A Compact, High-Performance Ultrasound System That Enables Endoscopic Ultrasonography With Convenient Ultrasonic Probes

Endoscopic Ultrasound Center
EU-M30S
Physicians around the world are fast becoming aware of the enormous potential inherent in endoscopic ultrasonography, or EUS. An indispensable prerequisite to endoscopic mucosal resection, widespread use of EUS techniques is hampered only by its cost and inconvenience. Now there's a solution. The EU-M30S Endoscopic Ultrasound Center from Olympus. Drawing on our leadership in the production of endoscopes and related equipment as well as our expanding expertise in the manufacture of Endo-Therapy accessories, Olympus has created a compact, convenient EUS system that includes a versatile line of ultrasonic probes, enabling physicians to take advantage of all the benefits of EUS without the expense of a full system upgrade. No special endoscopes are required. Simply pass the probe through the channel of an endoscope you already have — the same way as you would a biopsy forceps — and you'll get the high-quality ultrasound images you need for advanced diagnosis. Available exclusively from Olympus, this system allows you to make EUS part of your routine examinations. You’ll find it ideal for gastrointestinal endoscopic procedures such as Barrett’s esophagus as well as for a wide variety of bronchoscopic procedures.

### High-Performance Features for Maximum EUS Effects

- **Convenient probe design**  
  Especially designed for use with ultrasonic probes, the EU-M30S makes EUS procedures much simpler. Simply insert a probe into the channel of a routine scope.
- **Compact design with 50% reduction in volume**  
  Designed to give you more room to work, the EU-M30S measures a mere 295 mm in width while its volume has been reduced by 50% compared to its predecessor.
- **Dedicated cart for optimal mobility**  
  An exclusive cart custom-designed for the EU-M30S and its ancillary equipment provides excellent mobility and features an adjustable-angle monitor table for comfortable observation.
- **Easy operation**  
  The EU-M30S’s keyboard incorporates a trackball for easier operation and also comes with a scroll key to allow the desired view to be quickly displayed. There’s also a preset function that lets you store selected image quality settings and activate them at any time during observation. A collapsible supporting arm holds the probe driving unit securely in any required position.
- **Image quality adjustable in 4 steps**  
  Built-in image processing technology lets you adjust ultrasound image quality to suit your requirements. Choose from four settings — NORMAL, 5, L2, and L1 — from images that stress gradation to images that are sharper and crisper.
- **Effective 3-cm range now available**  
  A 3-cm range ideal for ultrasound probe observation has been added to the display magnification range. Now any of 7 steps — 1, 2, 3, 4, 6, 9, and 12 — can be selected at the touch of a key.
- **Image quality selection possible in freeze mode**  
  Even when an ultrasound image is frozen, image quality adjustments such as gain, contrast, and scroll are possible.
5. Range keys
Select the display magnification of the ultrasound image from 1, 2, 3, 4, 6, 9, and 12 centimeters at the touch of a button.

6. Gain adjustment keys
Adjust the intensity of the ultrasound image's echoes in 16 steps.

7. Contrast adjustment keys
Adjust the ultrasound image's contrast in 8 steps.

8. STC adjustment keys
Adjust the intensity of ultrasound echoes at each depth. The keys are arranged in 4 pairs according to the observation direction.

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Select the display magnification of the ultrasound image from 1, 2, 3, 4, 6, 9, and 12 centimeters at the touch of a button.

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Adjust the intensity of the ultrasound image's echoes in 16 steps.

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Adjust the ultrasound image's contrast in 8 steps.

8. STC adjustment keys
Adjust the intensity of ultrasound echoes at each depth. The keys are arranged in 4 pairs according to the observation direction.

9. Image key
Adjusts the ultrasound image quality in 4 steps using post-processing.

10. Preset key
Activates the image quality settings selected with the preset function.

11. Menu key
Displays the menu screen.

12. Caliper keys
Use to measure the distance without opening the menu screen.

13. Enter key
Determines the selection in measurement.

14. Release key
Sends a print queue to the connected black-and-white printer.

15. Freeze key
Freezes the ultrasound image on the monitor.

16. Clear key
Deletes comments and measurement results.

17. Monitor key
Switches the monitor display between the endoscopic image and ultrasound image.

18. Examination end key
Deletes all patient ID data, comments, measurement results, and marks that have been entered.

19. ID key
Press before entering patient ID data.

20. Comment key
Press before entering a comment on the ultrasound image.

21. Undo key
Restores items just deleted.

22. Carriage return key
Select to store image quality settings for immediate recall whenever required.

Select to change the date and time and to enter the name of a medical facility.

Select to set the arrow cursor and other functions.

Ergonomically Designed Keyboard
With Wide Range Of Function Keys
Makes Operation Easier And More Comfortable

1. Image rotation key
Rotates the ultrasound image (64 steps/rotation).

2. Image direction key
Reverses the ultrasound image horizontally.

3. Scroll key
Scrolls the ultrasound image to display the area of interest.

4. Display key
Enables direct selection of the ultrasound image's display pattern from full circle, upper semicircle, and lower semicircle.

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Scrolls the ultrasound image to display the area of interest.

4. Display key
Enables direct selection of the ultrasound image's display pattern from full circle, upper semicircle, and lower semicircle.
Staging of cancer in terms of potential tumor involvement and spread

Presence/absence of lymph node metastasis

Decision on application of endoscopic mucosal resection

Analysis of depth and pathophysiology of submucosal ulcer

Staging of cancer in terms of potential tumor involvement and spread

Presence/absence of lymph node metastasis

Diagnosis of vascular infiltration and organ infiltration

Search for cause of bile duct dilatation

Diagnosis of malfusion of pancreatobiliary ducts

Differential diagnosis of tumor-forming pancreatitis

Search for cause of pancreatic duct dilatation

Staging of cancer in terms of potential tumor involvement and spread

Presence/absence of lymph node metastasis

Measurement of therapeutic effects of esophageal varices

Esophagus

Stomach

Common bile duct/Pancreatic ducts

Colon/Rectum

Trachea/Bronchi
UM-BS20-26R

Peripheral bronchi
UM-2R, UM-3R, UM-S20-20R & UM-S30-25R

From The Upper Or Lower Digestive Tract To The Tracheobronchial Tree, EUS With Ultrasound Probes Expands Your Diagnostic Possibilities

Typical application examples of EUS using ultrasonic probes

ESOPHAGUS

Staging of cancer in terms of potential tumor involvement and spread

Presence/absence of lymph node metastasis

Decision on application of endoscopic mucosal resection

Analysis of depth and pathophysiology of submucosal ulcer

STOMACH

Staging of cancer in terms of potential tumor involvement and spread

Presence/absence of lymph node metastasis

Diagnosis of vascular infiltration and organ infiltration

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COMMON BILE DUCT/PANCREATIC DUCTS

Staging of cancer in terms of potential tumor involvement and spread

Presence/absence of lymph node metastasis

Diagnosis of vascular infiltration and organ infiltration

Search for cause of bile duct dilatation

COLON/RECTUM

Staging of cancer in terms of potential tumor involvement and spread

Presence/absence of lymph node metastasis

Analysis of pathophysiology of inflammatory colon disease
Offering A Comprehensive Selection Of Frequencies And Diameters, Our Line Of Ultrasound Probes Can Answer All Your EUS Needs

**UM-2R/3R**

Easy Endoscopic Ultrasonography During Routine Examinations
- Usable with a scope with a channel diameter of 2.8 mm or more.
- The UM-2R provides 12 MHz while the UM-3R offers 20 MHz for more detailed ultrasound imaging.
- Can also be used with MH-246R balloon sheath.

**UM-G20-29R**

Improved Insertion Capability Into The Common Bile Duct And Pancreatic Ducts
- Easy insertion even into strictures of the common bile duct and pancreatic ducts.
- 2.9 mm maximum diameter insertion tube.
- Usable with a scope with a channel diameter of 3.2 mm or more.

**UM-S20-20R**

Narrow 1.7 mm Insertion Tube Diameter For Superior Insertion Capability Into The Common Bile Duct And Pancreatic Ducts
- Ultra-narrow insertion tube design achieves easier insertion into the common bile duct and pancreatic ducts.
- The insertion tube diameter measures 1.7 mm at minimum and 2.0 mm at maximum.
- Usable with a bronchoscope with a 2.0 mm diameter channel.
- Can also be used with MH-246R balloon sheath.

**UM-BS20-26R**

Balloon-Equipped Ultrasonic Probe That Can Be Inserted Into A Routine Scope
- Balloon method makes possible easy delineation of ultrasound images even at sites where it is hard to retain deaerated water.
- 2.6 mm insertion tube maximum diameter for insertion into a routine scope with a channel diameter of 2.8 mm or more.
- Caution: The balloon contains natural rubber latex which may cause allergic reactions.

**UM-S30-25R**

30 MHz High-Frequency Output Ideal For Examination Of Surface Layers
- High-frequency capability at 30 MHz achieves sharp, detailed ultrasound imaging.
- Dramatic improvement in visualization capability at shallow layers.
- Can also be used with MH-246R balloon sheath.

**RU-75M-R1/RU-12M-R1**

RIgid Probe Design Facilitates EUS In The Rectum And Anus
- 7.5 MHz with great imaging depth and 12 MHz suitable for surface layer examination are available.
- Superior insertion capability with a narrow-diameter distal end.
- Usable in combination with conventional ultrasound systems.
**System Chart**

- **Probe driving unit (MAJ-643)**
- **Foot switch (MAJ-679)**
- **RGB cable (MAJ-680)**
- **Supporting arm (MAJ-682)**
- **Endoscopic ultrasound center (EU-M30S)**
- **Trolley (TU-61)**
- **Isolation transformer**

**Specifications of Probes**

<table>
<thead>
<tr>
<th>Model</th>
<th>Frequency</th>
<th>Scanning Method</th>
<th>Working Length</th>
<th>Total Length</th>
<th>Insertion Tube Outer Diameter</th>
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<tbody>
<tr>
<td>UM-3R</td>
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**Specifications of Probes "WITH/WITHOUT" Balloon Sheath**

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**Power Requirements**

- **Voltage usage:** 7.5, 12, 20, 30 MHz
- **50/60Hz**
- **±10%**
- **±1%**

**Classification (Medical Electrical Equipment)**

- **Power Requirements**
  - **Ancillary Equipment**
  - **Monitor Observation**
  - **Signal Processing**
  - **Measurement**
  - **Display**
  - **Others**
  - **Foot switch:** 1.5kg
  - **Keyboard:** 1.2kg
  - **Main unit:** 10kg
  - **Foot switch:** 220mm (W)
  - **Keyboard:** 296mm (W)
  - **Main unit:** 295mm (W)

**Specifications of EU-M30S**

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**EU-M30S should be kept away from the zone of flammable gases.**
Endoscopic Ultrasound Center EU-M30S