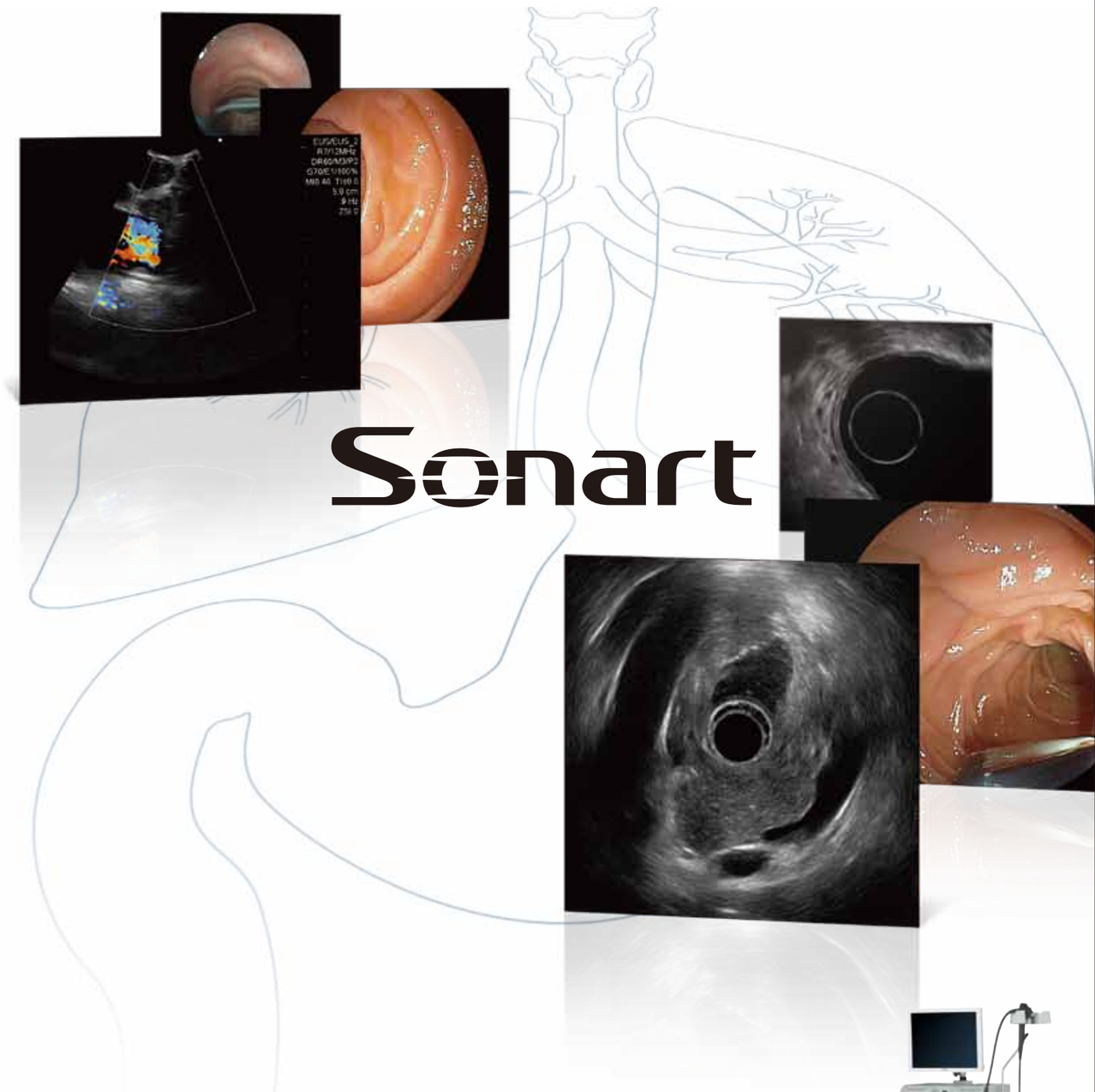
FUJIFILM



FUJIFILM
Endoscopic Ultrasonography System

＊Specifications are subject to change without notice.

FUJIFILM

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Sonart, FUJIFILM's endoscopic ultrasonography system with high performance in a compact design providing high quality images.

Sonart

Sonart, an endoscopic ultrasonography system, is now available.

Sonart ensures high quality image and high performance in a single compact cart. ZONE Sonography™ technology and Sound Speed Correction technology deliver delineation of clear and high quality images.

Years of research and development to reduce patient discomfort and improve operator efficiency during endoscope examinations led to the development of Sonart, the integration of ultrasonographic diagnosis and endoscopy systems.

For a more accurate diagnosis, advanced image processing technology integrates improved endoscope maneuverability and insertion capability. The compact, one-cart system supports various applications.

Equipped with the Super CCD Honeycom, the system delivers high-resolution endoscopic images and high quality ultrasonic images. Electronic 360° radial echo-endoscope and electronic curved linear array echoendoscope provides excellent therapeutic capabilities. Low and high frequencies (5, 7.5, 10, and 12 MHz) are available. In addition, the system offers excellent scalability, allowing the use of the ultrasonic bronchoscope and miniprobe system.

SU-8000, an ultrasonic processor with high quality image

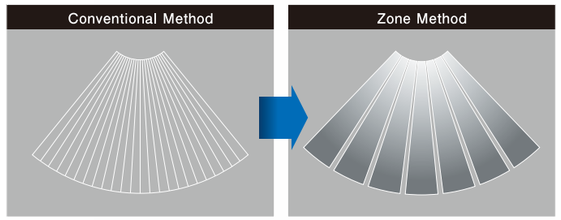
Equipped with ZONE Sonography™ technology and Sound Speed Correction technology, the SU-8000 produces high quality images. This compact, one-cart system facilitates endoscopic ultrasonography.

■High quality image

ZONE Sonography™ technology ensures high quality images

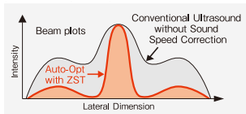
● ZONE Sonography™ technology is based on an innovative idea

In conventional ultrasound systems, the sound speed in the body depends on physical factors, and thus the use of a narrower beam requires a longer time for data acquisition, imposing limitations on improvements to image quality. ZONE Sonography™ technology defies conventional wisdom in ultrasonography. The technology delivers wide ultrasound beams and quickly acquires large amounts of echo data in sizeable zones. Split-second data acquisition allows highly advanced image processing.



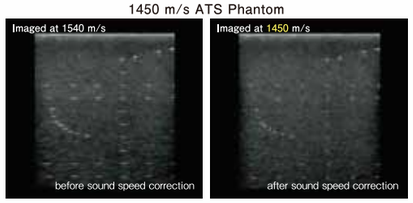
● Sound Speed Correction technology improves image resolution

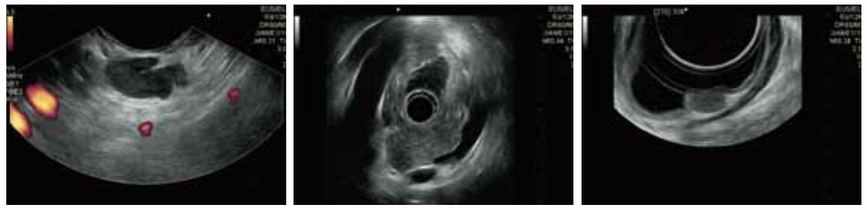
Advanced image processing technology estimates the optimal speed of ultrasound traveling through the body (sound speed) and constructs images.



What is sound speed correction?
The resolution in the lateral dimension deteriorates due to a difference in sound speed. By correcting this and carrying out optimization, the resolution in the lateral dimension is improved.

1450 m/s ATS Phantom





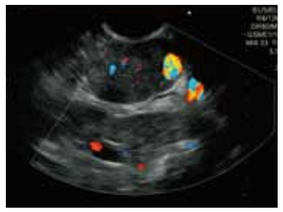
Displaying high quality images in various modes

Technologies developed in the field of ultrasonographic diagnosis improve the quality of ultrasonic images. Images created from advanced image processing enable the use of appropriate modes for your setting.

● C mode

The color Doppler function obtains hemodynamic information in disease areas and helps you locate the observation site and vascular structures.

SU-8000 Scannig Modes;
C mode,Power Doppler,
Pulse wave,B mode,M mode



C mode

B mode

● Frequency switching

A wide range of frequencies (5, 7.5, 10, and 12 MHz) help to delineate clear images of the gastrointestinal wall and adjacent organs.

Ultrasonic Processor
SU-8000

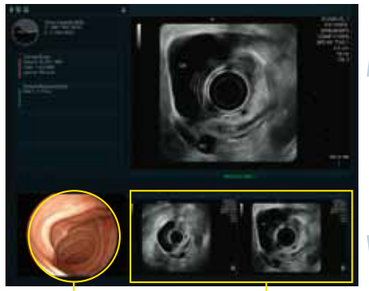
■User friendly interface

Keyboard has excellent easy-to-use interface

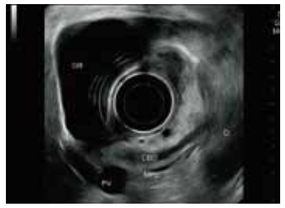
Easy-to-use keyboard has a trackball in the center. A simple operation allows quick switching between endoscopic and ultrasonic images as needed.

Flexible image display and switching

Keyboard operation facilitates smooth examinations and allows switching among an ultrasonic image, an endoscopic image, and a PinP image with patient's history images.



Picture in Picture Image　Patient's History Image



Ultrasonic Image

Endoscopic Image

■Date storage function

Compact Flash (CF) card slot

Images during examinations are stored directly on a CF card.

※Compact Flash is a registered trademark of SanDisk Corporation.

Efficient one-cart system

Functions required for endoscopic ultrasonography are incorporated into a single cart. Easily transferred from one place to another in the hospital, this compact system contributes to efficient examinations.

Ultrasonic endoscope with excellent maneuverability and insertion capability

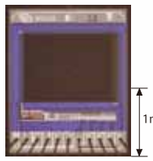
The integration of FUJIFILM's proprietary videoendoscope technology and advanced ultrasonic technology result in high-resolution and prominent observation performance.

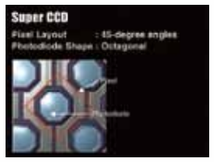
In pursuit of balloon maneuverability

An air/water and suction button delivers water into the balloon and suctions the water from the balloon, improving maneuverability.

High-resolution, ultra-small, Super CCD Honeycom

Equipped with the ultra-small, Super CCD Honeycom, this ultrasonic endoscope offers bright, vivid, high-resolution images.

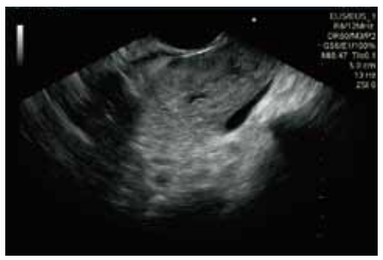




Ultra-small Super CCD Honeycom

High-quality image

ZONE Sonography™ technology and Sound Speed Correction technology allows delineation of sharp ultrasonic images of premium quality.

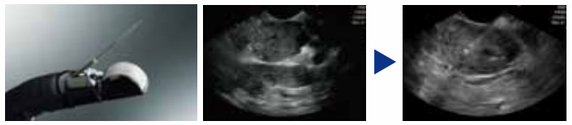


Excellent insertion capability supported by flexible insertion shaft

Newly designed structure of flexible portion improves insertion capability. The flexible portion is designed for endoscopic ultrasonography. The tip with a small bending radius allows observation of previously inaccessible sites.

Consideration of the safety of fine needle aspiration

Dotted green guidelines are visualized on the monitor to ensure the safety of paracentesis.



Radial Scan Ultrasonic Video Endoscope

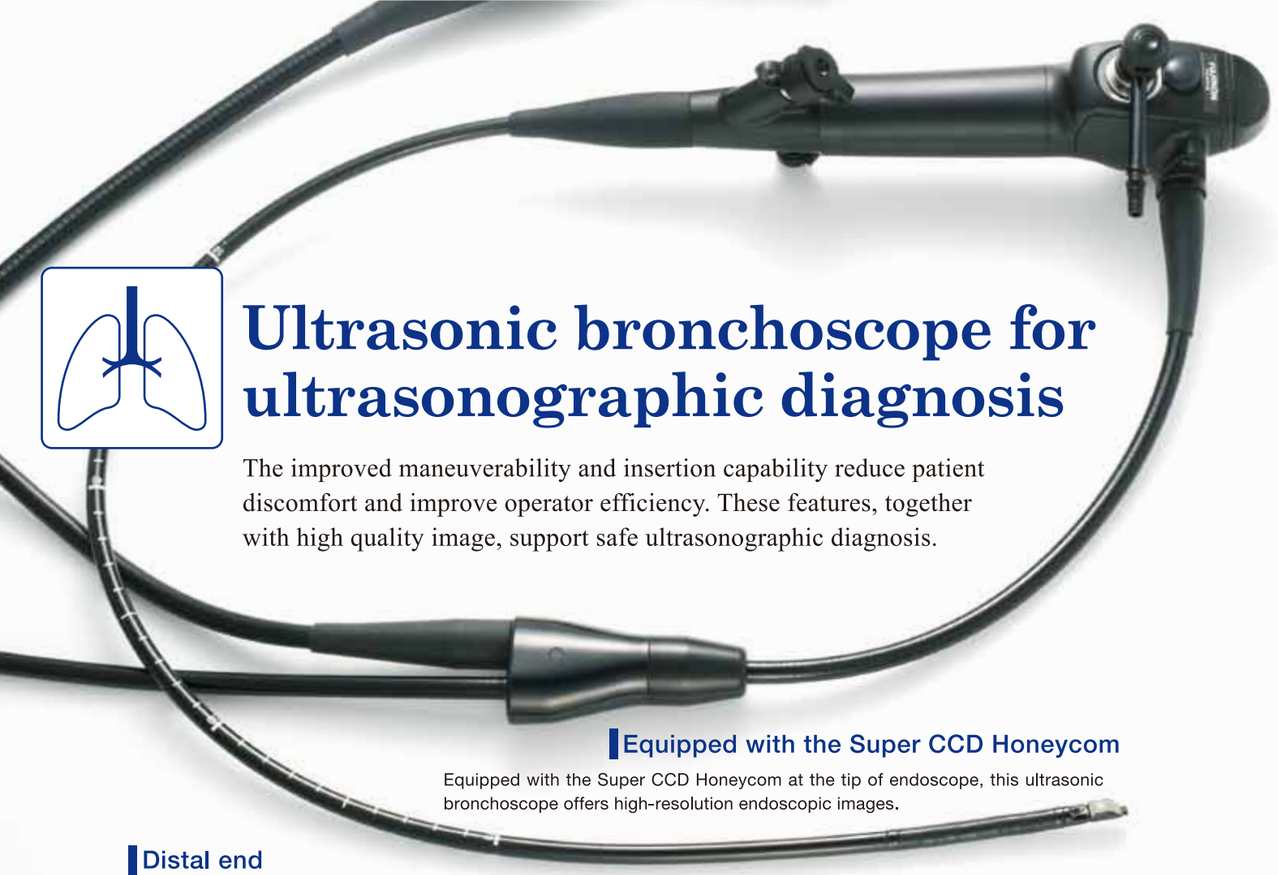
EG-530UR2

Characterized by a small outer diameter of 11.4 mm, excellent bending capabilities, and forward view of 140°, this scope allows physicians to perform endoscopic ultrasonography in the same way as conventional endoscopy. The tip with a small bending radius allows observation of sites inaccessible to conventional echoendoscopes.

Convex Scan Ultrasonic Video Endoscope

EG-530UT2

This scope has a large forceps channel (3.8 mm in diameter) that permits passage of therapeutic devices, such as a puncture needle and a drainage tube. With excellent bending capabilities, the scope provides smooth access to lesions for treatment. The large forceps channel and forceps elevator can be used in a variety of treatments.



Ultrasonic bronchoscope for ultrasonographic diagnosis

The improved maneuverability and insertion capability reduce patient discomfort and improve operator efficiency. These features, together with high quality image, support safe ultrasonographic diagnosis.

Equipped with the Super CCD Honeycom

Equipped with the Super CCD Honeycom at the tip of endoscope, this ultrasonic bronchoscope offers high-resolution endoscopic images.

Distal end outer diameter of 6.7 mm

The ultra-slim endoscope with a distal end outer diameter of 6.7 mm reduces patient discomfort and improves maneuverability and insertion capability.

Multilateral approaches to improving maneuverability

Full support for observation, diagnosis, and treatment of lesions and tissue collection in the bronchial region. Multilateral efforts improve maneuverability for safer diagnoses.

- **Paracentesis while constantly monitoring the position of the needle with 10° forward oblique view**

The use of the 10° forward oblique view and optimal positioning of the ultrasonic transducer improve maneuverability and safety during paracentesis. The opening of the forceps channel is constantly displayed in an endoscopic image to help locate the puncture needle.

- **Two lights to support paracentesis**

Two lights on opposite sides illuminate the front and eliminate shadows during paracentesis. An appropriate needle angle facilitates smooth paracentesis at the target site.

- **Appropriate bending angle for easy paracentesis**

A large bending angle facilitates paracentesis at the target site.

Convex Scan Ultrasonic Video Broncho Endoscope

EB-530US

With a distal end outer diameter of 6.7 mm and the Super CCD Honeycom, this scope offers high-resolution endoscopic images for safer insertion and diagnosis and ensures safety and operability during paracentesis.

Ultrasonic probes in a broad range of frequencies

In order to improve examination efficiency and diagnostic capability during ultrasonographic diagnosis, FUJIFILM developed a small, high-performance, user-friendly system.

Sonoprobe System

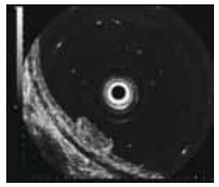
SP702

Ultrasonography performed any time during routine endoscopy

Ultrasonographic examination of the region of interest is easily and quickly performed during endoscope examination in a way similar to that of a biopsy.

Clear images without rotation irregularities

Shortening of the distal rigid portion and optimization of the inner structure ensures clear images without rotation irregularities even when the endoscope is bent.



The small control pad can easily display a specific image

The cine memory function allows retrieval of any image within 2.5 seconds before freezing, eliminating concern about the timing of freezing.

Remote control of the Sonoprobe System SP702

The SU-8000 keyboard controls ultrasonic images generated by SP702.

Small, lightweight system with improved installation performance

This small, lightweight system can be a stand-alone system or set in an existing endoscopy system.

Ultrasonic Processor SU-8000 Specifications

Power supply	AC120V	AC230V
	60Hz	50Hz
	2.2A	1.4A
Current consumption (rated)	1.8A	1.2A
Applicable SCOPES	EG-530U series scope	
	EB-530U series scope	
Video output terminal	Video terminal (1 channel)	
	S video terminal (1 channel)	
	RGB PC terminal (1 channel)	
	RGB PC/TV terminal (1 channel)	
	DVI image input terminal (1 channel)	
	HD-SDI terminal (2 channels)	
Audio output terminal	RCA terminal (1 channel)	
Video input terminal	DVI image input terminal (1 channel)	
	S video terminal (PROCESSOR) (1 channel)	
	S video terminal (SP702) (1 channel)	

Control terminal		Remote terminal (2 channels)
		Foot Switch terminal (1 channel)
		Keyboard terminal (1 channel)
		RS232C terminal (PROCESSOR) (1 channel)
		RS232C terminal (SP702) (1 channel)
	Network terminal (1 channel)	Ethernet(100BaseTX)
Image storage	Storage	CF memory card, networked shared folder (FTP, DICOM)
	File format	TIFF, JPEG
External dimension (W×H×D)		375×215×445mm (including protruding parts)
Weight		14kg

Generic Name : Ultrasound system, imaging, general-purpose

Ultrasonic Video Endoscopes Specifications

■EG-530UR2

Endoscopic functions	Model	EG-530UR2
	Viewing direction	0°
	Observation range	3 to 100 mm
	Field of view	140°
	Distal end diameter	11.4 mm
	Flexible portion diameter	11.5 mm
	Bending capability	UP/DOWN 180°/90°
		LEFT/RIGHT 100°/100°
	Forceps channel diameter	2.2 mm
	Working length	1250 mm
	Overall length	1550 mm
Ultrasonic functions	Scanning mode	Color Doppler,Power Doppler, Pulse wave,B mode,M mode
	Scanning method	Electronic radial scan
	Scanning angle	360°
	Frequency	5 MHz/7.5 MHz/10 MHz/12 MHz

Generic Name : Gastroduodenoscope, flexible,ultrasonic

■EG-530UT2

Endoscopic functions	Model	EG-530UT2
	Viewing direction	40° (Forward Oblique)
	Observation range	3 to 100 mm
	Field of view	140°
	Distal end diameter	13.9 mm
	Flexible portion diameter	12.1 mm
	Bending capability	UP/DOWN 160°/160°
		LEFT/RIGHT 120°/120°
	Forceps channel diameter	3.8 mm
	Working length	1250 mm
	Overall length	1550 mm
Ultrasonic functions	Scanning mode	Color Doppler,Power Doppler, Pulse wave,B mode,M mode
	Scanning method	Electronic convex scanning method
	Scanning angle	110° (Combination with SU-7000)
		124° (Combination with SU-8000)
	Frequency	5 MHz/7.5 MHz/10 MHz/12 MHz

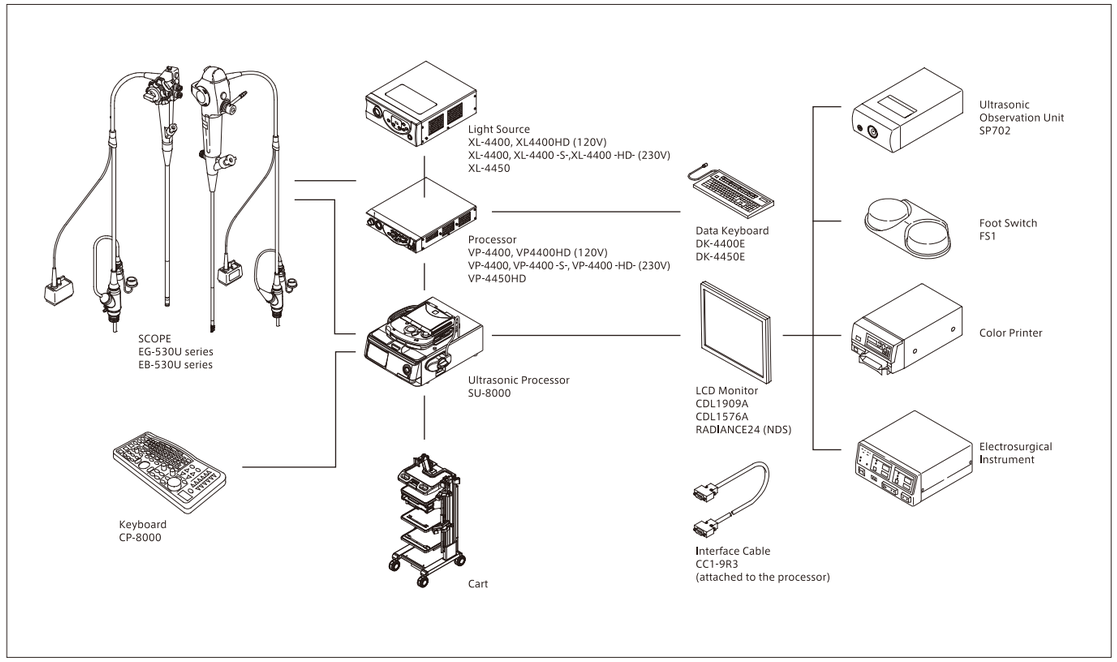
Generic Name : Gastroduodenoscope, flexible,ultrasonic

■EB-530US

Endoscopic functions	Model	EB-530US
	Viewing direction	10° (Forward Oblique)
	Observation range	3 to 100 mm
	Field of view	120°
	Distal end diameter	6.7 mm
	Flexible portion diameter	6.3 mm
	Bending capability(UP/DOWN)	130° /90°
	Forceps channel diameter	2.0 mm
	Working length	610 mm
	Overall length	880 mm
Ultrasonic functions	Scanning mode	Color Doppler,Power Doppler, Pulse wave,B mode,M mode
	Scanning method	Electronic convex scanning method
	Scanning angle	60°(Combination with SU-7000)
		65 °(Combination with SU-8000)
	Frequency	5 MHz/7.5 MHz/10 MHz/12 MHz

Generic Name : Bronchoscope, flexible, ultrasound

Sonart System Configuration



Sonoprobe Processor SP702 Specifications

Video system	NTSC/PAL
Power requirements	120V or 230V
Consumption	0.8A(120V) 0.5A(230V)
Display Mode	B mode
Scanning Mode	Mechanical Radial

Scanning Range	20-120mm 360°
Usable Frequencies	7.5MHz,12MHz,15MHz,20MHz,25MHz
Dimensions(W×H×D)	188mm×102mm×443mm
Weight	6.5kg

Generic Name : Ultrasound system, imaging, general-purpose

Model Name	Working Length	Outer Diameter	Frequency
P2625-M	M Type 2120mm	2.6mm	25MHz
P2620-M			20MHz
P2615-M			15MHz
P2612-M			12MHz
P2020-M		2.0mm	20MHz
P2015-M			15MHz
P2012-M			12MHz
P2620-L	L Type 2620mm	2.6mm	20MHz
P2615-L			15MHz
P2612-L			12MHz

Generic Name : Transducer assembly, ultrasound, diagnostic, intracorporeal,surgical

■Miniature Probe