

# ACUSON Sequoia Ultrasound System

System Overview  
Release 3.5 (VB30)



# Objectives

- **Review external features**
- Identify monitor, Control Panel, and Touch Screen
- Describe transducers
- Review peripherals
- Discuss care and cleaning



# System features



24" Barco monitor with Dual-layer technology



Supports the DICOM GSDF standard directly on the system and on export



Integrated sensor with auto calibration functionality

Supports QAWeb for monitor quality assurance, reporting, calibration, and asset management

# System size

- Small footprint
- System weight:  
125 kg (275 lbs.)



22.8 in.  
(58 cm)

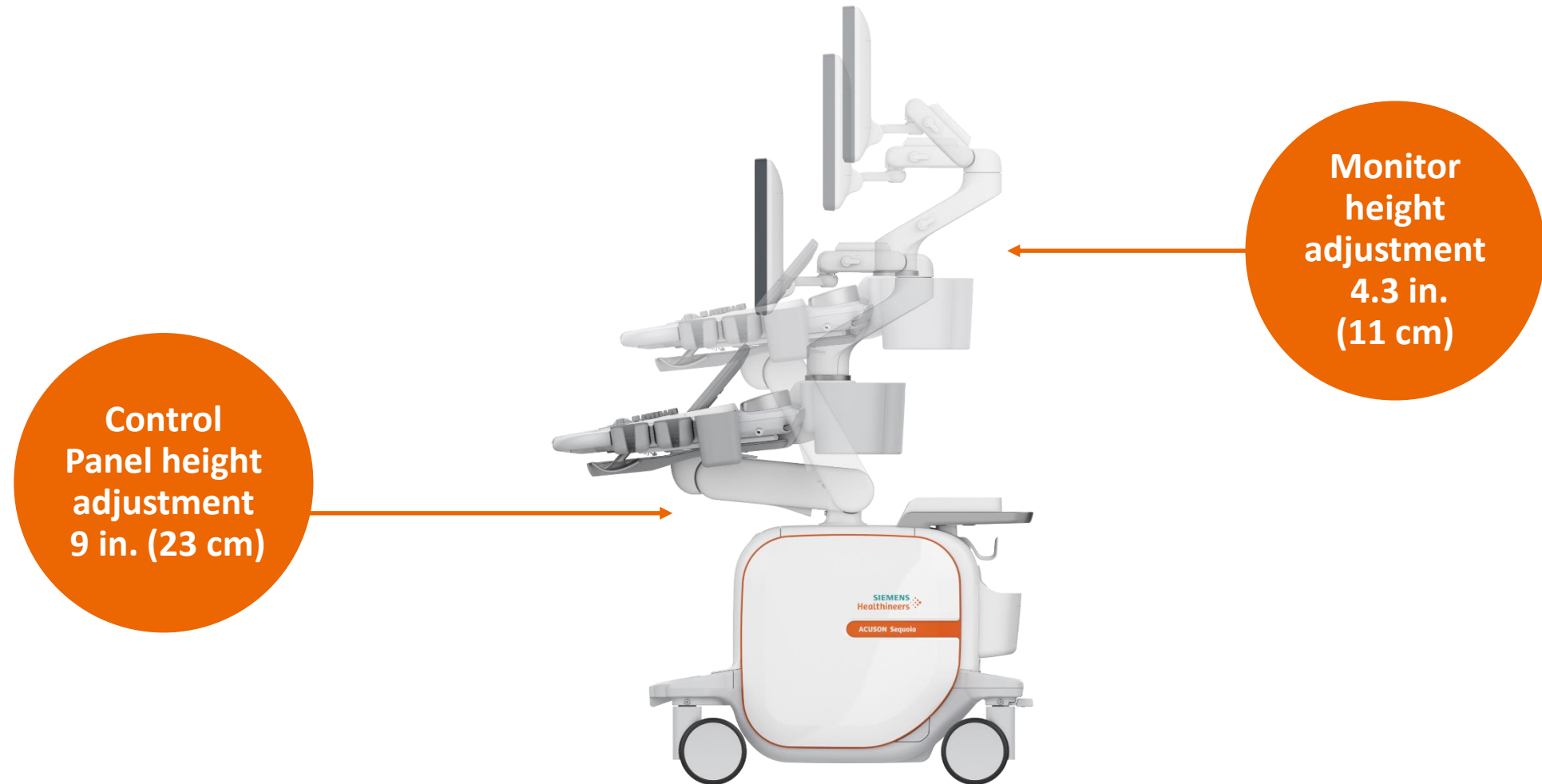


33 in.  
(84 cm)

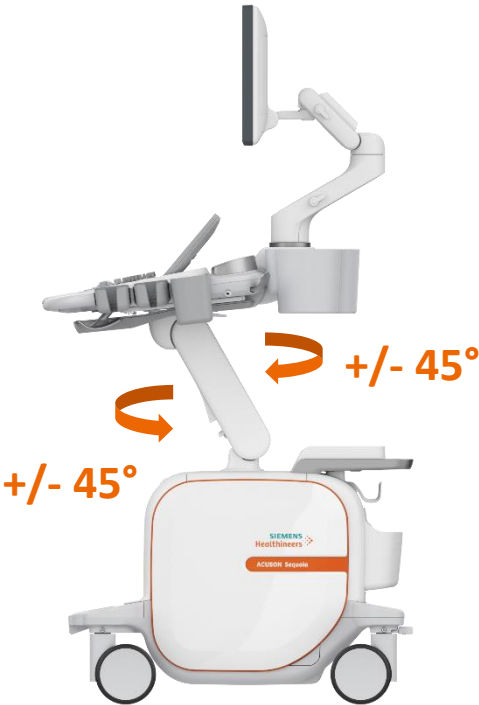


54.7 in.  
(139 cm)

# System articulation



# Control Panel articulation



Top + bottom  
swivel  
90° left



Top swivel  
45° left



Center  
position



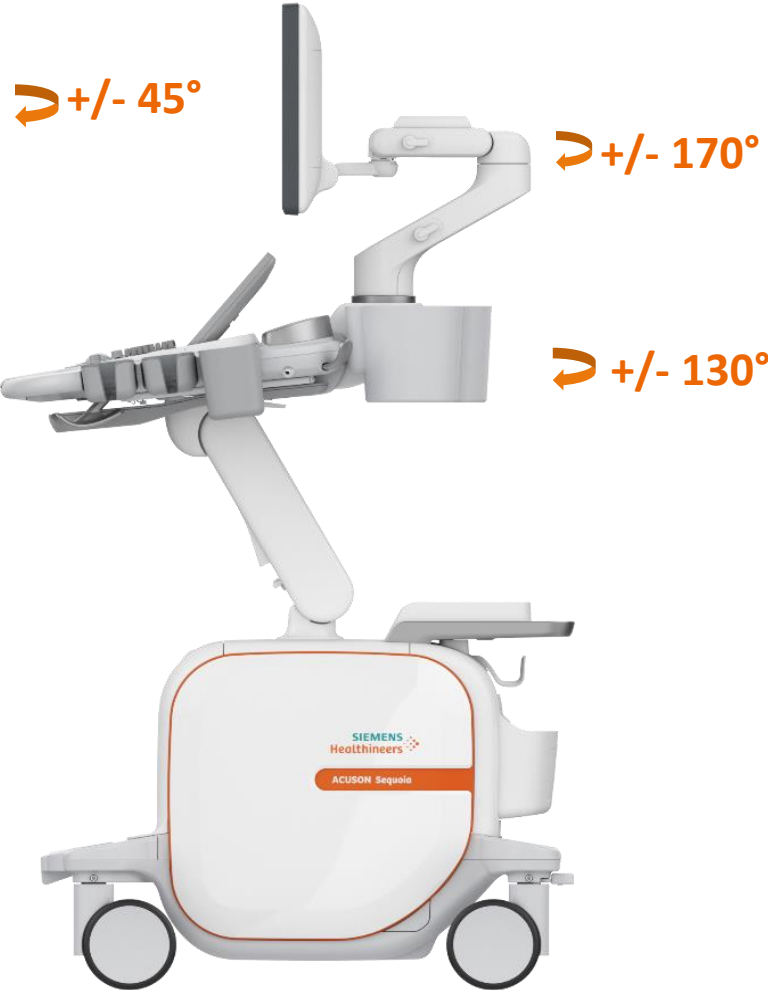
Top swivel  
45° right



Top + bottom  
swivel  
90° right



# Monitor articulation







**Rear basket**



**Back panel bin**



**Control Panel bin**

# Transducer ports

## Five transducer ports

- Four active imaging ports
- One CW pencil port
- Transducer storage for two transducers



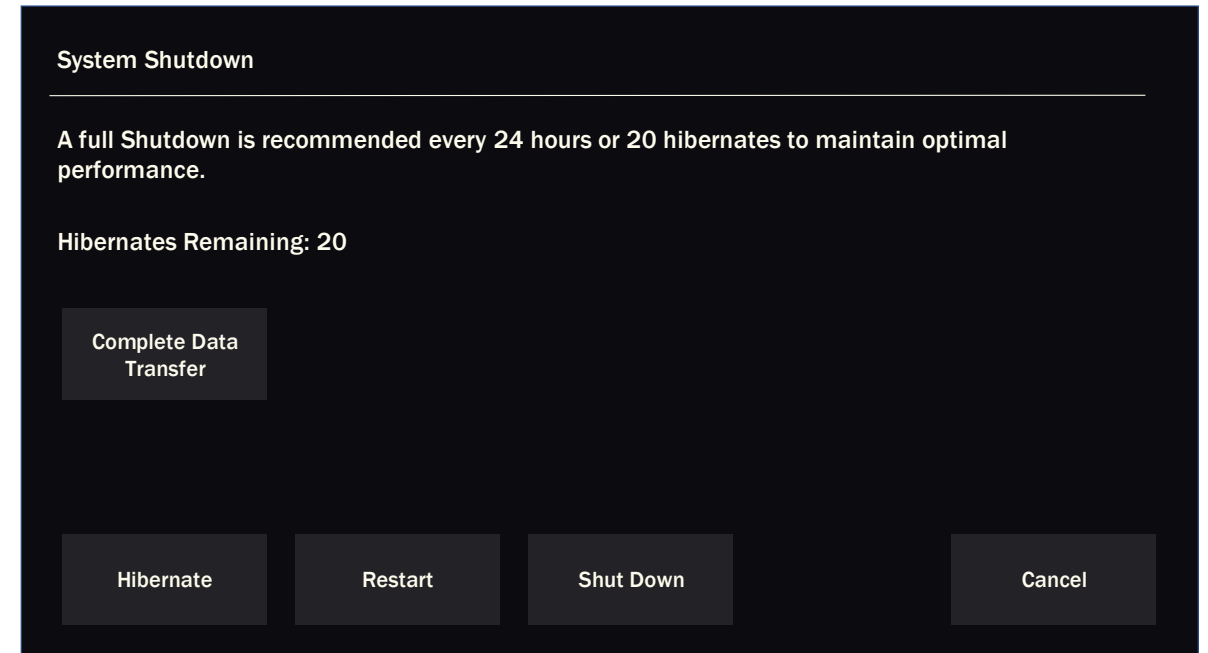
## Easy wheeling castors

- Central steering
- Lock
- Rear wheel lock/swivel



# Power on and hibernate mode

- Boot-up time from complete shutdown: 150 seconds
- Boot-up time from hibernation: 30 seconds



**Note:** *No standby time limit between exams.*

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## Monitor

24" Dual-layer LCD



## Articulation

360° of swivel & folds down completely



# Touch Screen



## Tilting adjustment

30–60-degree  
adjustment



## Two USB ports

Left side of Touch  
Screen



# Control Panel

Simple and intuitive design



Integrated gel warmer



Five transducer holders

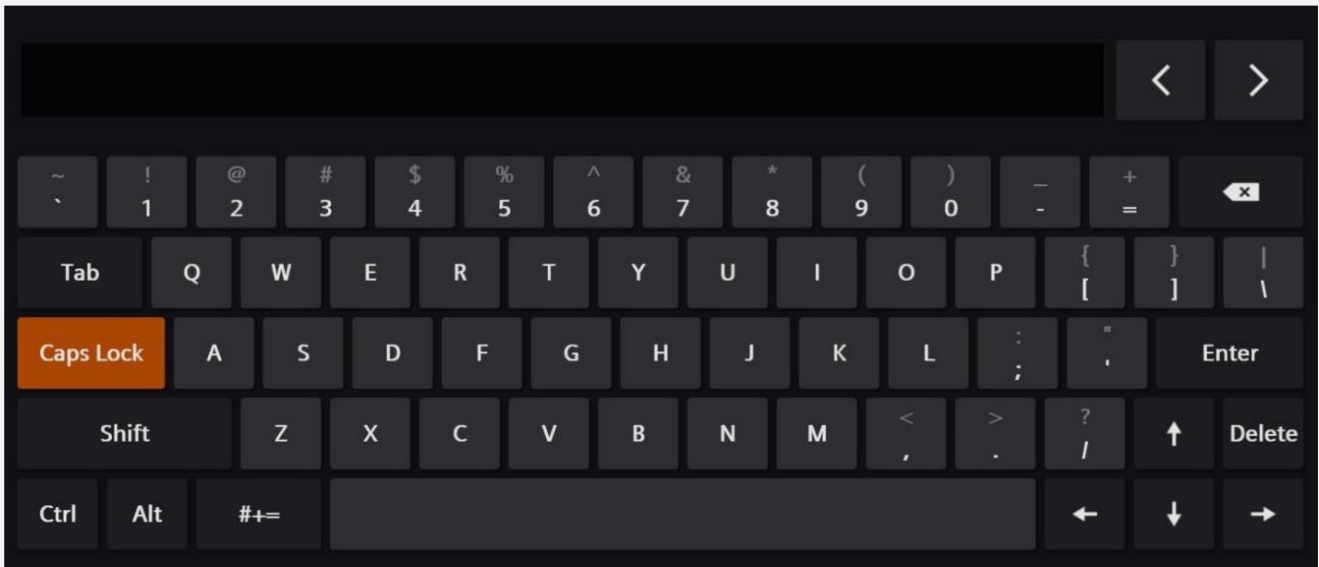


Large gel holder





Optional retractable  
keyboard



Standard virtual  
keyboard

# Objectives

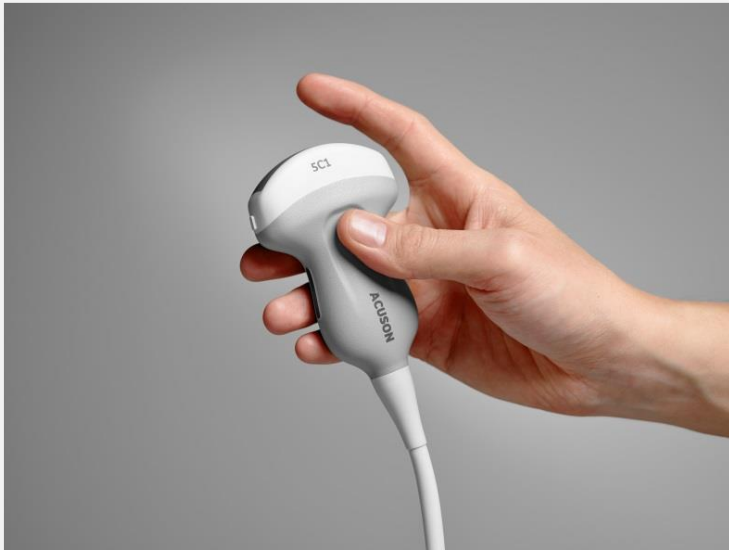
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The ACUSON Sequoia has 25 transducers available

- The transducer design includes:
- Compact pinless design
  - Retention pin

Convex	Linear	Volume	Phased array	Micro convex	Pencil	TEE
DAX	HLX	5Z1	10V4	11M2	CW2	Z6T
9C3	18H6	9VE4	8V3	11M3	CW5	
9C2	18L6	7VC2	5V1	10EV3		
5C1	15L4		4V1	9EC4		
	14L5					
	10L4					
	7L2					



## **Gesture detection**

Double-tap handle to easily activate transducers



## **Five transducer ports**

- Four active imaging ports
- One CW pencil port



## Deep Abdominal Transducer

- Multi-row transducer allows greater focus in the elevation plane for increased penetration
- 1-3.5 MHz bandwidth
- 2.2 MHz center frequency
- Up to 55 cm of penetration
- Supports shear wave elastography, UDFF, fusion, and contrast imaging
- Gesture detection



## 5C1 Workhorse Transducer for Abdomen and OB/GYN

- Single crystal technology
- 180 Element with fine pitch for excellent resolution and steering performance
- 5 to 1 MHz wide bandwidth
- Excellent intercostal access due to small footprint (45 mm)
- Supports Wide Field of View, Shear Wave Elastography, UDFF, Fusion and contrast agent imaging
- Gesture detection





## 9C2 Transducer for Pediatrics, OB/GYN, and Fetal Echo

- Single crystal technology
- 2.8 to 7.0 MHz wide bandwidth
- Excellent intercostal access due to small footprint
- Supports shear wave elastography, UDFF, Auto pSWE, and contrast imaging
- Gesture detection



## Adult cardiac transducer

- Single crystal technology
- Six frequencies, including fundamental and harmonic
- H High frequency – second and third harmonic blending
- Ergonomic improvements – lighter, smaller footprint and handle, less cable drag
- Gesture detection



## Adult cardiac - GI volume transducer

- Single crystal design
- Seven frequencies, including fundamental and harmonic
- 2D, 4D transthoracic and BiPlane+ imaging for cardiology
- 2D, 4D and BiPlane+ imaging for abdominal and gyn exams
- Gesture detection

# Transducers – Complete abdominal solution

## 4V1, DAX, 5C1, 9C2

- 5C1 Workhorse transducer
- 4V1 for small rib space, interventional procedures and pSWE
- DAX for Deep Abdominal imaging up to 55 cm
- 9C2 for small adults and pediatrics



# Cable management



Cable hooks are located on the front and back of the Control Panel

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# Peripheral box

Positioned on back of cart

- Any combination of fusion, BW printer, and/or DVD
- Storage tray with non-slip coating
- Without peripherals, a larger storage tray is standard





# Thermal printer

Positioned on the back of the cart:

- Sony 898A6 BW Printer
- Black and white thermal printer
- The printer can be oriented to face and print toward the left or the right of the system



# Blu-ray/DVD/CD combination drive

- Recordable disc drive for storage, review, and archival of data
- Compatible with only Blu-ray disc or medical-grade DVD media



# Foot Switch FSU-3000S

- Ideal for interventional cases
- Three pedals to configure
- USB connection



- ECG with built-in respirometer
- Auxiliary ECG connection
- Optional



## Stream compressed video feed to configured location

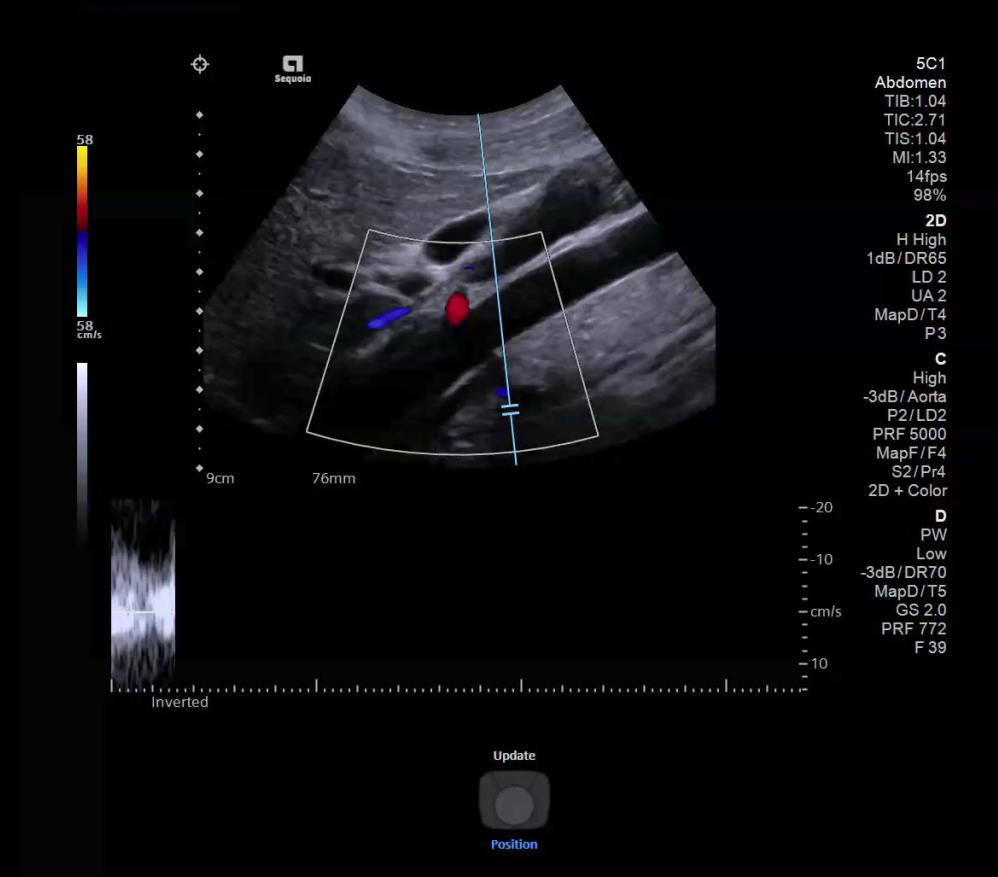
- Output stream selection – USB, network, DVD

## Compression format

- Full 1080P recording
- Can be played in a standard Blu-ray DVD player or USB/network drive

## Start/Stop integrated into workflow

- Easy access on Touch Screen



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# Cleaning the system

1. Power off the ultrasound system and unplug the power cord from the power supply
2. Use a clean gauze pad or lint-free cloth, lightly moistened with a mild detergent, to wipe:
  - Touch Screen and monitor
  - Control Panel
  - Trackball and slide pots
3. After cleaning, use a clean, lint-free cloth to dry
4. Use an approved disinfectant wipe to disinfect the system and accessories, except for the monitor screen, Touch Screen, and transducer ports

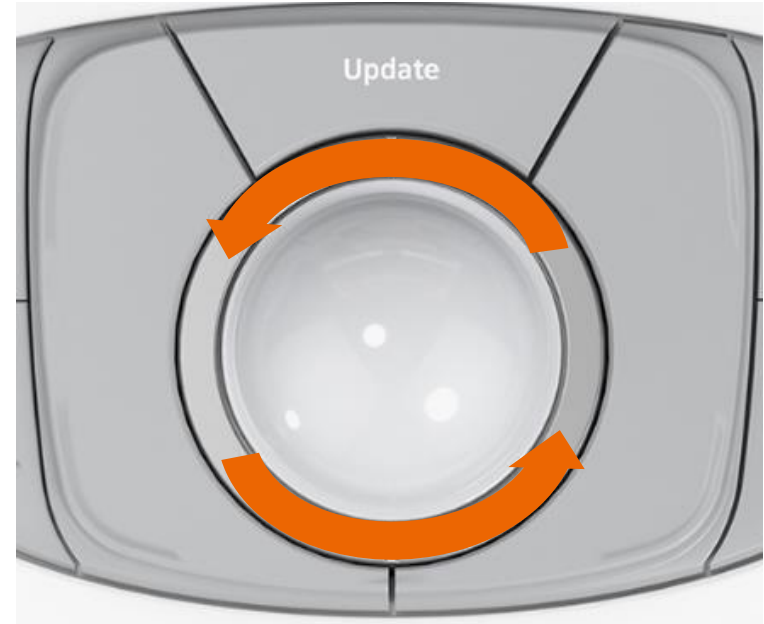


*Ensure that fluids do not seep into any openings on the system*



# Cleaning the trackball

- Rotate the ring around the trackball counterclockwise and carefully lift to remove
- Clean the ring and trackball with a cotton swab or lint-free pad moistened with a mild detergent
- Clean inside the trackball assembly with a cotton swab or lint-free pad moistened with mild detergent
- Use an approved disinfectant wipe to disinfect the ring, trackball, and trackball assembly
- Allow the components to dry before reassembly
- Place the ring over the trackball, aligning the tab with the point of attachment on the assembly and rotate clockwise until the ring snaps back into place



# Approved disinfectant wipes

	Cleanisept	Sani-Cloth AF	Sani-Cloth AF3	Sani-Cloth Bleach	Sani-cloth HB	Sani-Cloth Plus	Super Sani-Cloth
Ultrasound system	✓	✓	✓	✓	✓	✓	✓
Transducer holders	✓	✓	✓	✓	✓	✓	✓
Trackball assembly	✓	✓	✓	✓	✓	✓	✓
Gel warmer	✓	✓	✓	✓	✓	✓	✓
Touch Screen	✓	✓	✓	✓	✓	✓	✓
Monitor screen	✓	✓	✓	NA	NA	✓	✓
Transducer ports	NA	NA	NA	NA	NA	NA	NA

Use only approved disinfectant wipes on surfaces of the system and accessories, except the monitor screen and transducer ports.

✓ = Approved

NA = Not approved

# Cleaning the air filter

1. Power off the system and unplug the power supply
2. Push the air filter tray in to release the locking mechanism and pull the tray from the system
3. Rinse the air filter with running water and allow the filter to completely dry. To accelerate drying, gently shake the filter or blot with a clean, lint-free cloth
4. Slide the air filter tray back into the ultrasound system



*Air filter should be checked and cleaned weekly to maintain proper system cooling*



*Inserting the air filter tray into the ultrasound system while still wet can cause damage.*

# Trademarks and disclaimers

ACUSON Sequoia is a registered trademark of Siemens Medical Solutions USA, Inc.



Thank you for your enthusiasm!

# Questions?