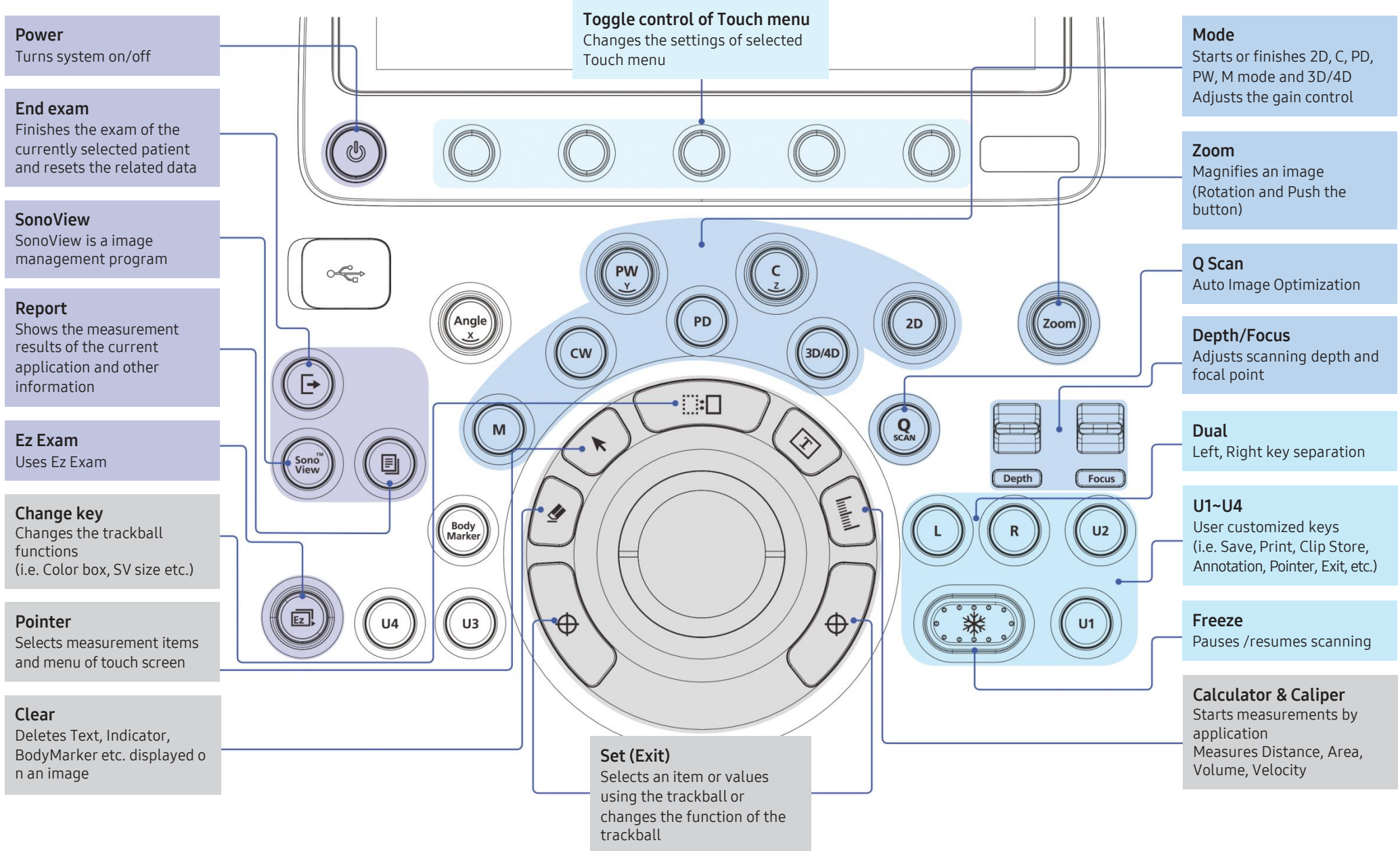


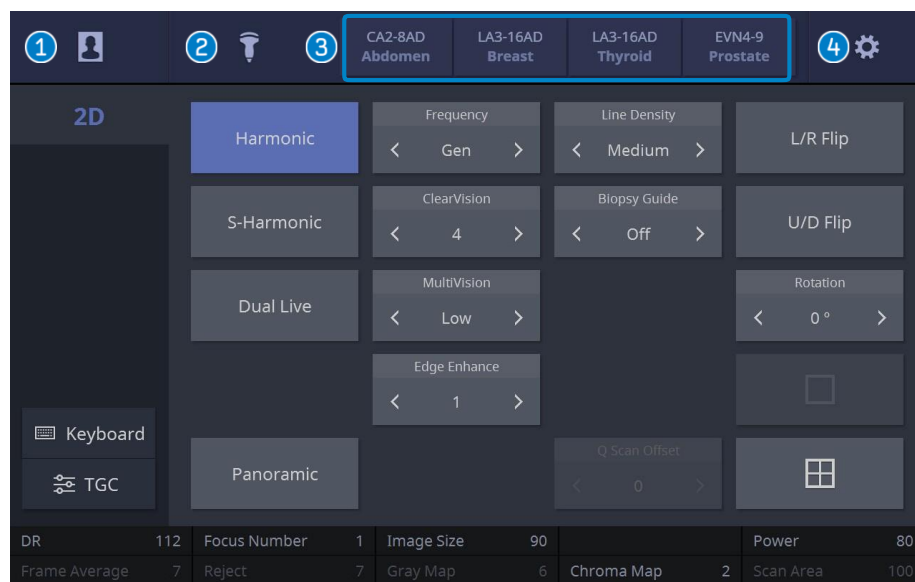
# HS40

## Quick Manual



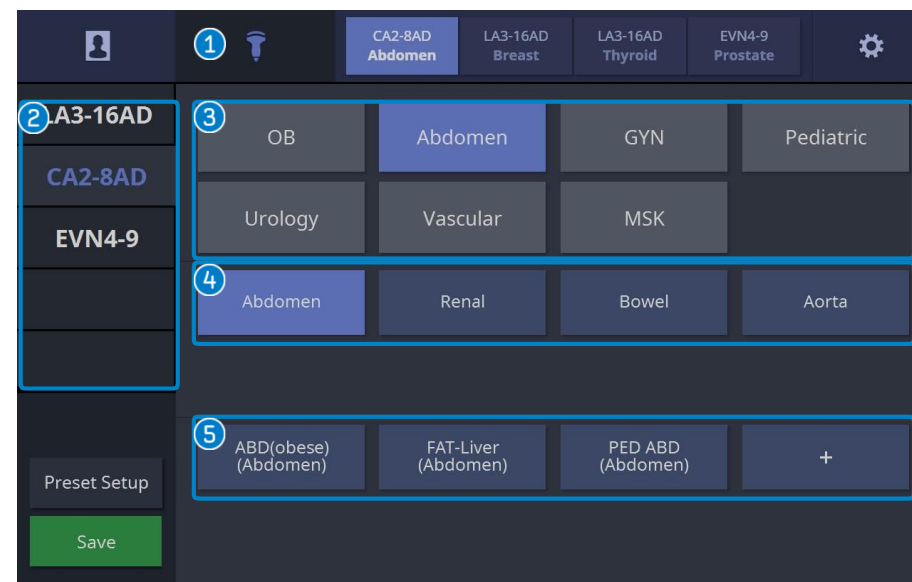


## Information Area



- 1 Patient** Display/enter the Patient Information. You can select a patient ID from worklist or enter a new patient information manually.
- 2 Probe** Displays the Probe Selection screen to select or change the probe and application.
- 3 Quick Preset** Shows the frequently used presets. Changes both probes and presets simultaneously. (Select up to 4 presets on set up menu.)  
\* Setup → System → Quick Preset
- 4 Setup** Configures the general system setting.

## Probe Selection

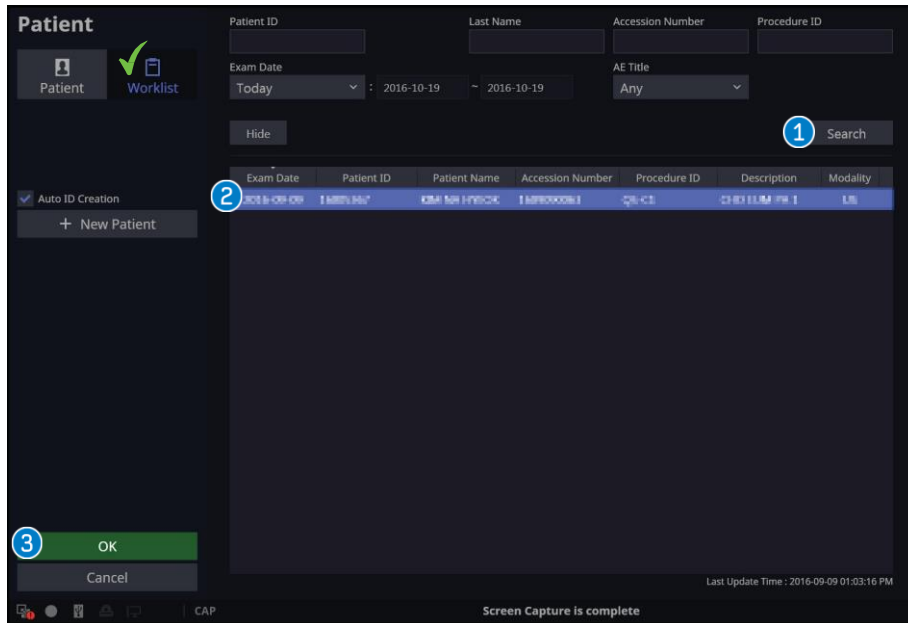


- 1 Probe Selection** Select [Probe] of the touch screen.
- 2 Probe Type** Displays a list of all probes currently connected to the system. Select the probe icon you would like to use.
- 3 Application** Displays a list of applications the selected probe supports.
- 4 Default Preset** Select it when you want to use the factory (default) setting.
- 5 User Preset** User presets can be set as user's preference.

## Worklist Search

■ Select [Patient] on the touch screen.

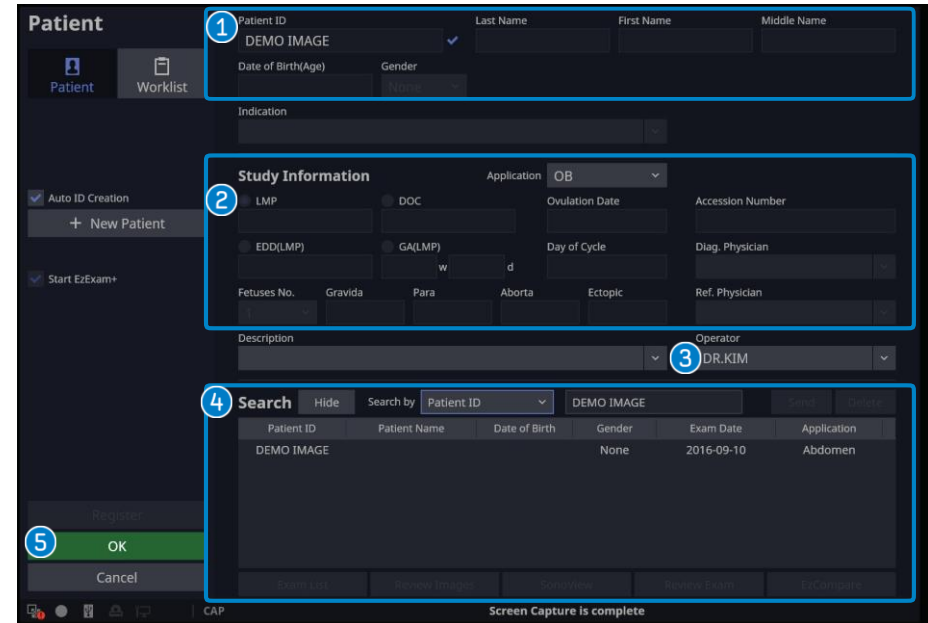
(✓ Worklist search is available only when DICOM is connected.)



- 1 Search** When you click [Search], the list of patients who match the search criteria will be displayed. (Patient list update)
- 2 ID Select** Select the patient list and double click. This applies the selected patient information to the system.
- 3 Start Exam** Click [OK] applied the patient information to the system and switches the system into scanning mode.

## Registration of Patient

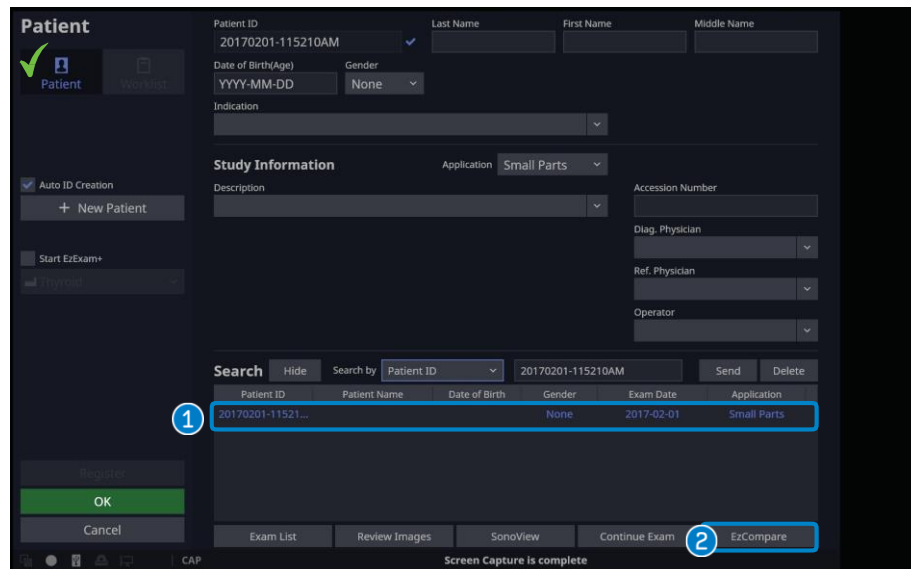
■ Select [Patient] on the touch screen then select [Patient] (✓) on the monitor screen.



- 1 Insert ID** Enter patient ID, name, and other types of basic patient.
- 2 Study Information** Add required information for individual applications. \* Enter the obstetrical information. Application OB tab → LMP, EDD, Fetuses No, etc.
- 3 Operator** Enter the name of the physician who scanned the patient.
- 4 Start Exam** Click the [OK] to enter scan mode.
- 5 Searching Patient Information** Search stored exams in the system. The selected patient information will be applied to the system.

## EzCompare

- [EzCompare] will automatically match the image settings with previous study.

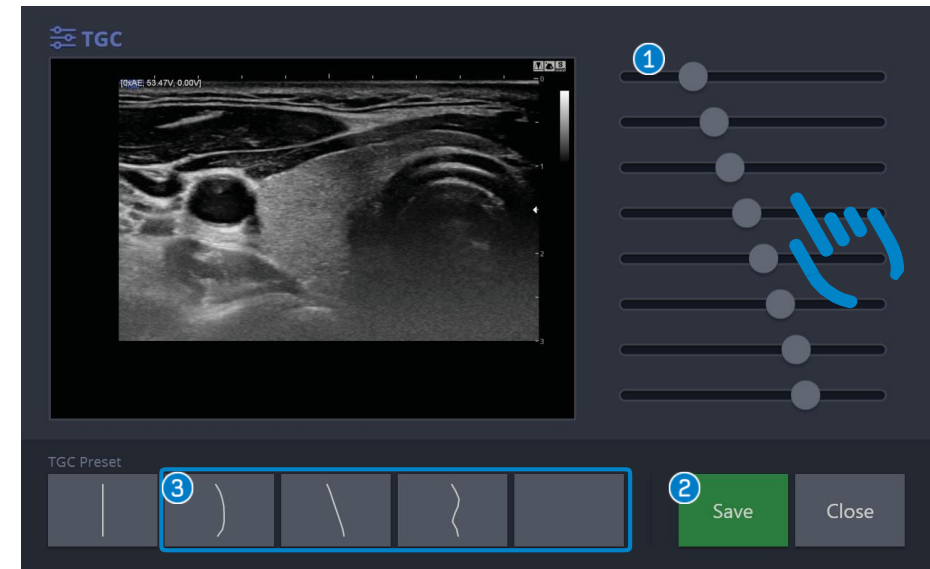


- 1 ID Select** Select the ID from the patient list using the trackball and [Set].
- 2 Select [EzCompare]** Switching to [EzCompare] mode and move to scan mode.
- 3 Check Thumbnail Field** The stored images are displayed as thumbnail and date tab appears.
- 4 Compare Prior study** On one side of the screen, selected images are displayed. On the other side, live scan image will be displayed as identical setting of selected image. (Dual screen)

\* EzCompare is an optional feature of this product.

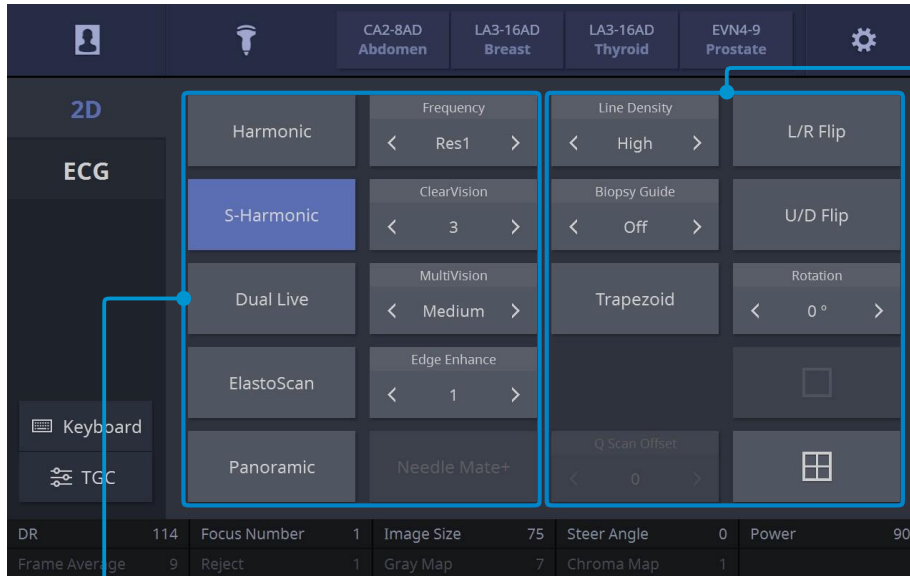
## Digital TGC

- Select the [TGC] on the Touch Screen.



- 1 TGC Line Adjustment** Change the TGC line by dragging with fingers.
- 2 Save** Save the changed TGC line.
- 3 Designation of Location** Select the save location. Up to 4 appropriate curve settings to the user preset setting are possible to set.

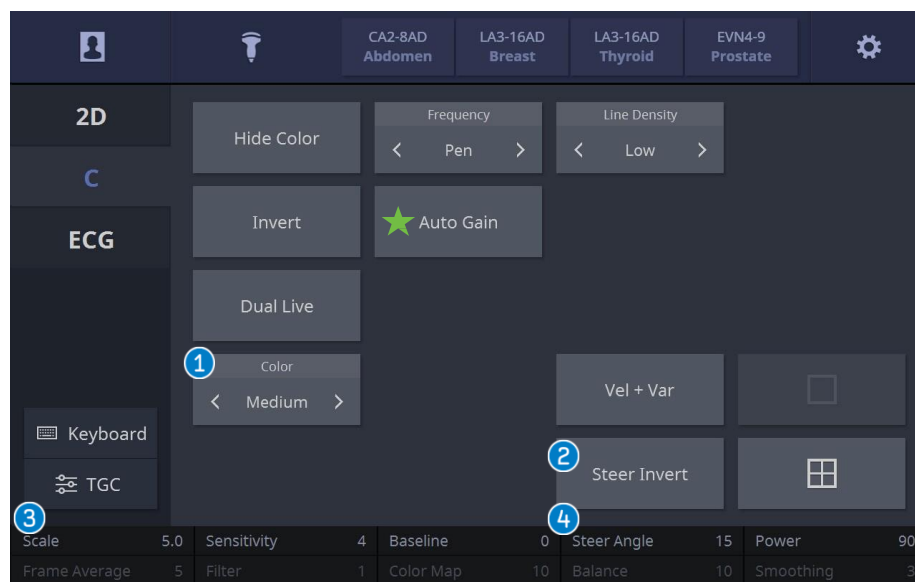
## Touch Screen – Scan mode



<b>Line Density</b>	Selecting [High] increases the number of scan lines and improves the image resolution.
<b>L/R Flip U/D Flip</b>	Flips the image horizontally, vertically.
<b>Biopsy Guide</b>	Adjusts the biopsy guideline before using the biopsy feature.
<b>Trapezoid</b>	Changes rectangular format from linear probe to trapezoidal format, so can provide wider view angle.
<b>Rotation</b>	Selects a rotation angle to either 0°, 90°, 180° or 270°.
<b>Layout</b>	Singe, Quad image

<b>Harmonic</b>	Adjusts contrast resolution of image. Provides the OHI (Optimal Harmonic Imaging) high frequency function to optimize images.
<b>Frequency</b>	Configures the probe's frequency. Adjusts penetration to resolution.
<b>S-Harmonic</b>	Provides more clear image from near to far zone using wide band frequency.
<b>ClearVision</b>	Removes noise and enhances outlines to make the image more clearly.
<b>Dual Live</b>	Displays 2D image and Color Doppler image simultaneously.
<b>MultiVision</b>	The spatial compound image by using multi-beam.
<b>ElastoScan</b>	Provides elasticity imaging of an object and strain ratio of tissue. (This is the optional feature.)
<b>Panoramic</b>	Acquires wider image range via reconstructing multiple frames.
<b>Needle Mate+</b>	Provides better needle visibility. (Needle enhancement)

## Color/PD Doppler/S-Flow



- 1 Color** Automatically adjust the appropriate color scale.
- 2 Steer Invert** Inverts the direction of Color box.
- 3 Scale** Adjusts the PRF. (Pulse Repetition Frequency)
- 4 Steer Angle** Adjusts the angle of color box. (-20, -15, -10, 0, 10, 15, 20)
- ✓ S-Flow** High sensitivity bi-directional Power Doppler mode for tiny vessels. (Access from PD mode → S-Flow mode)

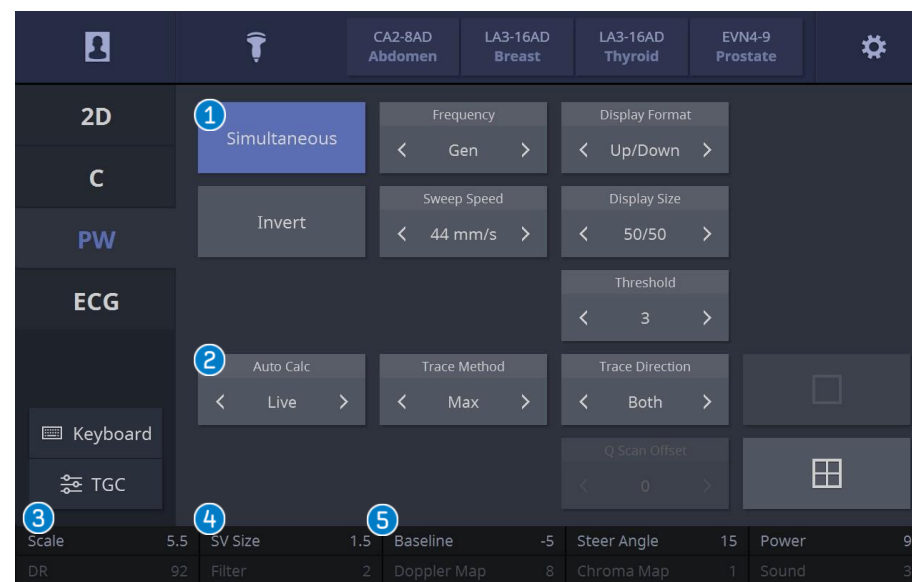
### ■ Smart Dynamic Color

#### ★ Auto Gain

Select [Auto Gain] on the touch screen in Artery, Carotid preset.

- Adjusts proper Color gain automatically frame by frame.
- The dynamic color coding up on blood pressure can be controlled via [Auto Gain] function.

## PW/CW Doppler



- 1 Simultaneous** Views real-time 2D and Spectral Doppler image at the same time.
- 2 Auto Calc** Automatically calculate the values of Doppler.
- 3 Scale** Adjusts the PW/CW PRF. (Pulse Repetition Frequency)
- 4 SV Size** Selects a SV size between 0.5~20mm.
- 5 Baseline** Adjusts baseline by rotating dial-button.

### Smart Auto Doppler \* This function is only available in Vascular preset of linear probe.

Select [Quick Scan] on the control panel in the Doppler mode.

- Location of the ROI box, the sample volume position, and the direction of the Steer angle can be controlled by one click.
- Improves the complex UI Workflow of Doppler mode.

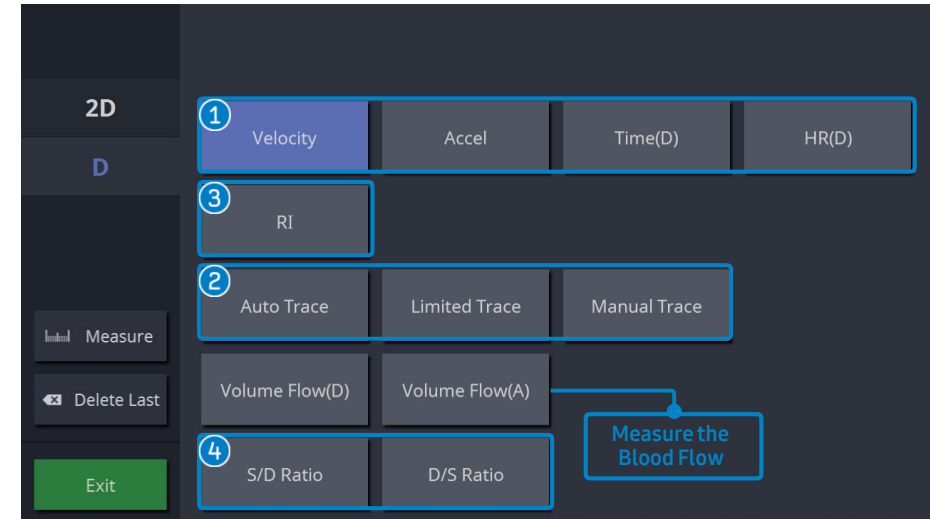
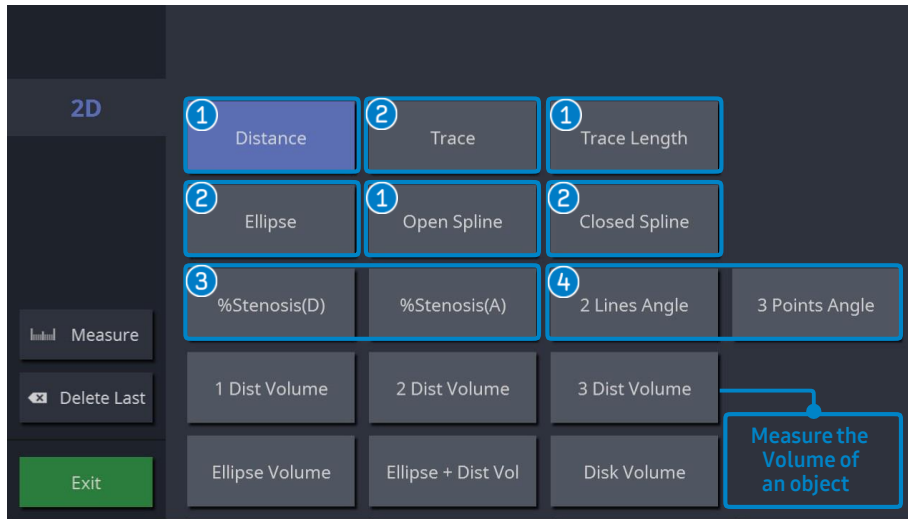
## Measurement

### ■ Caliper & Measure



Data measurement by application (OB, Cardiac, Vascular, Prostate, etc.)

Measures (using a trackball and [set]) selected items (i.e. Distance, Area, Volume, Doppler measure etc.)



- |   |   |   |
|---|---|---|
| <p><b>1 Distance</b></p> <p><b>2 Area</b></p> <p><b>3 %Stenosis(D)<br/>%Stenosis(A)</b></p> <p><b>4 Angle</b></p> | <p><b>Distance</b><br/><b>Open Spline</b><br/><b>Trace Length</b></p> <p><b>Ellipse</b><br/><b>Trace &amp;</b><br/><b>Closed Spline</b></p> <p><b>3 Point</b><br/><b>2 Line</b></p> | <p>Measures the straight distance between 2 points.</p> <p>Measures traced curved-line.</p> <p>Uses the trackball to draw the desired curve.</p> <p>Measures the circumference area.</p> <p>Measures the trace and area of an irregular object.</p> <p>Diameter &amp; Area of a vessel is measured and the stenosis ratio is calculated.</p> <p>Measures the angle using 3 points.</p> <p>Measures the angle between 2 lines.</p> |
|---|---|---|

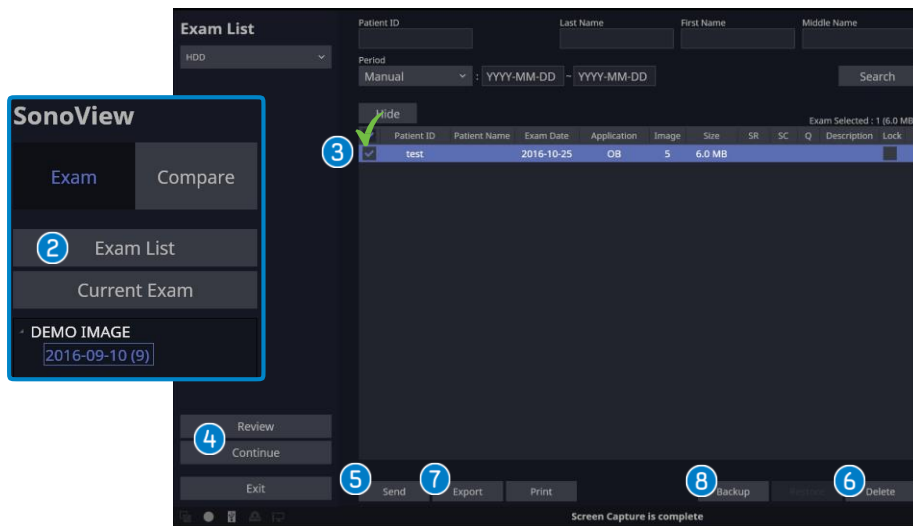
- |   |   |
|---|---|
| <p><b>1 Velocity</b></p> <p><b>* Accel</b><br/><b>Time(D)</b><br/><b>HR</b></p> <p><b>2 Auto</b><br/><b>Limited</b><br/><b>Manual</b></p> <p><b>3 RI</b></p> <p><b>S/D Ratio</b><br/><b>D/S Ratio</b></p> | <p>Measures the velocity at 1 specified point.</p> <p>Measures the velocity to calculate the time and acceleration.</p> <p>Calculates the time between the bars.</p> <p>Measures the Heart rate between the two bars.</p> <p>Automatic spectrum trace within whole range.</p> <p>Automatic spectrum trace within specified range.</p> <p>Trace Spectral Doppler wave form and calculate velocity, and the average velocity of blood flow. (includes S/D ratio, RI, PI)</p> <p>Measures the RI, S/D ratio and D/S ratio at 2 specified points.</p> |
|---|---|

\* Accel : Acceleration



## SonoView – Image Management, Export & Backup

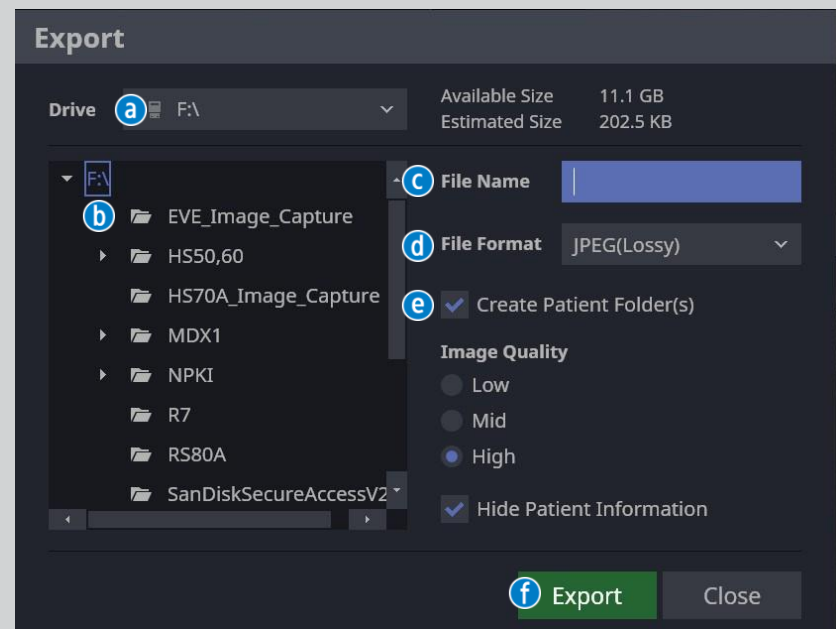
- 1 Tab [SonoView] of the control panel.
- 2 Select a exam list of [SonoView] screen. (Open exam list)



- 3 **Select a Exam** Check the combo box (✓) in front of the patient ID in the [Exam List].
- 4 **Review or Continue** Reviews the saved images. Exams performed longer than 24 hours, only review is allowed. If the exam was performed within 24 hours from now, append exam is allowed.
- 5 **Send** Transfers the exam to PACS server. (Select Send → Displayed the DICOM Storage → Select Alias → Transfer)  
\* Transfer all images on selected exams.
- 6 **Delete** Deletes the exam.

- 7 **Export** Converts image to PC compatible format such as BMP, JPEG, TIFF, AVI, MPEG, DICOM.

- a Select Drive. ( CD-G:, USB-H: )
- b Directories – Select the location in which the exam will be saved.
- c Enter the file name.
- d Select file and video format. (BMP, JPEG, TIFF, MPEG, AVI, DICOM)
- e Export Option
  - Hide Patient Information – To remove patient ID and name
  - Create Patient Folder – Categorized files per date and patient ID Click [Export]
- f [Export]



- 8 **Backup** Back up and restore data. These backup data only can be review on the system.  
Select Backup → Confirm [Yes] → Select Drive → DVD(g:), USB(h:)

**SAMSUNG**