SAMSUNG

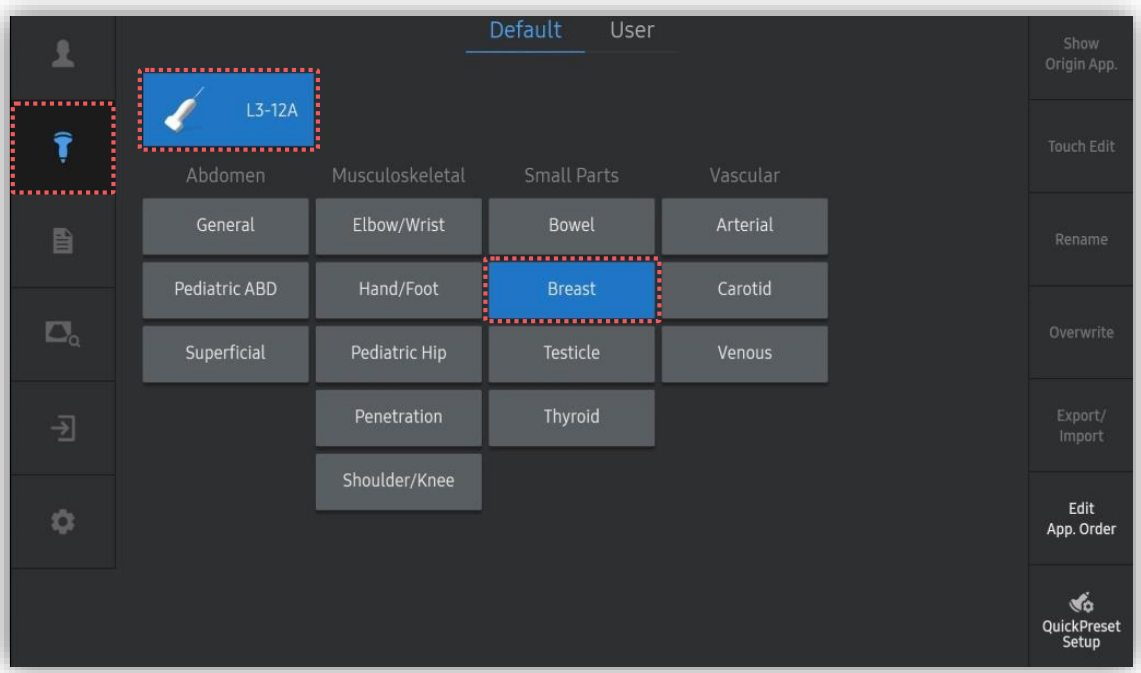
E-Breast™

HERA W10 **Quick Guide**

Produced by Clinical Training Center / SAMSUNG MEDISON CO.,LTD

E-Breast™

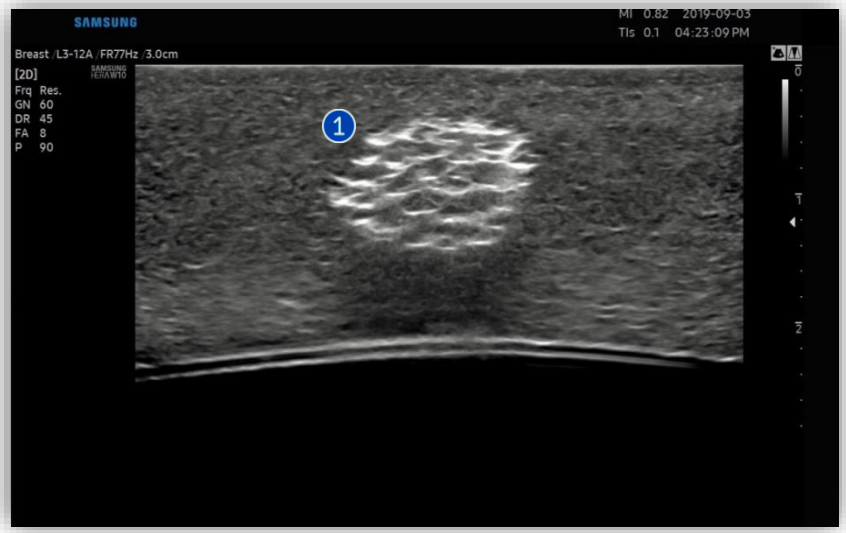
1. Probe and Preset



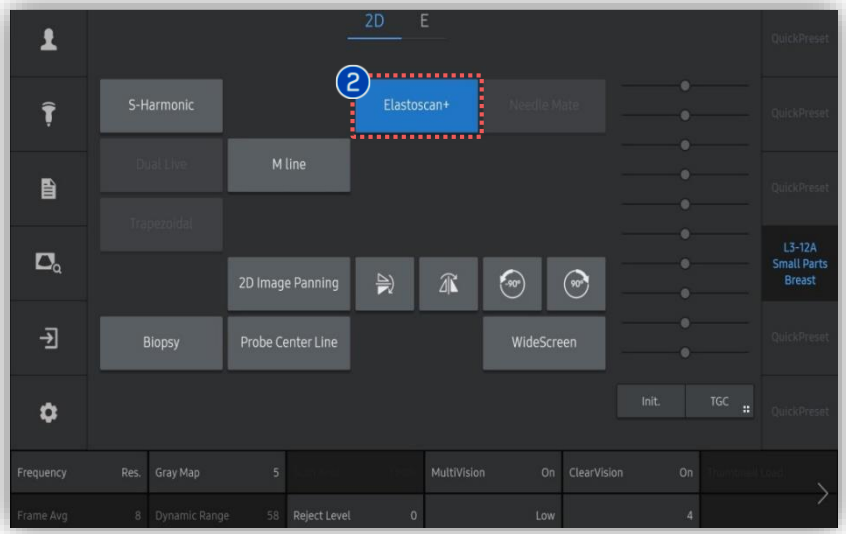
※ E-Breast™ can be operated under the following conditions :

Probe	Application
L3-12A LA2-9A LA2-14A LA4-18B	Small Parts (Breast)

2. Start ElastoScan+



1	Scan	Scan the suspicious lesions in the breast.



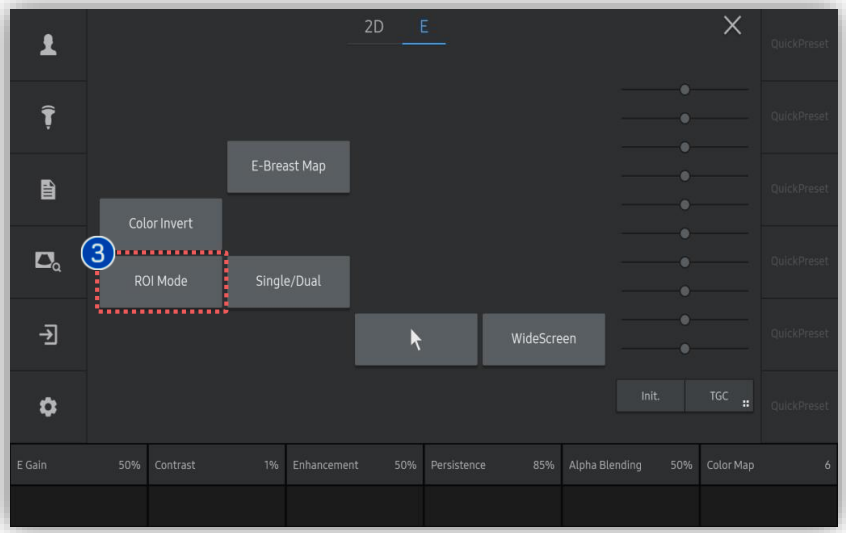
2	Elastoscan+	Tap [Elastoscan+] button on the touch screen to start E-Breast.

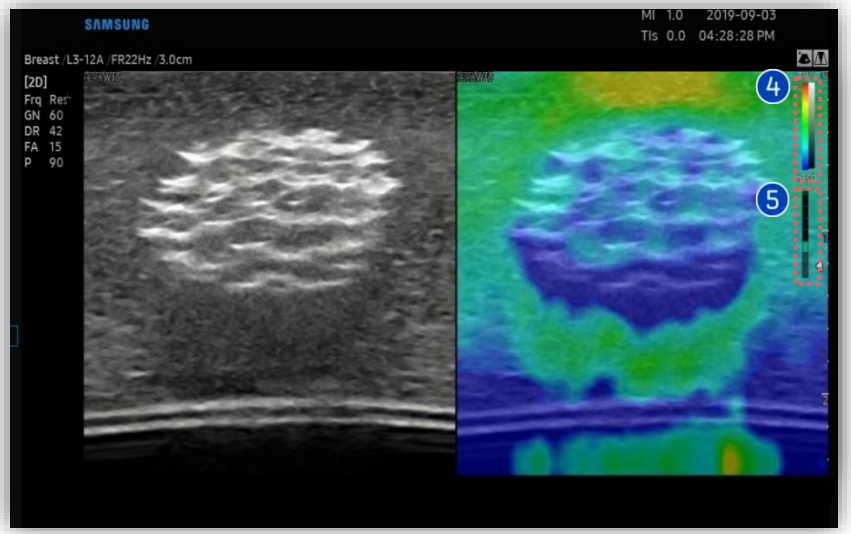
★ Tips

E-Breast™ is a tool to measure strain based on a 1 ROI method.
To access E-Breast™, [ROI Mode] should be turned off (before freezing the E-Breast image).

E-Breast™

3. Indicators of ElastoScan+





❸ ROI mode	Deselect [ROI Mode] before accessing [E-Breast].
❹ Color bar	The Elastoscan color bar represents stiffness of tissues. The color map can be changed. There are 7 color map options.
❺ Compression guide bar	Apply gentle compressions with the probe while imaging the breast. Capture the image when compression guide bar is between Step 3 and 7. (indicates appropriate pressure).

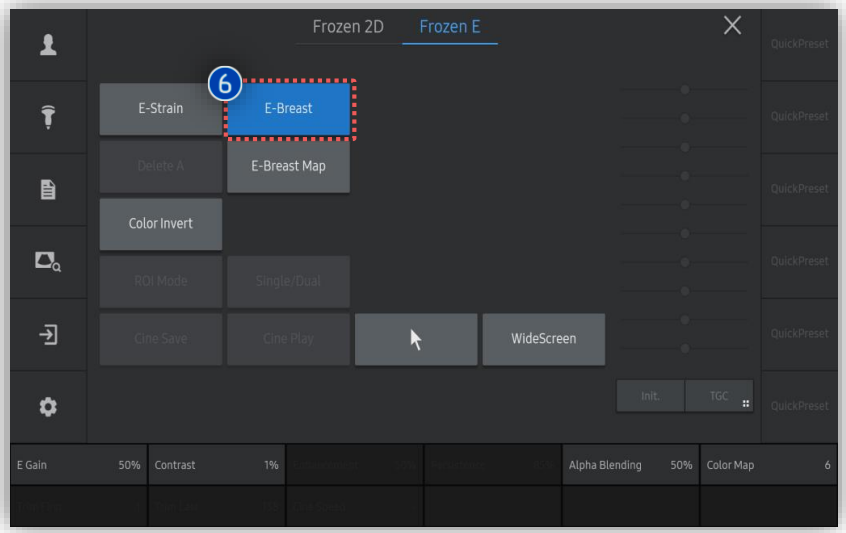
★Tips

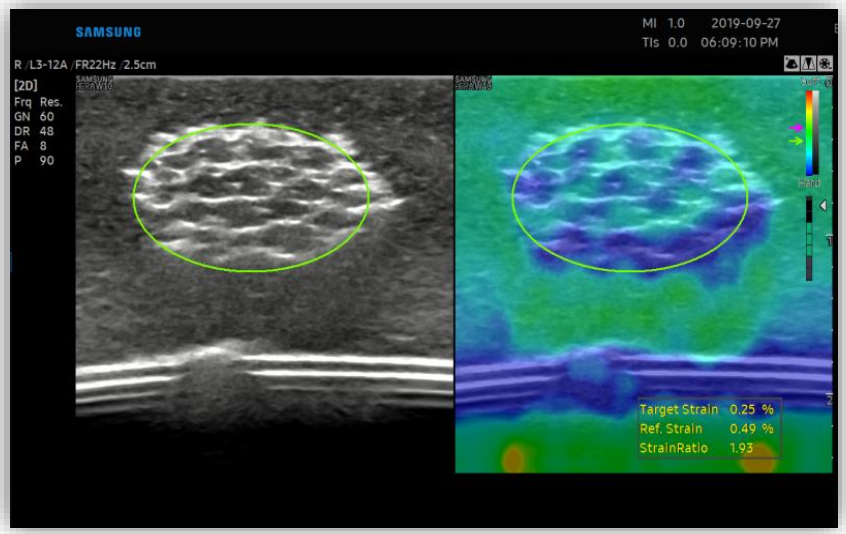
Compression guide bar:

- Step 0 : The probe is almost stationary.
- Step 1 - Step 2 : There is not enough pressure.
- Step 3 - Step 7 : There is appropriate pressure.

E-Breast™

4. Set ROI for Strain Ratio Calculation





❻ E-Breast	After the image is frozen, select [E-Breast] on the touch screen. The ROI circle will then be displayed on the Elastoscan image.

★Tips

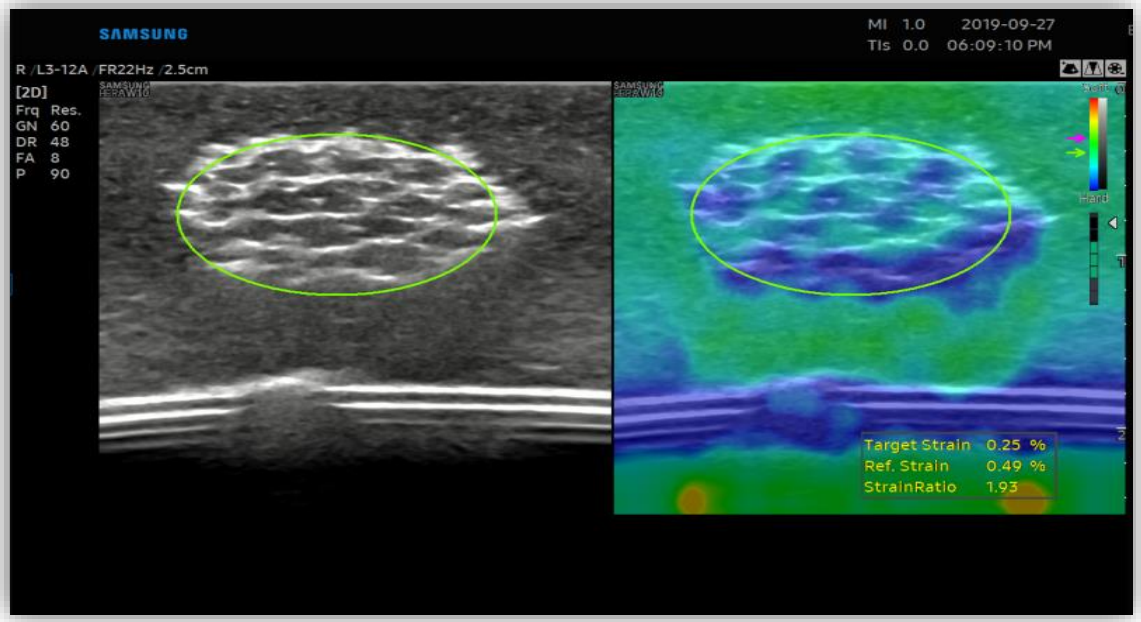
If ROI Mode is on, [E-Breast] button will not appear on the touch screen.

❼ Place the ROI	Place the ROI on the suspicious area and press [Set] button on the control panel. If necessary, adjust the position and size of the ROI with the trackball.
❽ Results	After pressing [Set] button, the Target strain, Reference strain and Strain ratio are automatically calculated and displayed on the image. The results displayed may vary according to the regulatory approval status of each country.

★Tips

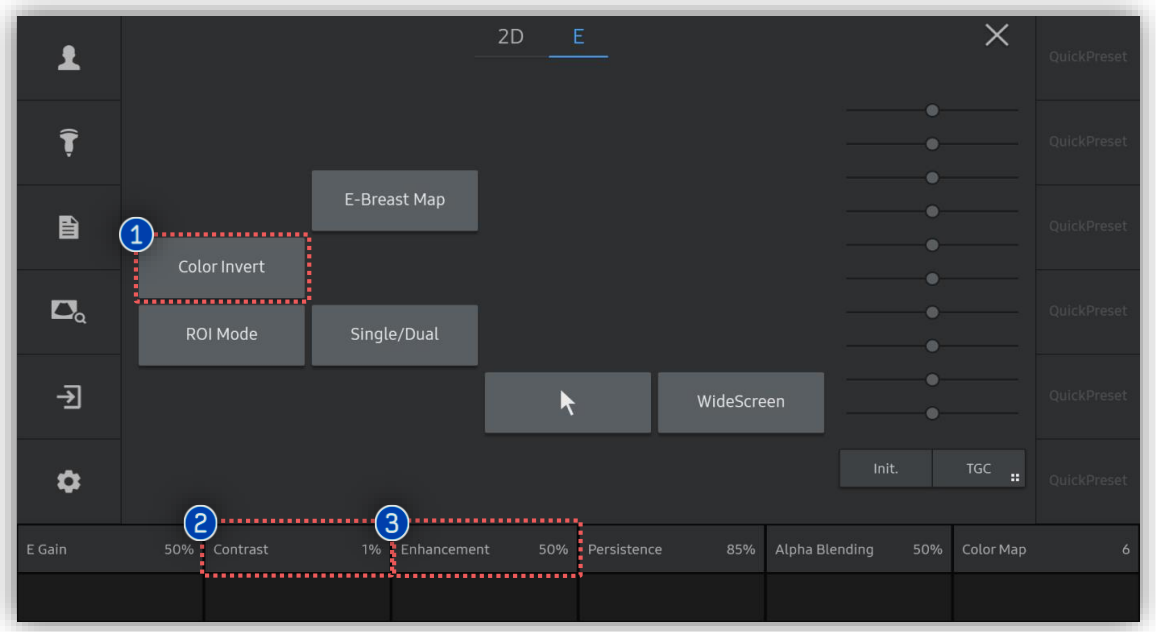
When placing the ROI on the 2D image, adjust it tightly to the lesion.

5. Result of E-Breast™



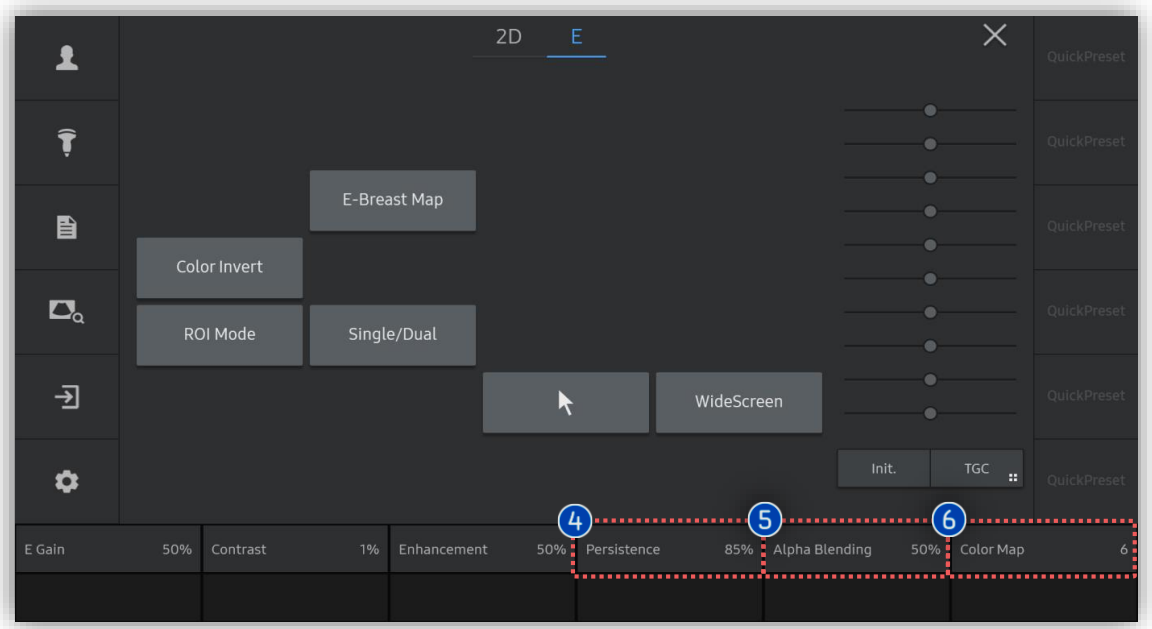
❶ Results	▪ Target strain is calculated based on the ROI circle (not supported in the USA and Canada). ▪ The average strain value is calculated based on the area outside the ROI. (not supported in the USA and Canada) ▪ Strain ratio = $\frac{\text{Reference Strain}}{\text{Target Strain}}$
❷ The Pink arrow	The pink arrow indicates the average strain of the normal tissue (reference strain).
❸ The Green arrow	The green arrow indicates the average strain within the ROI circle (target strain).

6. Adjust Parameters (1)



❶ Color Invert	To reverse the color map, press [Color Invert] button on the touch screen.
❷ Contrast	This feature adjusts the contrast based on the image mode. It has values between 1% and 100%.
❸ Enhancement	Adjust the enhancement of the image between 0 and 100%. A higher value provides more clearly defined boundaries.

6. Adjust Parameters (2)



❹ Persistence	The feature controls the E-Strain frame average. The higher this value is, the higher the frame averaging will be. Increasing the persistence level will reduce the frame rate. For a higher frame rate, decrease the persistence level.
❺ Alpha Blending	This feature superimposes the E-mode image over the 2D image. It has values between 0% and 100%. Setting it to 0% shows an E image only, and setting it to 100% shows a 2D image only.
❻ Color Map	Select the color map of the Elastoscan. Press the button on the touch screen or use the dial-button to select from up to seven types.

- The features mentioned in this document may not be commercially available in all countries. Due to regulatory reasons, their future availability cannot be guaranteed.
- Do not distribute this internal document to customers unless relevant regulatory and legal affairs officers approve such distribution.
- This product is a medical device, please read the user manual carefully before use.
- This document is provided to help you understand the feature.
- This User Quick Guide is based on HERA W10 V1.03.03d
- Disclaimer: Some Images in this content were obtained from other system.