

## ENDOSCOPIC ULTRASOUND CENTER OLYMPUS EU-ME3

# ELST (Elastography)

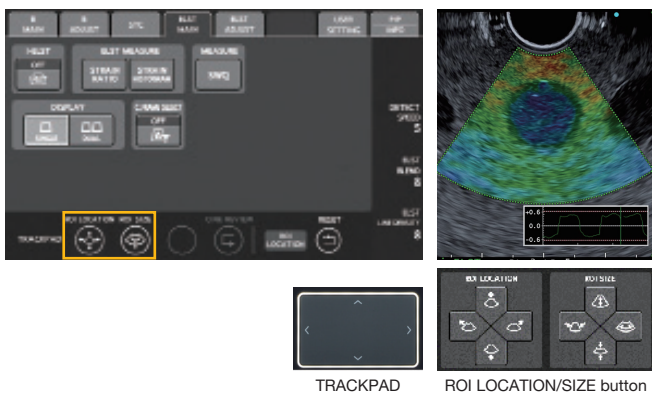
### ELST Operations

ELST visualizes the amount of strain in the tissue during compression and retraction, making it possible to obtain more information about tissue stiffness.



1. Press ELST key and the mode is switched to ELST mode.
2. Adjust the size and location of ROI so the target is within ROI.

### ROI Adjustment by Trackpad



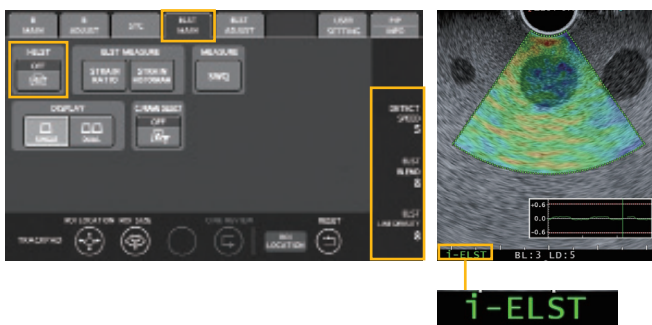
Press the ROI LOCATION/SIZE button in the TRACKPAD section.

The selected button changes to blue and appears in the TRACKPAD ASSIGNMENT DISPLAY.

Swiping the trackpad will change the ROI location/size.

\* The ROI location/size can also be moved by pressing a ROI location/size button, which is default off but can be turned on via system settings.

### Adjusting image quality of the ELST mode image



#### i-ELST

i-ELST is effective in displaying elasticity even if the displacement caused by pulsation in the living body is weak. i-ELST button switches the function on or off.

\* This is turned on by default.

#### ELST LINE DENSITY

This adjusts the line density of the B mode image and the ELST image.

\* Increasing ELST line density improves the resolution, and decreasing it improves the frame rate.

#### ELST BLEND

This adjusts the transparency of the elasticity image overlaid on the B mode image.

#### DETECTION SPEED

This adjusts the frequency at which the elasticity image is updated.

## Adjusting image processing of the ELST mode image



### FRAME REJECTION

This adjusts the level of frame rejection in elasticity images where a great deal of noise is present.

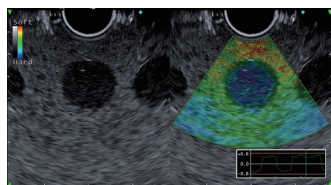
### ELST SMOOTHING

This adjusts the level of image processing used to improve the connection between ELST images in order to smooth them.

### ELST PERSISTENCE

This adjusts the level of image processing used to improve the correlation processing between ELST image frames in order to smooth images.

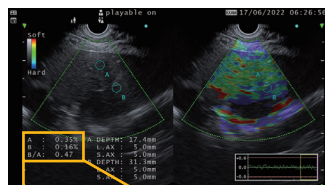
## Strain Ratio Measurement



1. Set the ROI for ELST in the location for displaying the elasticity image.



2. Press the STRAIN RATIO button on the ELST main screen.

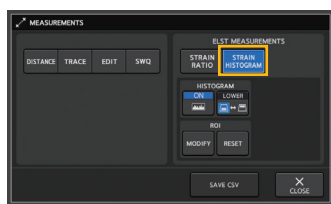


3. The strain ratio measurement ROI appears.  
4. Swipe the trackpad and move the ROI.  
5. Press the SET key or tap the trackpad to set the location of ROI A.

6. Repeat steps 3-5 to set the location of ROI B.  
7. The strain ratio between ROI A and B are displayed in the measurement display area.

\* The location and size of the ROI can be adjusted after measurement.

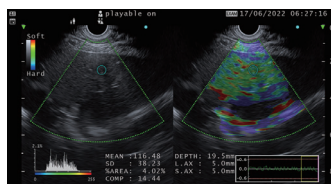
## Display the Strain Histogram



Displays a frequency distribution graph for strain in the set area.

The following items are displayed in the case of strain histogram measurement:

- MEAN : Relative strain mean
- SD : Relative strain standard deviation
- %AREA : Area ratio of low strain area
- COMP : Complexity of the shape of low strain area



The following additional items related to ROI for strain histogram measurement can also be displayed with user settings:

- DEPTH : Center depth
- L.AX : Long axis length
- S.AX : Short axis length\*

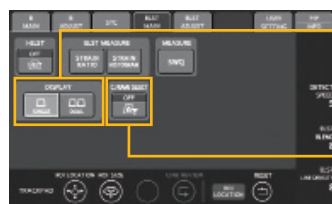
\* The location and size of the ROI can be adjusted after measurement.

## Other Functions



### AUTO CINE REVIEW

Turns repeat playback of the cine review images in the set sector on or off.



### DISPLAY

This switches between single (SINGLE) and dual-screen display (DUAL).

### C.FRAME SELECT

Selects the image for cine memory playback when the strain graph is displayed.

ON: Only the colored frames are played back using cine memory playback.

OFF: All the frames are played back using cine memory playback.

### Disclaimer

This sheet is for quick reference only. Please refer to the relevant User's Manual(s) for instructions, warnings and cautions. Nothing in this presentation is meant to supersede or replace the instructions for use applicable to each specific device, or the processes and procedures in place at your facility. Quick Reference Guide is only for trained health care professionals.

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