Noblus

SYSTEM DESCRIPTION

The Hitachi Aloka Noblus is a premium portable ultrasound system that supports multiple applications over a wide range of clinical environments. All circuits related to image quality are fully digital which allows for high spatial resolution, high contrast resolution and a wide dynamic range. The removable console contains an internal battery allowing examinations to be performed even when an external power source is not available. Noblus also supports wireless LAN for DICOM communication. A full complement of linear, convex and phased array transducers are available for Noblus allowing the ultimate in clinical flexibility.

CLINICAL USES
Shared Services, Emergency Medicine, Pain Management, Wound Care

APPLICATIONS
Radiology, Interventional Radiology, Obstetrics, Gynecology, Abdominal, Peripheral Vascular, Urology, Musculoskeletal, Pediatrics, Cardiology, Small Parts

POWER REQUIREMENTS
Input: 240/120 V @ 60 Hz
Power Consumption:
(Standard Components): 250W
(Using Cart): 550W

ENVIRONMENT
Temperature: 10 ~ 35° C
Relative Humidity: 30 ~ 85%
(No Condensation)
Atmospheric Pressure: 700 ~ 1060 hPa

PHYSICAL DIMENSIONS

CONSOLE

Weight: 19.9 lbs (9 kg)
Dimensions: 13.8” x 20.2” x 15.0”
Display: 15” Non-interlaced HD LCD
Pixels: 1,024 x 768
Display Range of Motion:
Swivel Angle: +/-90 deg.
(Tilt Angle: -90 ~ +30 deg.

CONSOLE WITH CART, PROBE EXTENSION UNIT AND B&W PRINTER

Weight: 88.2 lbs (40 kg)
Dimensions:
20.5” x 20.4” x 44.3” (Height is 52.2” in fully raised position)

STANDARD IMAGE QUALITY FEATURES

HI Definition Tissue
Harmonic Imaging (HdTHI)
Extends penetration and increases resolution by employing a low-frequency sub-harmonic band to create a larger second harmonic band.

HI Compound Imaging (HI Com)
Is especially beneficial for improving the visibility of luminal structures. HI Com transmits and receives ultrasound beams in various directions and superimposes the resultant images in real time.

Adaptive Imaging (HI REZ+)
Utilizes the Hitachi Aloka’s high speed digital processing engine to extract structures and emphasize tissues without reducing frame rate.

Fine Flow
Displays high-definition, high frame rate color doppler images down to fine vessels with minimal blooming.

STANDARD WORKFLOW EFFICIENCY

HI Support
Reduces examination time by allowing time gain compensation, B mode gain, baseline, pulse repetition frequency and doppler gain, etc. to be adjusted with a single touch.

On-Board User Manual
User Manual is integrated with the application allowing for convenient user guidance.

Examination Data Management and Storage
Noblus stores full-fidelity images, measurements, and other data internally and can also copy information to USB and USB HDD.

Auxiliary Monitor Support
Noblus has a DVI-D connector standard for auxiliary monitor attachment.
Real-time Tissue Elastography
Allows the virtual palpitation of tissue within the ultrasound beam. The stiffness of different tissues are represented by distinct colors which are superimposed on the B-mode image. This feature can greatly contribute to the detection of impalpable tumors and can aid the clinician in determining where to biopsy.

Real Time 3D Imaging (4D)
Compact and lightweight probes support the acquisition of real time volume data with high visibility.

Spatio-temporal Image Correlation (STIC):
STIC is a function to display any cross section or 3D image from any angle, as one heartbeat.

Contributes to detailed evaluations by enabling observation from various cross sections.

IMT Measurement
To aid in the detection of the presence of atherosclerotic disease. Automatically measures Intima Media Thickness (IMT).
In addition to three-point measurement, Max and Mean IMT can be measured and graphed.

Real-time Doppler Measurement Function
Automatically traces and measures Doppler waveforms in real time.
Reduces examination time by cutting operation steps of freezing and tracing. The waveform being measured and Vp, Vd can be displayed with markers in real time.

Extended Field of View
The ability to visualize extended anatomy in a single image. The steerable field of view eliminates excessive transducer movement and increases patient comfort.

Multi-slice image with 2.5 mm intervals of the fetal heart using STIC, gestational age of 26 weeks and 6 days.
The 2 ventricles, atria and descending aorta are clearly depicted.

Contrast Agent Harmonics*
Contrast-enhanced ultrasound** can be used to image blood perfusion and flow rate in the heart and other organs.

**Contrast enhanced image of a focal liver mass.

DICOM Store (Storage Commit)
DICOM Print
DICOM Query/Retrieve

* Ultrasound contrast agents have not been cleared for use in the USA by the FDA.