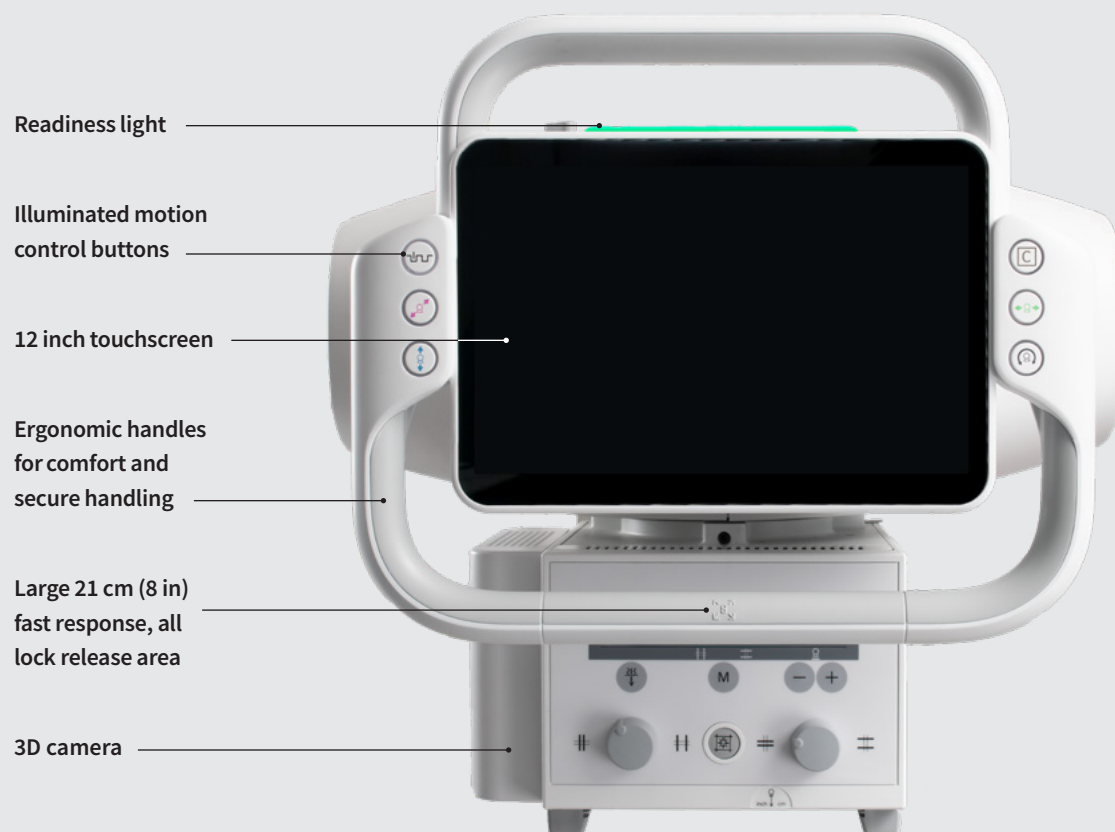
Technologists can use less physical effort and work faster with improvements to the wall stand.

- **Light ring** indicates exposure and system readiness, helping save technologist steps
- **Reverse tracking**, in which the wall stand automatically moves to follow the OTS, makes patient alignment easier by reducing technologist walking steps and physical exertion
- Left or right insert options let technologists choose which side to have the detector inserted
- **Optional extended arm** allows for easier positioning with stretcher patients



## The most technologically advanced, ergonomic, and usable tube head console you can get.

The 12" touchscreen UI on the **OTS console** <sup>☑</sup> delivers full functionality of work list management, exam setup, protocol selection, positioning setup, and technique modification. This technology allows the technologist to finish the exam setup and positioning while remaining close to the patient.



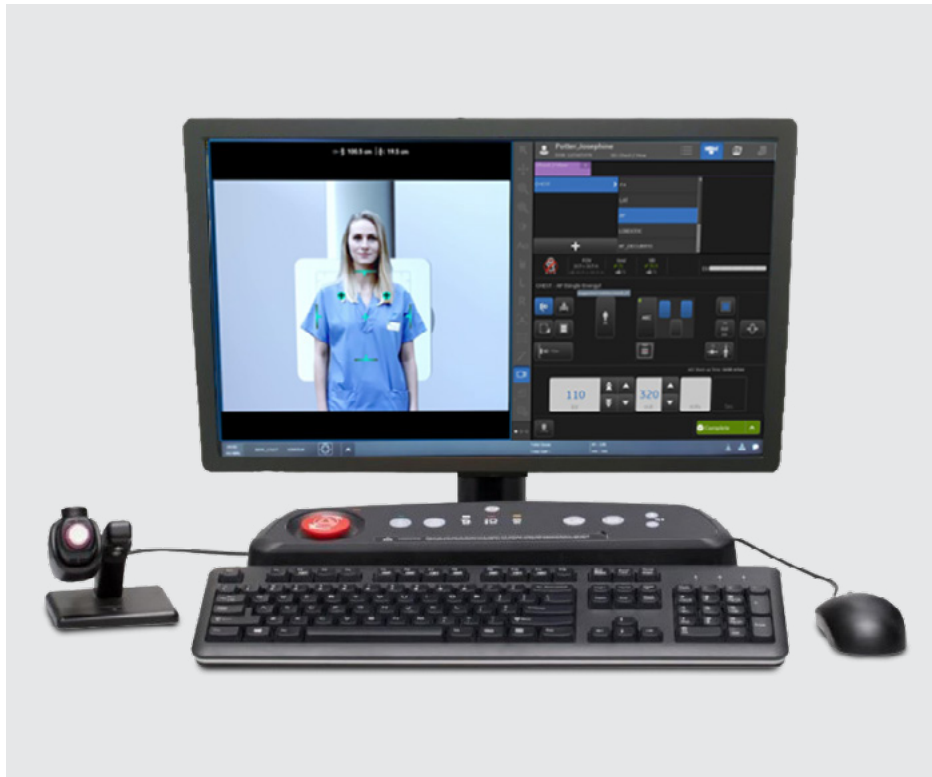
## Complete workflow control <sup>☑</sup> in the exam room

Definium 656 HD allows technologists to do everything they need at the patient bedside without having to walk back and forth to the acquisition workstation outside the room. It combines an exceptional user experience controlled at the tube head touchscreen and automated component positioning to reduce the amount of movement and manual work required by technologists.

# Enjoy effortless, effective, and efficient imaging

The Definium 656 HD Lift upgrade for your Definium 8000 includes a redesigned user interface (UI) that requires fewer clicks plus additional innovative features that converge to assist technologists in delivering fast, thorough, and accurate exams. You'll enjoy:

- A **common layout** for a workflow consistent with the latest GE HealthCare mobile radiography systems.
- A customizable menu with quick-access tools.
- An intuitive 24-inch, high-resolution touchscreen and more space compared to two 19-inch monitors.



- **QuickEnhance** for reprocessing images with a custom look with just one touch.
- **Real-time IP Looks** for faster, easier fine-tuned image look customizations.
- **IQ Compare** for simultaneous viewing of standard and customized looks to simplify comparisons.
- Lightning-fast imaging when you can get a preview in one second (reduced from 5 seconds) with similar image quality to the final image.
- Super-fast data access and the ability to store more than 17,000 images.



# Focus on patient care with improved security and management

Due to increased risk of cyber attacks, malware, and security vulnerabilities, your Definium 656 HD Lift package will include our latest **security software**. You'll also find time-saving improvements in software management.

## Features include:

- Anti-virus protection for malicious software
- Data encryption at rest and in transit
- **Remote software download** capabilities that allow you to install critical software updates with minimal downtime
- Intelligent calibration that slashes full calibration time from 70 minutes to 18 minutes
- 30-day Quality Assurance Procedure (perform quality checks once a month instead of once a week)
- Multiple language support (UI and protocols can be displayed in English, Chinese, Japanese, or Korean)



# Optional add-ons for state-of-the-art imaging

The following features can be added to your Definium 656 HD Lift upgrade for additional cost.

## Advanced Applications

For those who already own an Advanced Application, enhancements are included for free with the Definium 656 HD Lift upgrade.

If not already owned, the following applications may be optionally purchased:

### Auto Image Paste<sup>†</sup>

Creates images that extend beyond the size of the detector with a single, highly automated procedure (wall stand or table). The new version features improved table coverage from 100 cm to 110 cm.

### Angulated Auto Image Paste algorithm<sup>†</sup>

Enhances the success rate of Auto Image Paste.

### Auto Spine<sup>†</sup>

An intelligent algorithm that follows the contour of the spine for vertical equalization, enabling a natural balance of brightness and contrast along the patient body.

### Dual Energy Subtraction<sup>†</sup>

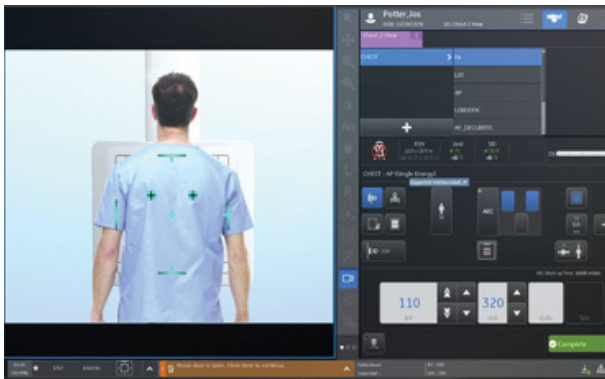
Separates soft tissue and bone structures to allow detection of abnormalities possibly obscured in a conventional radiograph. In the latest version, exposure time is less than 160 ms compared to 200 ms previously.

### VolumeRAD™<sup>†</sup>

Digital tomosynthesis provides additional diagnostic information with multi-level image slices. In the latest version, reconstruction time has improved from 3 minutes to 60-80 seconds.

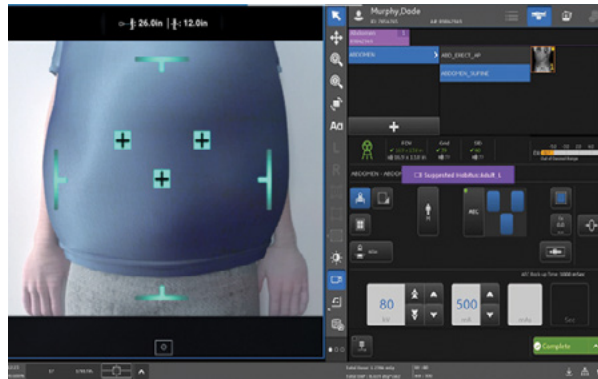
## Out-of-room workflow enhancements

Enabled by a live-streaming camera on the tube head, the **Intelligent Workflow Suite**<sup>†</sup> combines computer vision, video analytics, and precision engineering to deliver a solution for common errors. The Intelligent Workflow Suite<sup>†</sup> includes:



### Position Assist<sup>†</sup>

Shows the detector boundaries, ion chamber locations, and active ion chambers so you can avoid position-related retakes.



### Technique Assist<sup>†</sup>

Measures the thickness of the patient and, using a database of programmable sizes, suggests a size optimized to the specific patient. This helps create more consistent images for your patient population.



### Patient Snapshot<sup>†</sup>

Takes an optical picture at the same time as the X-ray exposure. As an option, the system can attach to the picture as a secondary DICOM capture when sent to the PACS, providing context to the radiologist.

# Optional add-ons for decision support

The upgrade also includes the option to add on AI-enabled software packages for decision support.

## Leverage AI for image consistency and reduced retakes



### Quality Care Suite<sup>†</sup>

Provides real-time, on-device, automatic quality checks for frontal chest X-rays with Intelligent Auto Rotate, Intelligent Protocol Check, and Intelligent Field of View



### Critical Care Suite 1.0<sup>†</sup>

The world's first collection of on-device AI algorithms for automated measurements, case prioritization, and quality control



### Repeat-Reject Analysis<sup>†</sup>

Zero in on root causes, enhance training, drive efficiency, and help reduce unnecessary dose when you connect to compatible X-ray systems and use web-based dashboards to manage quality assurance

## Leverage data to improve equipment utilization and remote services to maximize uptime



### iCenter<sup>†</sup> through remote connectivity

Use the full power of healthcare data analytics to optimize use of your X-ray equipment and benchmark performance



### OnWatch<sup>†</sup> remote service

90% of service calls are diagnosed or fixed remotely in less than 30 minutes

### Inquire about the Definium 656 HD Lift program today!

There are many reasons to update your Definium 8000 through the Definium 656 HD Lift program. Whether you're looking to ease your team's physical workload, reduce acquisition errors with AI-enabled solutions, or increase patient accessibility, the Definium 656 HD Lift program provides a sustainable answer to new workflow and technology capabilities designed to help you do it all.

→ Talk to your GE HealthCare representative about what an upgrade would look like for you.

→ Learn more about the [Definium 656 HD system](#).

## About GE HealthCare

GE HealthCare is a leading global medical technology, pharmaceutical diagnostics, and digital solutions innovator, dedicated to providing integrated solutions, services, and data analytics to make hospitals more efficient, clinicians more effective, therapies more precise, and patients healthier and happier. Serving patients and providers for more than 100 years, GE HealthCare is advancing personalized, connected, and compassionate care, while simplifying the patient's journey across the care pathway. Together our Imaging, Ultrasound, Patient Care Solutions, and Pharmaceutical Diagnostics businesses help improve patient care from prevention and screening, to diagnosis, treatment, therapy, and monitoring. We are an \$18 billion business with 51,000 employees working to create a world where healthcare has no limits.

Follow us on [Facebook](#), [LinkedIn](#), [Twitter](#), [Instagram](#) and [Insights](#) for the latest news, or visit our website [gehealthcare.com](https://www.gehealthcare.com) for more information.

The Definium 656 HD Lift program replaces your existing Definium 8000 system with a Definium 656 system. The word "upgrade" used in this document refers to raising the quality or usefulness of a given component/feature/function.

The Definium 656 Lift is not commercially available in all markets. Check with your local GE HealthCare representative for availability in your country.

† Indicates optional features

### References

1. Overall, up to 40% detectability increase is measured with a Contrast Detail phantom study comparing FlashPad and FlashPad HD detectors. Source: GE HealthCare whitepaper, High resolution for improved visualization (DOC2045904).
2. Improvements for component functionality are calculated by comparing the specifications found on the Definium 8000 datasheet (Doc No. 5177911-100 Rev. 7) and the specification found on the Definium 656 HD datasheet (JB20116XX).
3. Reduction percentage based on a GE HealthCare study where a technologist conducted the same exam 30 times utilizing an anatomical phantom, alternating between grid and AutoGrid exams. Exam times were decreased on average by 35.4 seconds (~24%) with AutoGrid (JB77154XX).

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