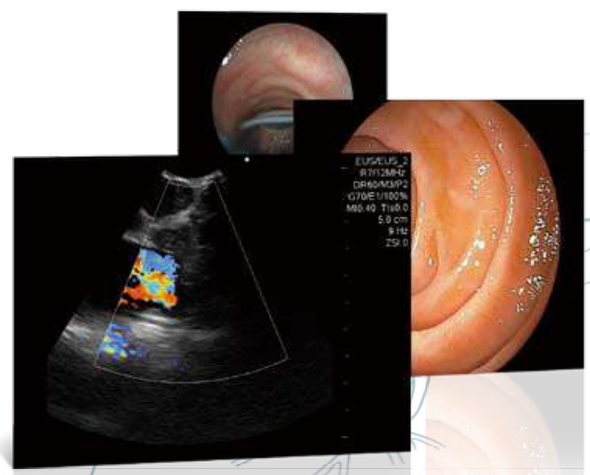
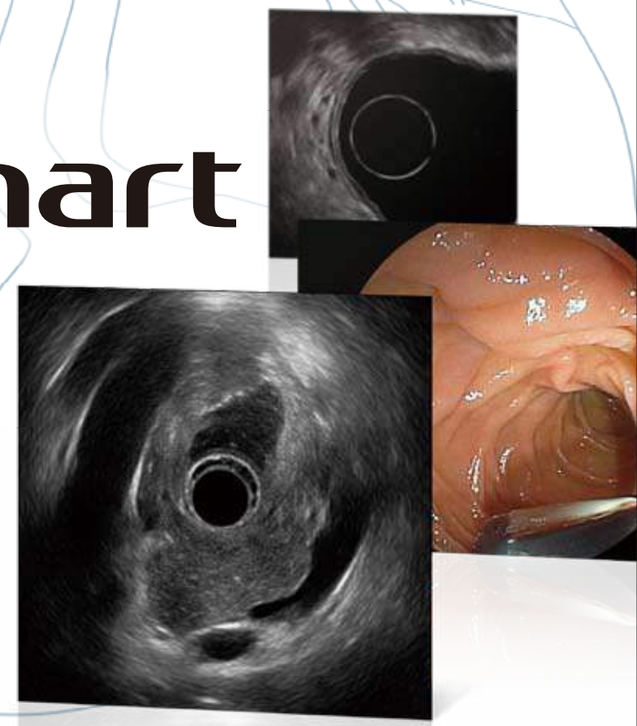
FUJIFILM



Sonart



New FUJIFILM Endoscopic Ultrasonography System

FUJIFILM

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http://www.fujifilm.com/products/medical/endoscopy/contact/

SGE-107-00

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 examination 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 Honeycomb, the system delivers high-resolution endoscopic images and high quality ultrasound 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 ultrasound bronchoscope and miniprobe system.

SU-8000, an ultrasound processor with high quality image

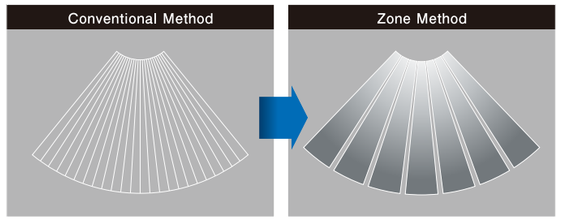
Equip with ZONE Sonography™ technology and Sound Speed Correction technology, The SU-8000 produces high quality images. This compact, one-cart system facilitates endoscopic ultrasonography.

■High quality image

ZONE Sonography™ technology ensures high quality images.

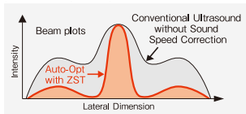
● ZONE Sonography™ technology is based on an innovative idea

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.



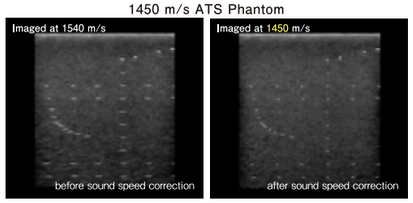
● Sound Speed Correction technology improves image resolution

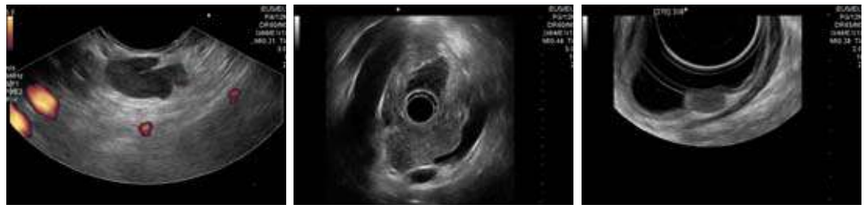
Advanced image processing technology estimates the optimal speed of ultrasound traveling through the body (sound speed) and constructs images.



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





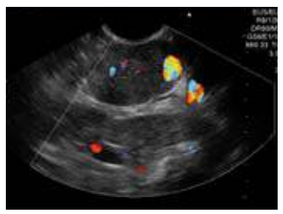
Display quality images in different modes.

Technologies developed in the field of ultrasonographic diagnosis improve the quality of ultrasound 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.

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.

Ultrasound Processor
SU-8000 NEW

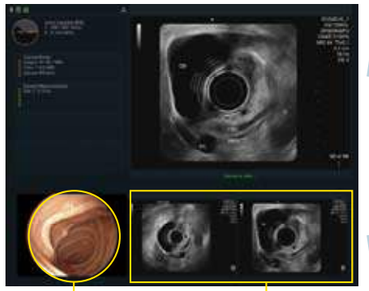
■User friendly interface

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 ultrasound images as needed.

Flexible image display and switching.

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



Picture in Picture Image　Patient's History Image

Ultrasound Image

Endoscopic Image

■Date storage function

Compact Flash (CF) card slot.

Images during examination 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.

Ultrasound endoscope with excellent maneuverability and insertion capability

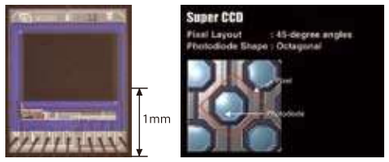
The integration of FUJIFILM's proprietary videoendoscope technology and advanced ultrasound technology result in high-resolution and prominent observation performance.

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 Honeycomb.

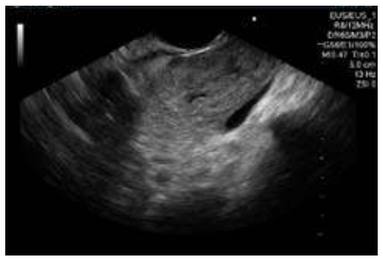
Equipped with the ultra-small, Super CCD Honeycomb, this ultrasound endoscope offers bright, vivid, high-resolution images.



Ultra-small Super CCD Honeycomb.

High-quality image.

ZONE Sonography™ technology and Sound Speed Correction technology allows delineation of sharp ultrasound 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 Ultrasound Video Endoscope

EG-530UR2 NEW

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 Ultrasound Video Endoscope

EG-530UT2 NEW

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.

Ultrasound 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 Honeycomb.

Equipped with the Super CCD Honeycomb at the tip of endoscope, this ultrasound 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 ultrasound 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.

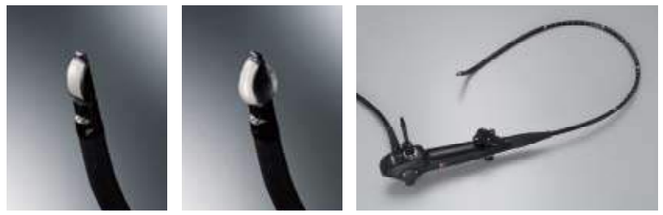
- **Appropriate bending angle for easy paracentesis**

A large bending angle facilitates paracentesis at the target site.

Convex Scan Ultrasound Video Broncho Endoscope

EB-530US NEW

With a distal end outer diameter of 6.7 mm and the Super CCD Honeycomb, 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

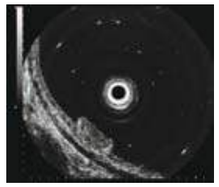
SP702

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 ultrasound images generated by SP702.

Small, lightweight system with improved installation performance.

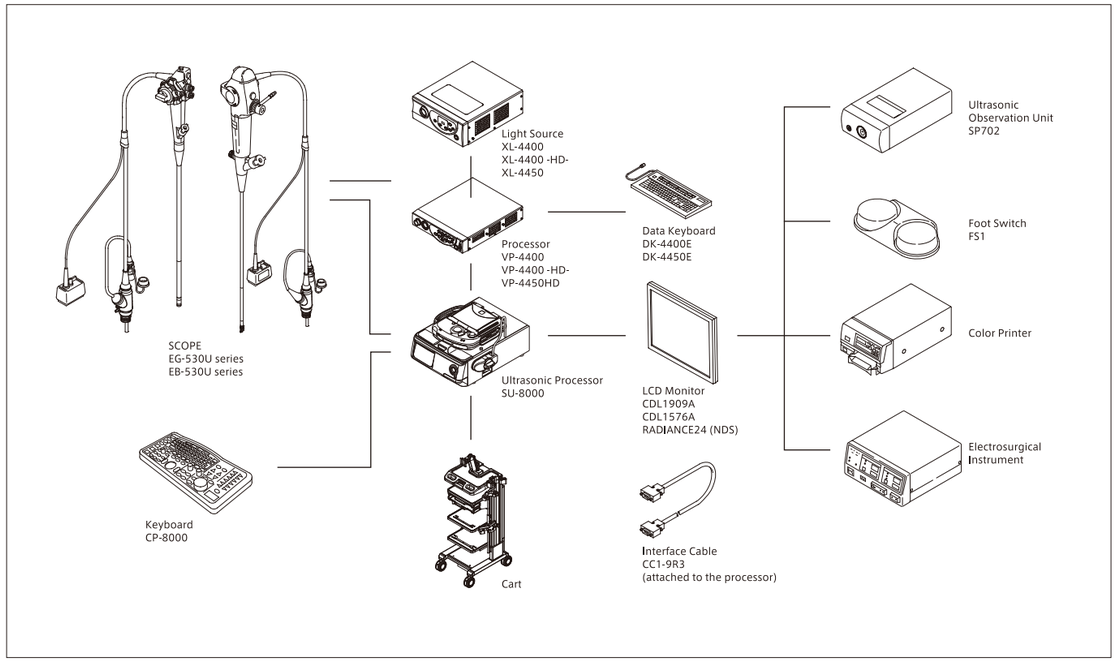
This small, lightweight system can be a stand-alone system or set in an existing endoscopy system.

Ultrasound Processor SU-8000 Specifications

Power supply	AC230V
	50Hz
	1.4A
Current consumption (rated)	1.2A
Applicable SCOPE	EG-530U series scope
	EB-530U series scope
Video output terminal	Video terminal (1 channel)
	S video termnal (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		12.5kg

Sonart System Configuration



Ultrasound Video Endoscopes Specifications

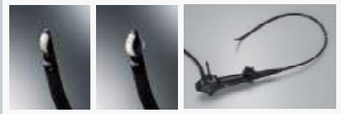
■EG-530UR2

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

■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

■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°
	Frequency	5 MHz/7.5 MHz/10 MHz/12 MHz

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

■Miniature Probe

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

■Front Loading Probe

Model Name	Working Length	Outer Diameter	Frequency
P2620-L	L Type 2620mm	2.6mm	20MHz
P2615-L			15MHz
P2612-L			12MHz