

OLYMPUS

Aplio i800 EUS

Quick Reference Guide



Disclaimer

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

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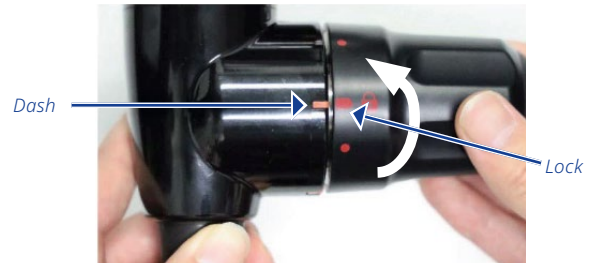
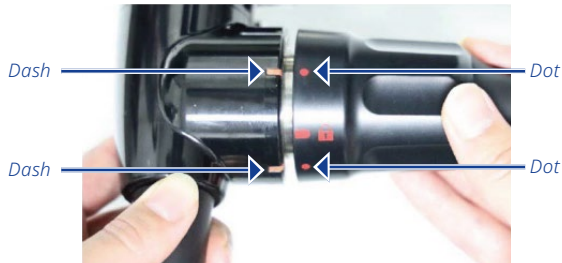
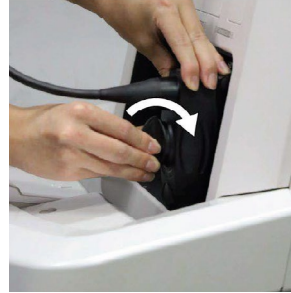


Getting Started



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Connecting an Ultrasound Endoscope



Connecting an Ultrasound Endoscope



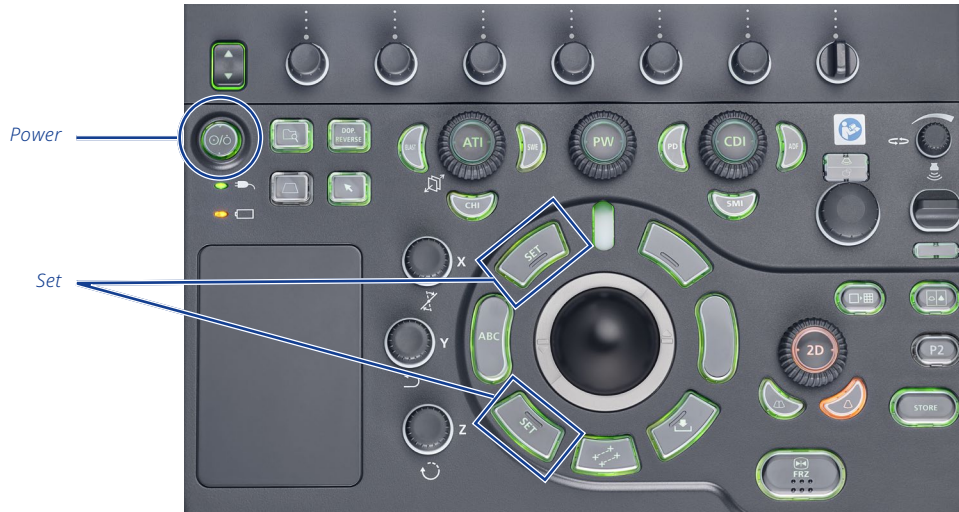
Continued

1. Holding the rectangular end of the ultrasound cable, vertically, with “EUS” legible across the bottom, plug the rectangular end of the ultrasound cable into a port on the ultrasound system.
2. Lock it in place by turning the knob clockwise.
3. At the round end of the cable, align the two red dots with the red dashes on the scope.
4. Rotate clockwise to lock into place.

NOTICE:

1. Be sure to turn OFF the power or select another ultrasound endoscope connector before connecting or disconnecting either end of the ultrasound cable from the currently selected ultrasound endoscope. Connecting or disconnecting either end of the ultrasound cable from the currently selected ultrasound endoscope can result in damage to the system or to the scope.
2. Do not connect or disconnect an ultrasound endoscope or transducer during system startup or shutdown. Doing so may cause a malfunction.

Startup and Shutdown



Startup and Shutdown



Continued

Startup

- Press the **Power** button for approximately 1 second and release.
- The **Power** button will change from orange to green.



Shutdown

- Press the **Power** button once.
- A **Power Control** Message will appear.
- Press the **Power** button a second time or **Set** to select **Shutdown** on the monitor.
- The shutdown process will start. Do not disconnect the power cable until the system has shut down completely and the **Power** button is orange again.

Starting an Examination



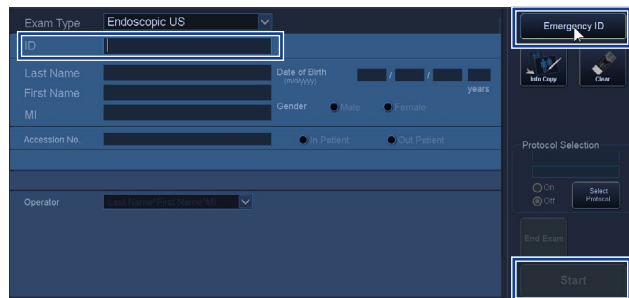
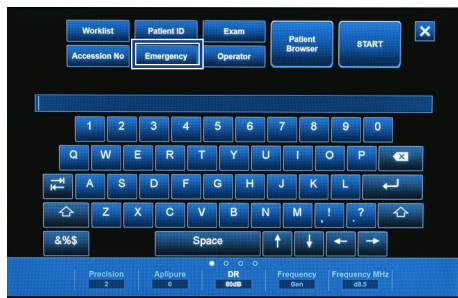
The patient registration screen is displayed automatically when the system starts up.

- It can also be displayed by pressing Exam on the touch panel.

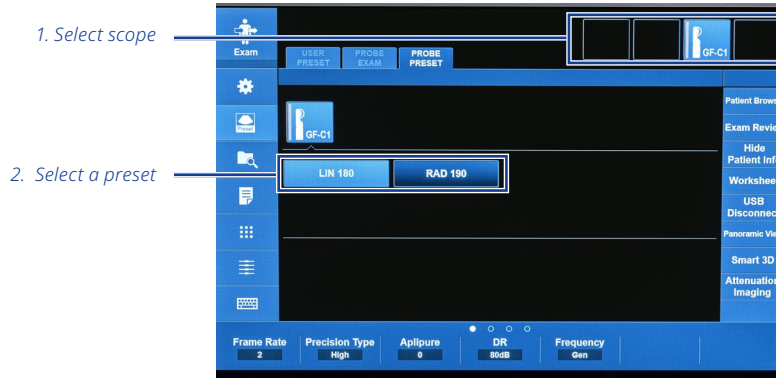


Enter the desired patient information and press **Start**.

- If no patient information will be entered, choose **Emergency ID** on the monitor or **Emergency** on the touch panel and press **Start**.
- Start will only become available after the ID (either manually entered or system generated) is populated.



Selecting a Preset



1. Select a scope.
2. Choose the appropriate preset to begin your exam.

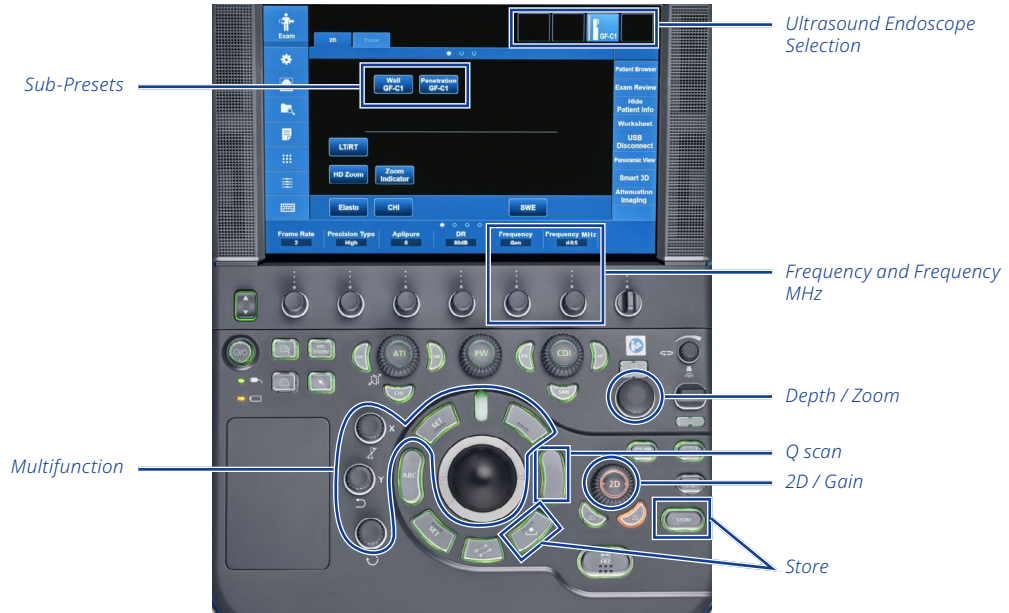
Note: Reselecting your preset should be the first step in troubleshooting any imaging related issues.

Imaging Controls



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Imaging Controls



Imaging Controls



Continued

- **Presets and Sub-Presets** – Registered parameters related to the image quality.
- **2D / Gain** – Rotate to adjust the 2D mode (B mode) gain, which increases or decreases the image brightness. Depress the center to display images in 2D mode.
- **Q scan (Quick scan)** – Adjusts 2D gain automatically.
 - Tap once to turn on and double tap to turn off.
- **Frequency** – Used to set the 2D image frequency. In general, higher frequencies produce higher resolution, while lower frequencies improve penetration, enabling better visualization of deeper regions.
 - Use the knob below Frequency to adjust the frequency group - Resolution, General, Penetration.
- **Frequency MHz** – Use the knob below Frequency MHz to select the specific frequency value. THI and D-THI can be activated here.
- **Store** – Use to save images to the hard drive.
 - A frozen image stores a single frame.
 - Live imaging stores video.
- **Depth / Zoom** – Depth adjusts how many centimeters of tissue are displayed on the screen. Zoom allows you to pan and magnify the image.
- Depress the button to switch between these functions.
- **Multifunction** – Various functions can be assigned to the trackball, switches and dials. These functions may change depending on the current mode. They are displayed in the Multifunction Display Area on the lower right corner of the monitor.

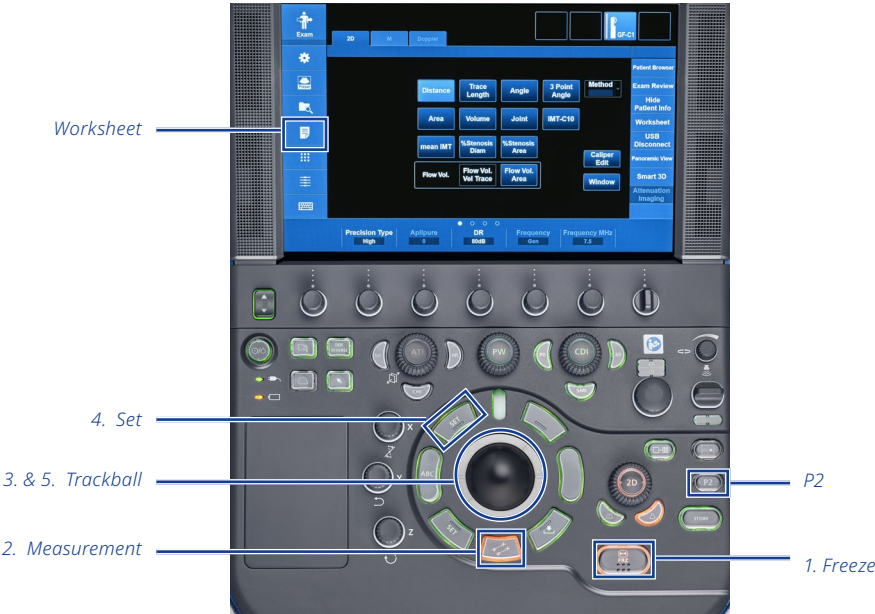


Measurement



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Measurement



Measurement



Continued

1. **Freeze** the image.
2. Press **Measurement**.
3. Place the caliper using the **Trackball**.
4. Press **Set**.
5. Place the second caliper using the **Trackball**.

For a second measurement, press **Set** and repeat steps 3-5.

Modification of the measurement window



Modification mode starts when  is pressed.

Change is set when  is pressed again.



Moving the
measuremen window



Changing the size of
the measurement
window

EUS Measurement Package

When using this measurement package, measurements will automatically be annotated and will appear on a measurement report.

1. Select **P2**.
2. Select desired annotation for the structure to be measured.
3. Follow measurement steps.
4. Press **Worksheet** on the touchscreen to view the report.

Tip: To move and resize the measurement window, place the cursor on the bottom left corner of the box and press Set. Then use the Trackball to move and the Wheel (above the trackball) to resize the window. Press Set when complete.

Annotation



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Annotation



4a. Software Keyboard

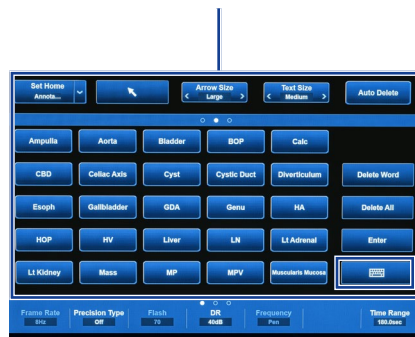
2. ABC

3. Trackball

1. Freeze

4c. Hardware Keyboard

4b. Registered Annotations Menu



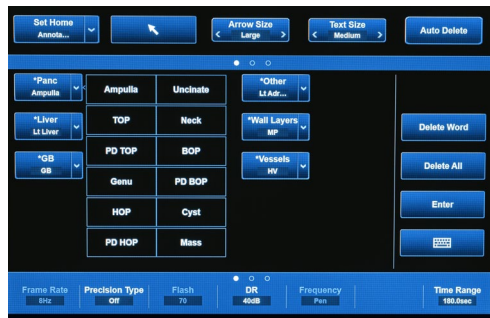
Annotation



Continued

1. **Freeze** the image.
2. Press **ABC**.
3. Move cursor to desired location using the **Trackball**.
4. Enter a comment by using one of the following options:
 - a. Enter characters using the **Software Keyboard**.
 - b. Select from the **Registered Annotations Menu**.
 - c. Enter characters using the **Hardware Keyboard**, located under the main console.

Switch between the **Software Keyboard** and the **Registered Annotations Menu** using the **ABC** and **Keyboard** icon on the bottom right of the touch screen.



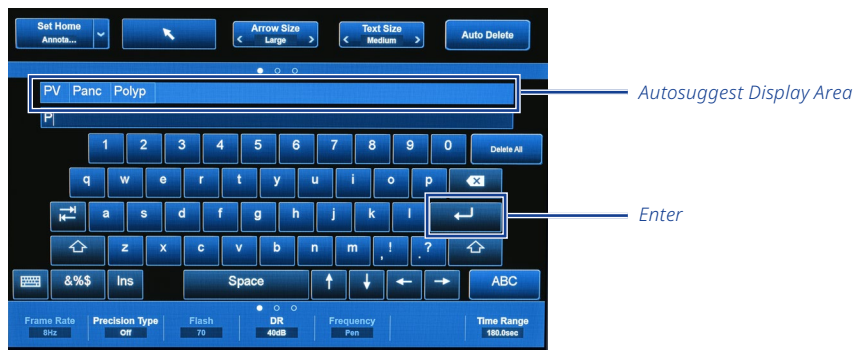
Tip: Registered annotations can also be grouped together. Swipe through the Registered Annotations Menu pages to find the grouped options. Click on the arrow to the right of a subgroup to expand the list and select the desired comment. Click the arrow again to close the list.

Autosuggest Annotations

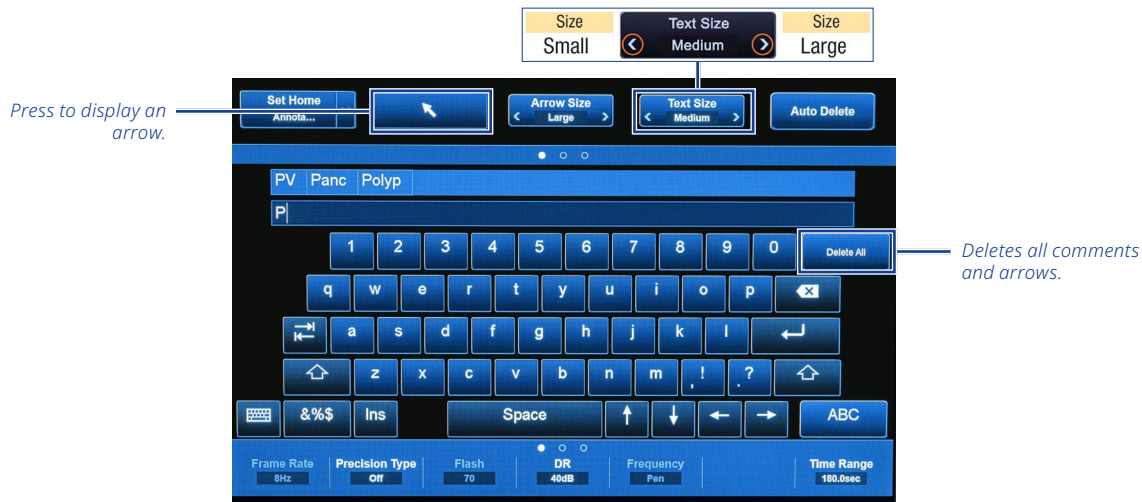


1. Press **ABC** on the main console and select the **Software Keyboard**.
2. Start to type a comment.
 - Comments that contain the typed letters will appear in the **Autosuggest Display Area**.
3. Touch on the desired word to use it.

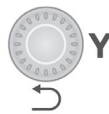
If the desired word does not appear, type the full word and then touch the **Enter** icon on the **Software Keyboard** and the word will be added to the **Autosuggest Annotations**.



Annotation Tips



Use the Z Multifunction Dial to rotate the arrow.



To delete specific characters or arrows, position the cursor and push the Y Multifunction Dial.



Doppler Controls 23

Doppler Controls



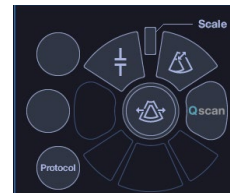
Doppler Controls



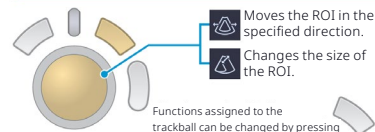
Continued

• Color Doppler Modes:

- **Color Doppler (CDI)** – Displays the direction and velocity of blood flow.
- **Power Doppler (PD)** – Displays the intensity (amplitude) of blood flow.
- **Advanced Dynamic Flow (ADF)** – Displays high-resolution, directional blood flow.
- **Superb Micro-vascular Imaging (SMI)** – Expands the range of visible blood flow by revealing low velocity, microvascular flow.
- **Color Gain** – Adjusts the blood flow detection sensitivity. Adjusted by rotating the CDI dial.
- **Pulsed Wave Doppler (PW)** – Measures the velocity of blood flow and displays the wave form.
- **PW Gain** – Increases or decreases the brightness of the waveform. Adjusted by rotating the CDI dial.
- **TwinView** – Displays the real-time 2D image and Color image simultaneously.
- **Q scan (Quick scan)** – When in PW Doppler mode, velocity range and baseline are adjusted automatically.



Moving and changing the size of the ROI



Velocity range



Displaying the Doppler cursor

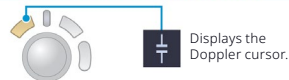


Image Management



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Image Management Controls



The screenshot displays the Aplio i800 software interface. On the left is a vertical 'Patient Browser' menu with icons for Exam, Settings, Preset, and a folder icon. The main area shows a table of patient data with columns for ID, Name, Date, Time, and Exam details. A search bar at the top allows filtering by ID or Name. Below the table is a 'View Images' section with a 'Thumbnail' view. At the bottom, a toolbar contains buttons for 'View', 'Send To', 'Job Status', 'Move Trash', 'Empty Trash', 'Archive', and 'Trash Archived'.

ID	Name	Date	Time	Exam	Size
2020120101131 ID	2020120101131 Name	12/01/2020	8:27:44 AM	Endoscopic US 1	75.4 MB
2020120101132 ID	2020120101132 Name	12/01/2020	4:30:23 PM	Endoscopic US 2	82.4 MB
2020120101133 ID	2020120101133 Name	12/01/2020	4:43:56 PM	Endoscopic US 3	0.1 MB
2020120101134 ID	2020120101134 Name	12/01/2020	5:45:18 PM	Endoscopic US 1	48.6 MB
2020120101135 ID	2020120101135 Name	12/01/2020	11:43:58 AM	Endoscopic US 1	0.0 MB
2020120101136 ID	2020120101136 Name	12/01/2020	10:34:51 AM	Endoscopic US 1	291.8 MB
2020120101137 ID	2020120101137 Name	12/01/2020	11:43:53 AM	Endoscopic US 2	0.1 MB
2020120101138 ID	2020120101138 Name	12/01/2020	10:15:25 AM	Endoscopic US 2	0.1 MB
2020120101139 ID	2020120101139 Name	11/30/2020	1:49:45 PM	Endoscopic US 1	430.3 MB
2020120101140 ID	2020120101140 Name	11/30/2020	1:05:07 PM	Endoscopic US 1	64.0 MB
2020120101141 ID	2020120101141 Name	12/01/2020	11:31:20 AM	Endoscopic US 1	0.0 MB
2020120101142 ID	2020120101142 Name	12/01/2020	10:25:40 AM	Endoscopic US 2	11.7 MB
2020120101143 ID	2020120101143 Name	12/01/2020	11:18:20 AM	Endoscopic US 1	0.0 MB
2020120101144 ID	2020120101144 Name	12/01/2020	10:18:55 AM	Endoscopic US 1	0.0 MB

Patient
Browser

Search using patient ID,
patient name or exam
date

View
Images

Send
To

Data Display
Area

Delete Exams or
Images

Patient/Exam Display
Area

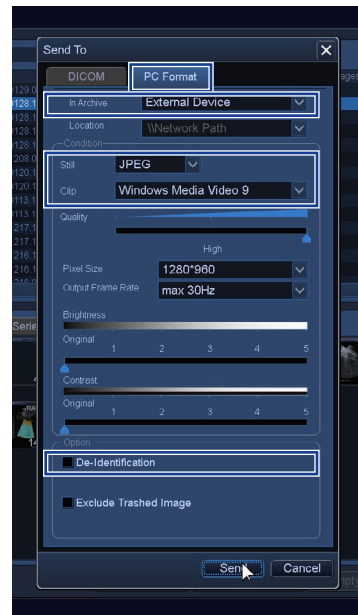
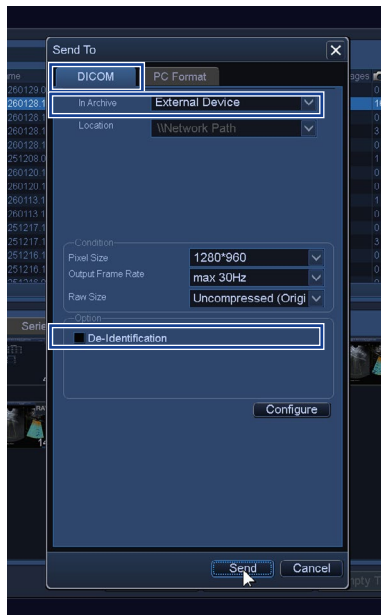
- Move to Trash - Moves the selected image(s) to the trash bin (press again to undo deletion).
- Empty Trash - Permanently deletes items in the trash bin.

Image Management Controls



Continued

- Select desired data and click Send To.
- Choose DICOM or PC Format and the destination (In Archive).
- Select the file type for both stills and clips when transferring in PC Format.
- Images can be de-identified before transferring.



Advanced Features

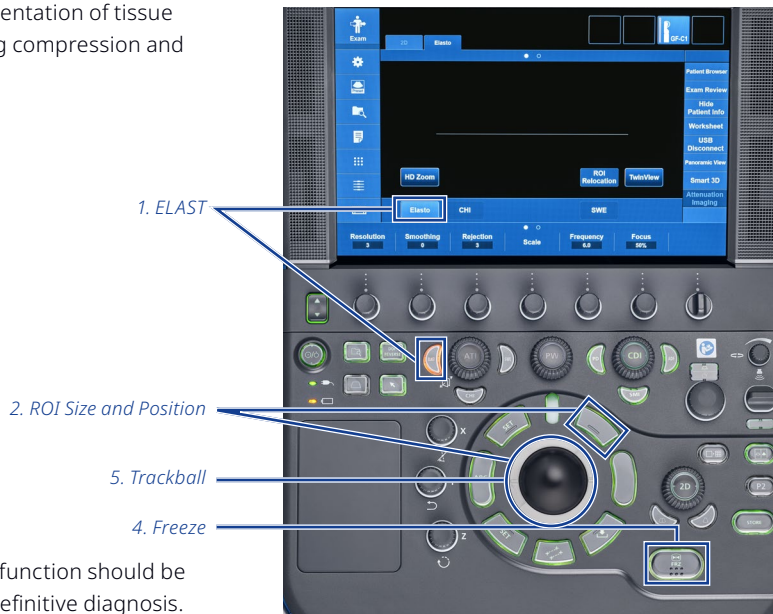


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Elastography



Elastography provides a visual representation of tissue elasticity in the area of interest during compression and retraction, via a color map.



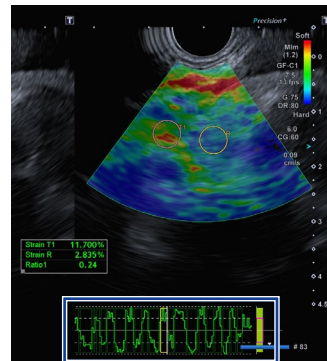
The analysis results displayed by this function should be used only as reference data, not for definitive diagnosis.

Elastography

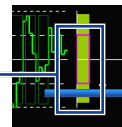


Continued

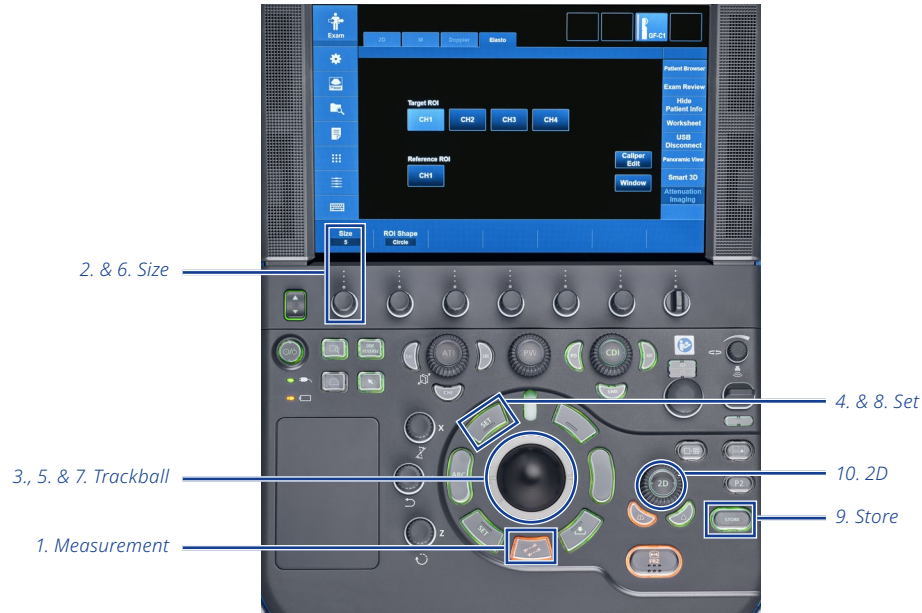
1. Obtain a high-quality B mode image with respiratory variation or cardiac motion perpendicular to the ultrasound beam and press **ELAST**.
 - Do not intentionally compress.
2. Use the Multifunction button and Trackball to adjust the **ROI position and size**.
 - Press the Multifunction button to switch between position and size functions.
 - Include normal gastric/duodenal wall.
 - Omit fluid-filled structures (i.e. vessels).
 - Aim for a one-to-one ratio of normal to abnormal tissue within the ROI.
3. Use the **Strain Graph** and the **Quality Control Interactive** (pink box) to obtain a good Elastography image.
 - The goal is for the sine waves to stay within the reference area indicated by the filling of pink box.
 - A good elastography image is one filled with the most persistent colors.
4. **Freeze** the image.
5. Use the **Trackball** to select the preferred frame.



3. Strain Graph & Quality Control Interactive



Elastography: Strain Ratio Measurement

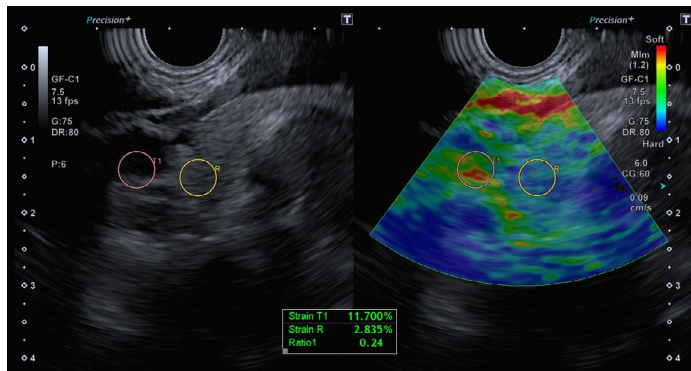


Elastography: Strain Ratio Measurement



Continued

1. Using the elastography image obtained, press **Measurement**.
2. The Target ROI will appear. Adjust ROI **Size**, if needed.
3. Using the **Trackball**, position Target ROI in abnormal area.
4. Press **Set**.
5. Move the **Trackball** and the Reference ROI will appear.
6. Adjust ROI **Size**, if needed.
7. Using the **Trackball**, position Reference ROI in normal area.
8. Press **Set**.
9. **Store** image, if needed.
10. To exit out of ELAST, press **2D**.



Tip: To delete an ROI, press down on the Y Multifunction Dial.

Shear Wave Elastography



Shear Wave Elastography utilizes a push pulse to generate shear waves, which propagate through the tissue, perpendicular to the ultrasound beam. A quantitative measure and dynamic display of tissue stiffness is provided by calculating the propagation velocity of the shear waves. *Only available with GF-UE190 and GF-UCT180.*

4. Meas. Area Threshold

1. SWE

3. 1 Shot

2. Trackball



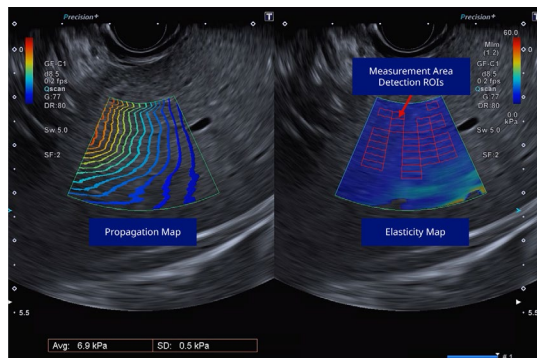
The analysis results displayed by this function should be used only as reference data, not for definitive diagnosis.

Shear Wave Elastography



Continued

1. Obtain a high-quality B mode image and press **SWE**.
 - Minimal vessels and avoid artifacts.
 - Apply normal pressure on the transducer to avoid falsely increasing kPa or m/s outputs.
2. Place the Acquisition ROI in an optimal area using the **Trackball**.
 - 1.0 - 1.5 cm deep (measured from the surface of the transducer to the top of the ROI).
 - Avoid large vessels and remain centered.
3. Press **1 Shot** (see Multifunction display).
4. Adjust the **Meas. Area Threshold**.
 - The Meas. Area Threshold is used to set the standard deviation (SD) value of the Measurement Area Detection ROI (red boxes). Only the ROIs with an SD value below the set value are displayed.
 - Set to the lowest possible value to where a cluster(s) of standard deviation boxes is visible.



Shear Wave Elastography

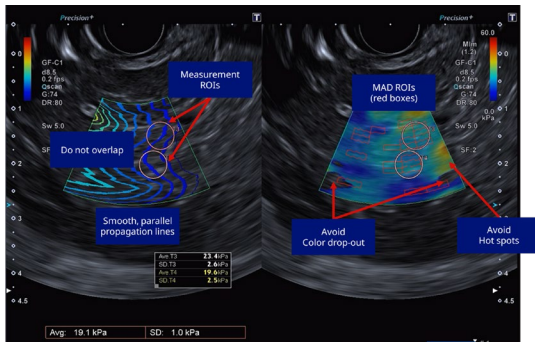


Continued

5. Press **Measurement** and use the **Trackball** and **Set** to place 2 Measurement ROIs.
- Avoid color drop-out and “hot spots” on the Elasticity map. Avoid blood vessels.
 - The Measurement ROIs should not overlap.
 - Target smooth, parallel lines on the Propagation Map and/or clusters of Measurement Area Detection ROI boxes.



5. Measurement, Trackball & Set



Shear Wave Elastography



Continued

	Speed[m/s]		Elasticity[kPa]		Depth[cm]
	Average	SD	Average	SD	
☒ 1	1.16	0.07	3.9	0.6	1.6
☒ 2	1.12	0.05	3.7	0.4	1.6
☒ 3	1.15	0.06	3.8	0.5	1.5
☒ 4	1.17	0.12	4.0	0.9	1.5
☒ 5	1.41	0.04	5.8	0.5	1.4
☐ 6	0.88	0.09	2.7	0.6	1.3
☒ 7	1.16	0.09	3.9	0.8	1.6
☐ 8	1.42	0.24	6.0	2.2	1.5
☒ 9	1.34	0.05	5.2	0.6	1.4
☒ 10	1.27	0.10	4.7	0.8	1.4
☒ 11	1.33	0.05	5.2	0.5	1.5
☐ 12	1.49	0.07	6.5	0.7	1.9
☒ 13	1.35	0.06	5.3	0.6	1.4
Mean	1.25		4.5		
SD	0.10		0.7		
Median	1.22		4.3		
IQR	0.17		1.3		
IQR/Median	0.14		0.30		

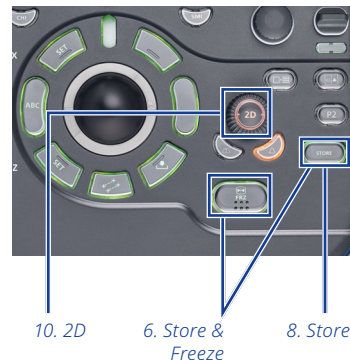
7. & 9. Worksheet

Shear Wave Elastography



Continued

6. **Store** image and **unfreeze** to begin another acquisition in the same location, repeating steps 2-5.
 - Repeat until 5 Acquisitions with 10 Measurements from the same acoustic window have been obtained.
7. Once complete, press **Worksheet**.
 - Make sure you see the SWE Report.
 - The Median kPa value is reported.
 - Review measurement values, ensuring that the **kPa IQR/M ≤ 0.3** .
 - If the IQR/M is not equal to or less than 0.3, retake any values that seem to be outliers.
8. **Store** an image of the final report page.
9. Press **Worksheet** to exit out of the report page.
10. To exit SWE mode, press **2D**.

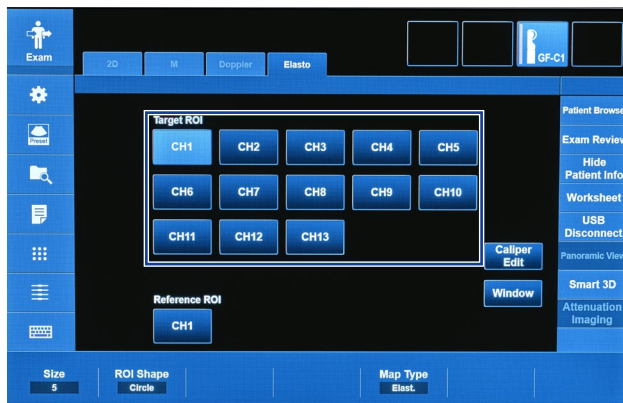


Shear Wave Elastography: Tips



Tip: If the IQR/M is not equal to or less than 0.3, an additional 3 measurements can be taken (total of 13 measurements). Repeat steps 2-5 and reassess the IQR/M value.

Measurements can also be replaced. With SWE active and the image live, repeat steps 2-4 and press Measurement. On the touch screen, select the Target ROI CH number that corresponds to the measurement number to be replaced. An ROI will appear. Place and set the ROI and store an image.



Attenuation Imaging



Continued

1. Obtain a high-quality B mode image and press **ATI**.
 - Minimal vessels and avoid artifacts.
 - Apply normal pressure on the transducer.
2. Use the Multifunction button and Trackball to adjust the **ROI position and size**.
 - Press the Multifunction button to switch between position and size functions.
 - Size the Acquisition ROI according to the acoustic window.
 - Keep the Acquisition ROI centered.
3. **Freeze** the image and select **Meas. ROI 1** on the touch screen.
4. Use the Multifunction button and Trackball to adjust the **ROI position and size**.
 - Press the Multifunction button to switch between position and size functions.
 - Position the top of the Measurement ROI just below the dark orange artifact in an area with minimal vessels.
 - Try to obtain an $R^2 > 0.9$.
 - Place one Measurement ROI per Acquisition ROI.
5. Press **Store** to capture the measurement and an image.
6. **Unfreeze** the image. Repeat steps 3-6.
 - Repeat until 5 measurements from the same acoustic window are acquired.

Attenuation Imaging

Continued



Shear Wave

	Average	SD	Average	SD	Depth[cm]
1	1.44	0.07	6.1	0.7	1.5
2	1.48	0.12	6.5	1.1	1.5
3	1.47	0.06	6.4	0.6	1.5
4	1.69	0.06	8.4	0.7	1.5
5	1.62	0.10	7.8	0.9	1.7
6	1.40	0.12	5.8	1.1	1.5
7	1.15	0.07	3.8	0.6	1.5
8	1.39	0.05	5.7	0.6	1.7
9	1.23	0.17	4.5	1.4	1.8
10	1.51	0.04	6.7	0.5	1.6

Attenuation

	ATI[dB/cm/MHz]
1	0.63
2	0.58
3	0.66
4	0.58
5	0.59

Application Measurement

	Speed [m/s]	Elasticity [kPa]	ATI [dB/cm/MHz]
Mean	1.44	6.2	0.61
SD	0.16	1.3	0.03
Median	1.46	6.3	0.59
ICR	0.12	1.0	0.07
ICR/Median	0.08	0.17	0.11

Graph Settings SWDHistory12Sample

SWDHistory12Sample

Legend: #sample5, #sample4, #sample3, #sample2, #sample1

Exam Date

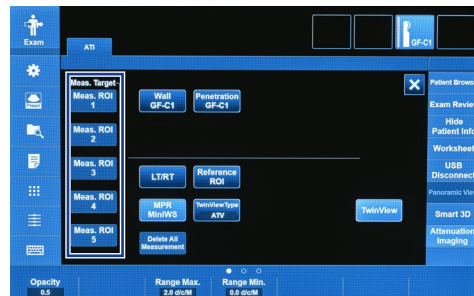
7. & 9. Worksheet

Attenuation Imaging



Continued

7. Once complete, press **Worksheet**.
 - Make sure you see the Multi Parametric Report.
 - The Median ATI value is reported.
 - Review measurement values, ensuring that the **IQR/M ≤ 0.15** .
 - If the IQR/M is not less than or equal to 0.15, retake any values that seem to be outliers.
8. **Store** an image of the final report page.
 - If another measurement set will be obtained, clear all measurements after storing an image.
9. Press **Worksheet** to exit out of the report page.
10. To exit ATI mode, press **ATI**.

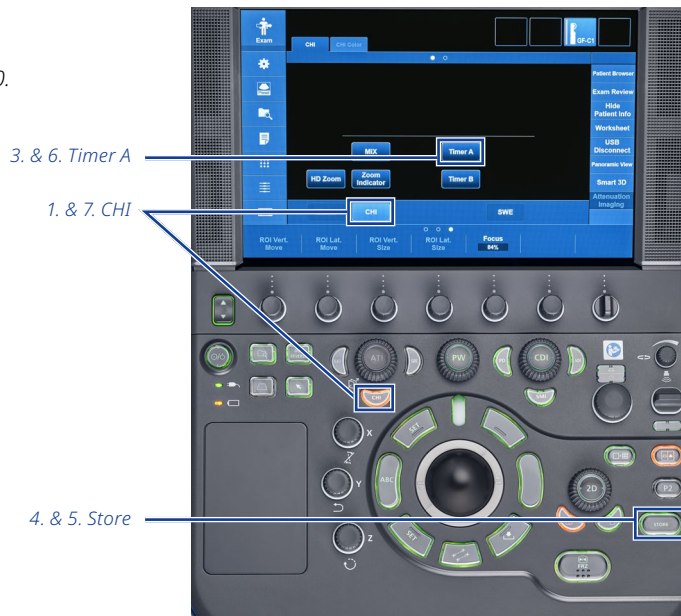


Tip: If the IQR/M is not equal to or less than 0.15, measurements can also be replaced. With ATI active and the image live, use the Multifunction button and Trackball to adjust the ROI position and size and then freeze the image. On the touch screen, select the Meas. ROI number that corresponds to the measurement number to be replaced. An ROI will appear. Place and set the ROI and store an image.

Contrast Harmonic Imaging



Contrast Harmonic Imaging is the application of an ultrasound contrast agent to traditional ultrasonography. *Only available with GF-UCT180.*

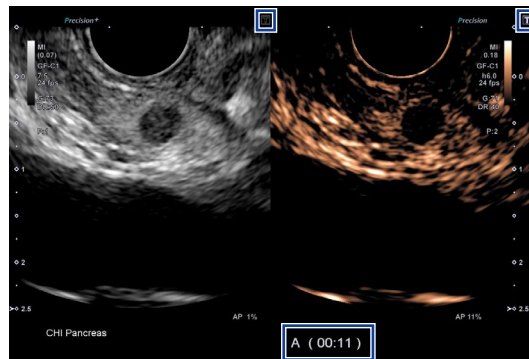


Contrast Harmonic Imaging



Continued

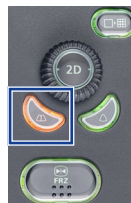
1. Obtain a high-quality B mode image and press **CHI**.
2. Inject ultrasound contrast agent per manufacturer instructions.
3. After injecting the contrast agent and at the start of the saline flush¹, press **Timer A** to start timer.
4. Press **Store** to start recording a clip.
5. Visualize the contrast agent as it washes in and out and assess the enhancement patterns in the image. When ready, press **Store** to end the clip.
6. Stop the timer by pressing **Timer A**.
7. To exit CHI mode, press **CHI**.



Timer A

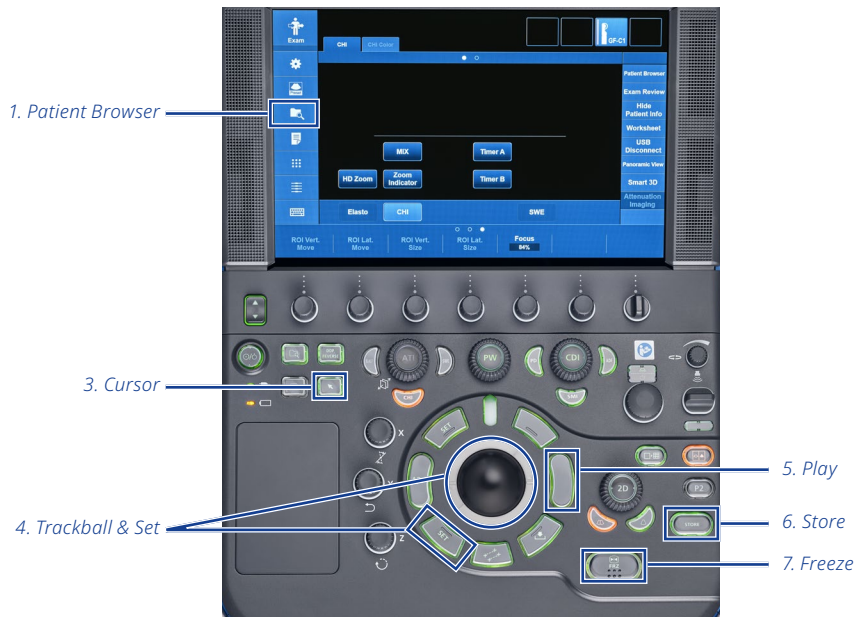
1. Please refer to the administration instructions for the ultrasound enhancing contrast agent being used. A saline flush is required when using LUMASON® ultrasound enhancing agent: https://imaging.bracco.com/sites/braccoimaging.com/files/technica_sheet_pdf/us-en-2021-12-14-spc-lumason.pdf

Canon Medical Systems and Olympus Corporation are not liable for any patient injuries resulting from the use of contrast media.



Tip: To toggle between B mode and CHI images, press Dual Display. The highlighted “T” in the top right of the image indicates the active image.

Contrast Harmonic Imaging: Reviewing and Trimming Clips

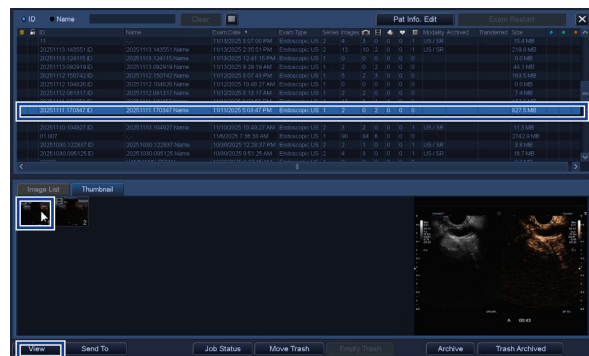


Contrast Harmonic Imaging: Reviewing and Trimming Clips



Continued

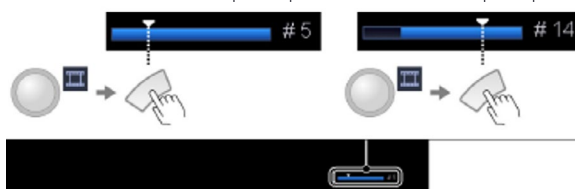
1. Open the **Patient Browser**, select the desired exam and clip (thumbnail) to review.
2. Click **View** to display the clip.
3. To trim the clip, ensure the cursor is deactivated (press **Cursor**).
4. Use the **Trackball** and **Set** to mark the desired starting and ending points of the clip.
5. Press **Play** (see Multifunction Display) to play back the Cine images within the set range.
6. Press **Store** to save the trimmed clip.
7. To exit, press **Freeze**.



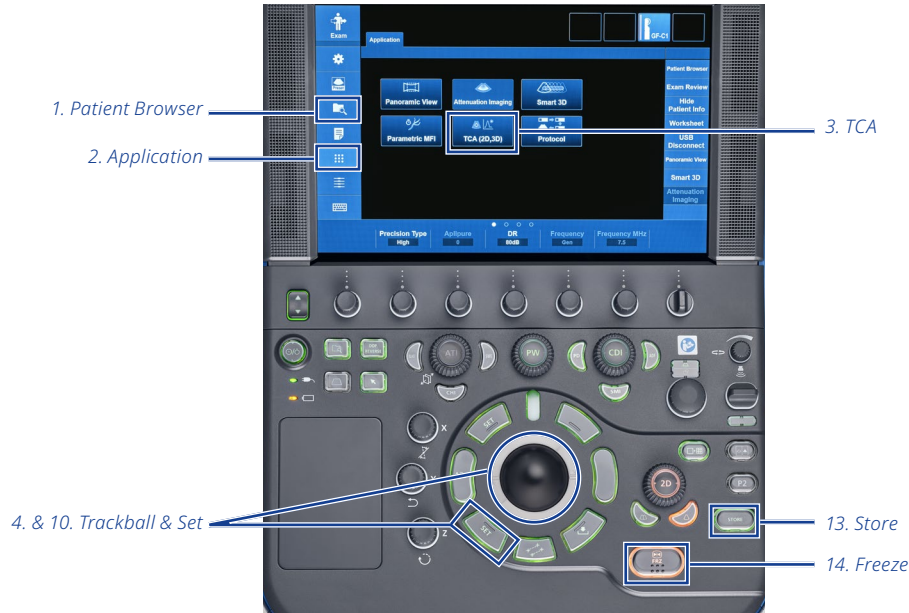
2. **View**

1. Select the loop start point.

2. Select the loop end point.



Contrast Harmonic Imaging: Time Curve Analysis

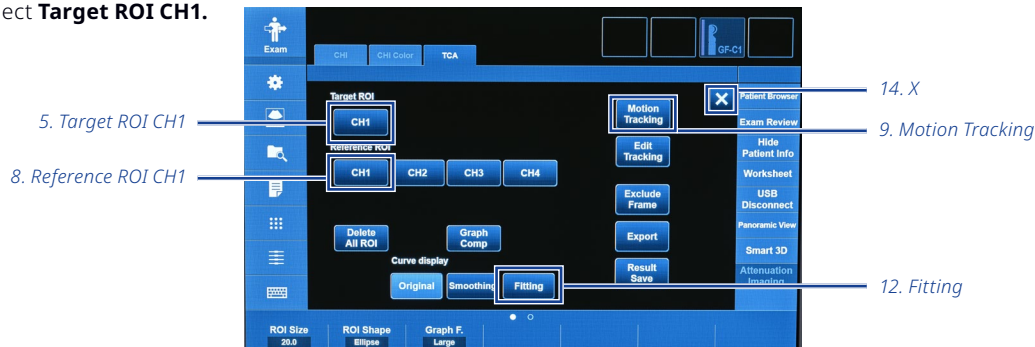
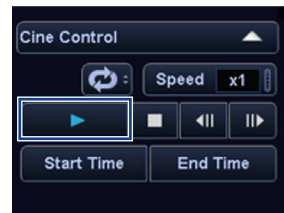


Contrast Harmonic Imaging: Time Curve Analysis



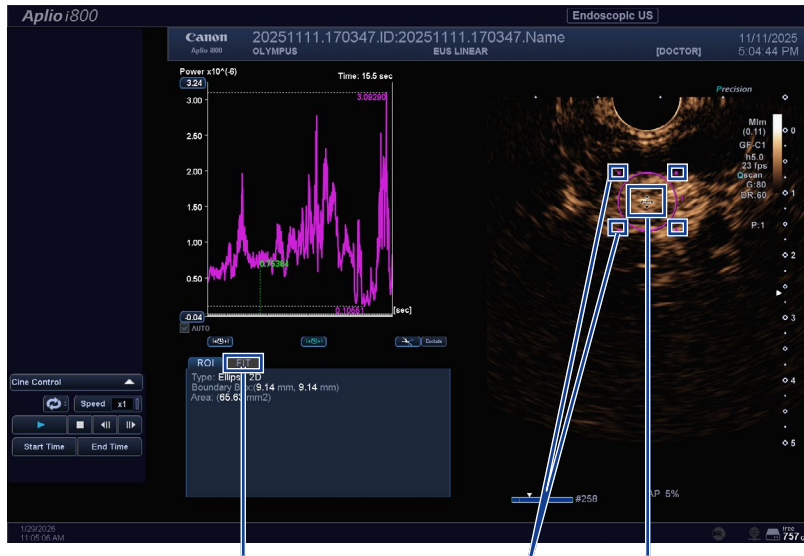
Continued

1. Open the **Patient Browser**, select the desired exam and clip (thumbnail) to review. Click **View** to display the clip.
 - Follow steps for trimming if the clip is over 1,000 frames.
2. Choose **Application**.
3. Choose **TCA**.
4. Use the **Trackball** and **Set** to play the clip and pause on the desired frame (using Cine Controls on the monitor).
5. Select **Target ROI CH1**.



Contrast Harmonic Imaging: Time Curve Analysis

Continued



11. Fit

6. Adjust size and shape of ROI

7. Move the ROI

Contrast Harmonic Imaging: Time Curve Analysis



Continued

6. Use the Trackball and Set to **adjust the size and shape of the ROI.**

- Move the cursor to a fixed point on one of the 4 corners of the ROI and press Set. Adjust the size and shape of the ROI using the Trackball and press Set when complete.

7. Use the Trackball and Set to **move the ROI.**

- Move the cursor to center of the ROI and press Set. Use the Trackball to move the ROI and press Set when complete.

8. Choose **Reference ROI CH1** and repeat steps 6-7.

- Up to 4 reference ROIs can be added.

9. Choose **Motion Tracking.**

- A progress bar will appear while the system updates.

10. Use the **Trackball** and **Set** to play and pause the clip (using Cine Controls on the monitor).

11. Click the **FIT** tab on the monitor.

12. Select **Fitting.**

13. Press **Store** to save the Time Curve Analysis data.

14. To exit, Press the **X** on the touch screen and then **Unfreeze.**

ROI	FIT	T	R1	R2	R3	R4
Parameter						
PI (1.0E-5 AU)		0.0000	0.0000	-	-	-
TTP (s)		0.0000	0.0000	-	-	-
MTT (s)		0.0000	0.0000	-	-	-
Slope (1.0E-5 AU/s)		0.0000	0.0000	-	-	-
Area (1.0E-5 AU.s)		0.0000	0.0000	-	-	-
AreaWI (1.0E-5 AU.s)		0.0000	0.0000	-	-	-
AreaWO (1.0E-5 AU.s)		0.0000	0.0000	-	-	-

Smart 3D



The Smart 3D function generates and displays three-dimensional image data (volume data) using the Cine memory image data acquired.
Only available with GF-UCT180 and BF-UC190F.

6. 4-Frame Layout

4. Smart 3D

5. Slide

7. Store

2., 3. & 8. Freeze

3D images generated using Smart 3D mode must not be used to establish a definitive diagnosis.



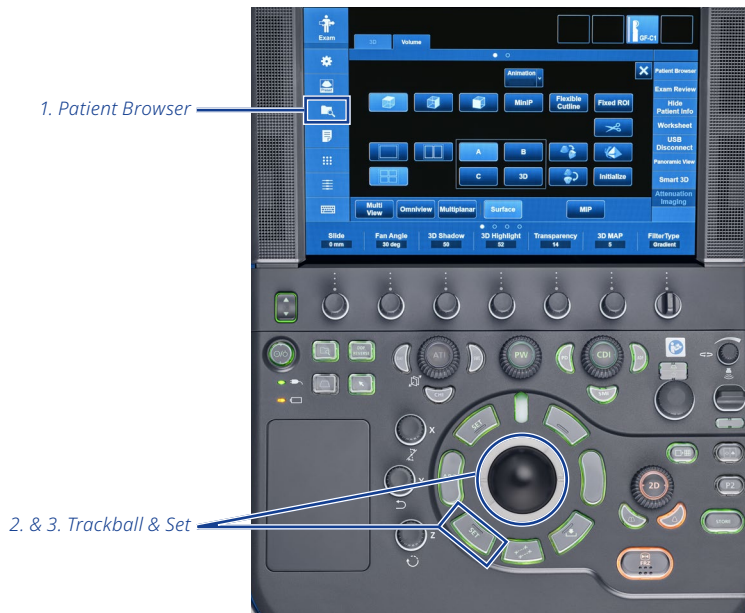
Smart 3D



Continued

1. Obtain a high-quality B mode image.
 - Select a starting point outside the volume of interest.
2. **Freeze** and then **unfreeze** the image.
3. Scan (rotate the scope) through the volume of interest at a constant speed and then press **Freeze**.
4. Select **Smart 3D**.
5. Adjust the **Slide** to 45 mm by rotating the dial.
6. Select the **4-Frame Layout** to assess for a good acquisition.
7. Press **Store** to save the 3D data set.
8. To exit, press **Freeze**.

Smart 3D: Reviewing a 3D Dataset

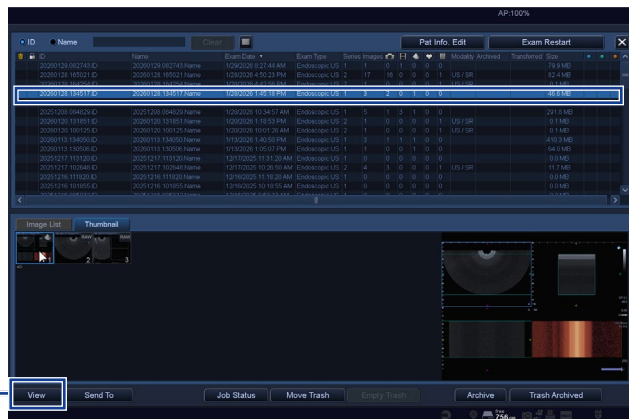


Smart 3D: Reviewing a 3D Dataset

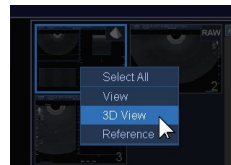


Continued

1. Open the **Patient Browser**.
2. Use the **Trackball** and press **Set** to Highlight the desired patient exam.
3. Use the **Trackball** and press **Set** to select the desired 3D data set in the thumbnails and click **View**.



Tip: When viewing the entire exam (all images and data sets), if the 3D controls do not display on the touch screen, place the cursor on the 3D thumbnail image and right click using the Multifunction button in the 1 o'clock position. Choose 3D View from the dropdown and press Set.



Smart 3D: Multiplanar



Smart 3D: Multiplanar



Continued

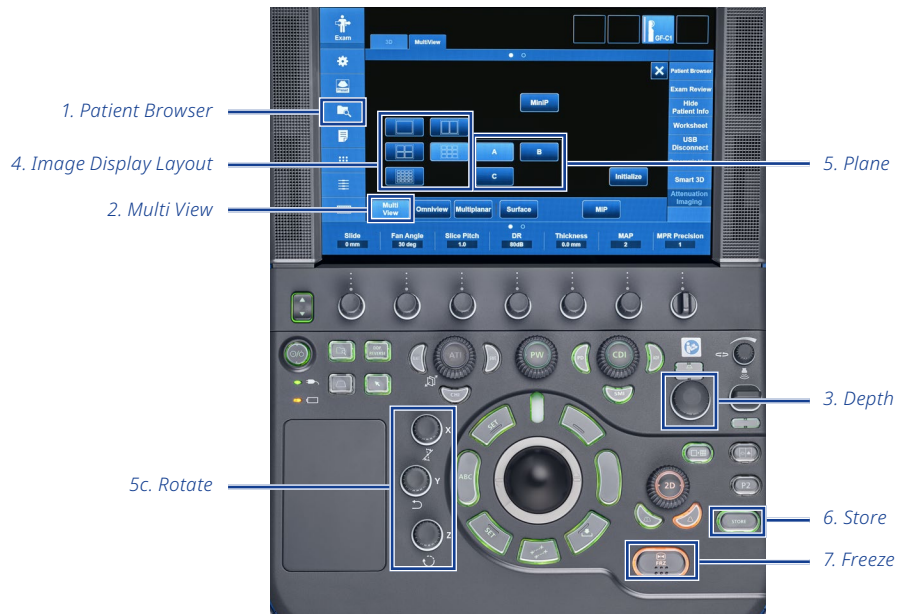
1. Open a 3D data set from the **Patient Browser** using the steps on page 53-54.
 - If 3D data was just acquired and active on the monitor, continue with the next step.
2. Select **Multiplanar**.
3. Choose desired **Plane** (A, B or C) and adjust image as needed. Repeat as necessary for each plane.
 - a. **Pan and Position Plane Intersection:** Use the Trackball and Wheel to scroll/pan image or position the plane intersection within the anatomy. Press the Multifunction button to switch between pan and plane intersection positioning.
 - b. **Rotate:** Rotate the image about the axis with the X, Y, and Z controls.
 - c. **Adjust ROI Size:** Press the Multifunction button and use the Trackball to adjust the ROI size. To switch back to pan and cross positioning press the Multifunction button in the 11 o'clock position.
4. Press **Store** to save the 3D data set.
5. Press **Freeze** to exit.



3a. Pan &
Position

3c. Adjust
ROI Size

Smart 3D: Multi View

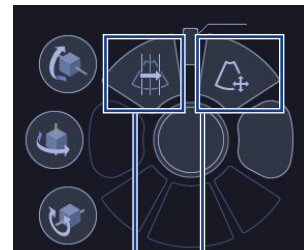


Smart 3D: Multi View



Continued

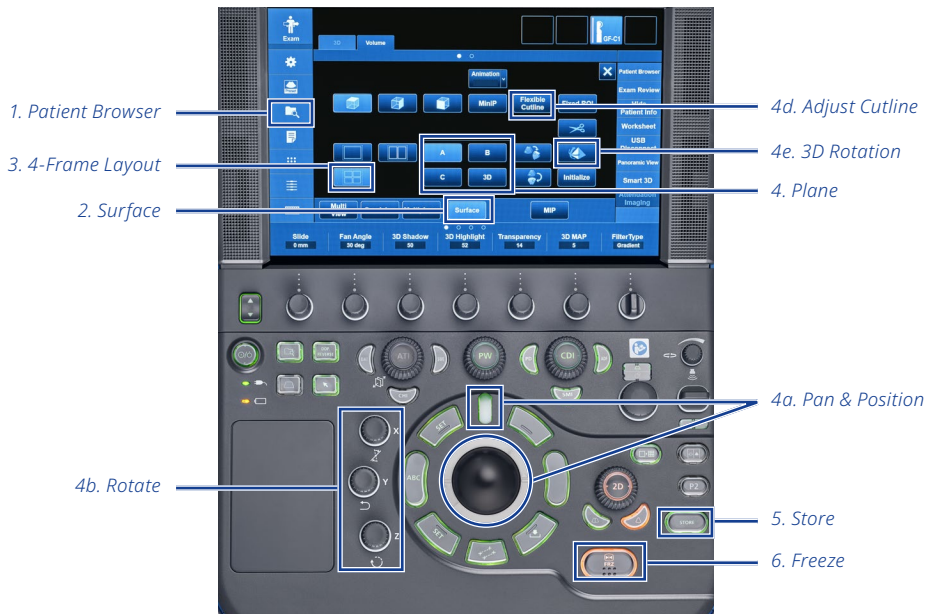
1. Open a 3D data set from the **Patient Browser** using the steps on page 53-54.
 - If 3D data was just acquired and active on the monitor, continue with next step.
2. Select **Multi View**.
3. Increase the **Depth** to ensure the anatomy fills the frame.
4. Choose the desired **Image Display Layout**.
5. Choose desired **Plane** (A, B or C) and adjust image as needed. Repeat as necessary for each plane.
 - a. **Slice Thickness and Guideline Position:** Use the Trackball to increase or decrease the slice thickness and set the guideline position. Press the Multifunction button to switch between slice thickness and position.
 - b. **Pan:** Press the Multifunction button and use the Trackball to pan image.
 - c. **Rotate:** Rotate the image about the axis with the X, Y, and Z controls.
6. Press **Store** to save the 3D data set.
7. Press **Freeze** to exit.



5a. Slice
Thickness &
Position

5b. Pan

Smart 3D: Surface



Smart 3D: Surface

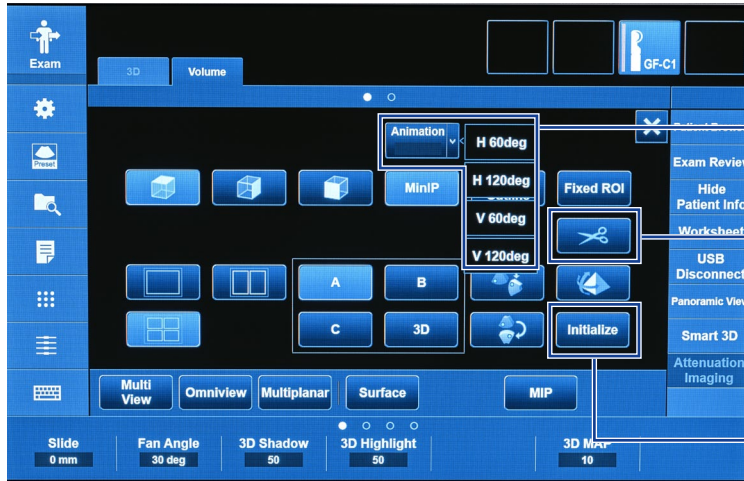


Continued

1. Open a 3D data set from the **Patient Browser** using the steps on page 53-54.
 - If 3D data was just acquired and active on the monitor, continue with next step.
2. Select **Surface**, if not already selected.
3. Select the **4-Frame Layout**.
4. Choose desired **Plane** (A,B, or C) and adjust image as needed. Repeat as necessary for each plane.
 - a. **Pan and Position Plane Intersection:** Use the Trackball and Wheel to scroll/pan image or position the plane intersection within the anatomy. Press the Multifunction button to switch between pan and plane intersection positioning.
 - b. **Rotate:** Rotate the image about the axis with the X, Y, and Z controls.
 - c. **Adjust ROI Size:** Press the Multifunction button and use the Trackball to adjust the ROI size. To switch back to pan and cross positioning press the Multifunction button in the 11 o'clock position.
 - d. **Adjust Cutline:** Touch Flexible Cutline and use the Trackball to move the cutline and view the volume from above.
 - e. **3D Rotation:** When 3D volume is selected, choose the 3D Rotation icon to rotate the entire acquisition or volume in all planes.
5. Press **Store** to save the 3D data set.
6. Press **Freeze** to exit.



Smart 3D: Tips



Animation – Choose the degree and rotation axis for the 3D volume. The animation will start after the playback method is selected.

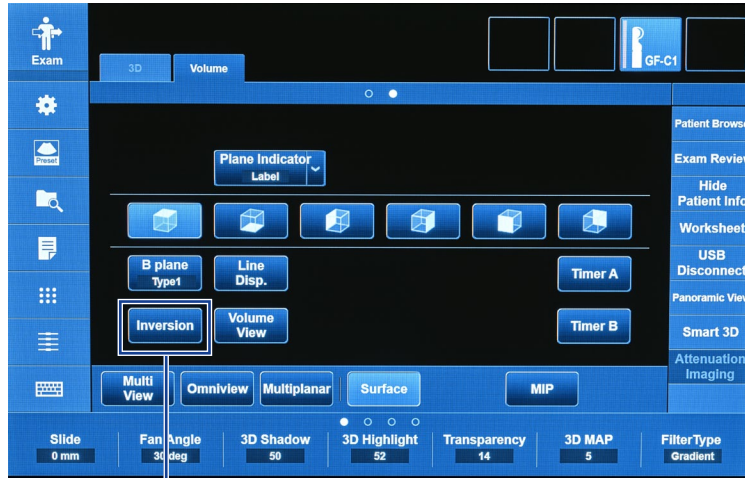
Scissors – Used to cut out a portion of the 3D image. Once selected, the Magic Cut menu will be displayed on the touch screen.

Initialize – Resets the image parameter settings to the default values.

Smart 3D: Tips



Continued



Inversion – Inverts solid and cystic structures in the 3D display.

Panoramic View



Panoramic View creates a single, wide-view image to allow for visualization of anatomy larger than the normal scanning field of view of the transducer. *Only available with GF-UCT180 and BF-UC190F.*

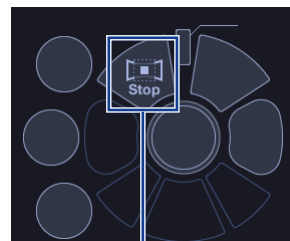
2. Panoramic View

6b. Pan & Zoom

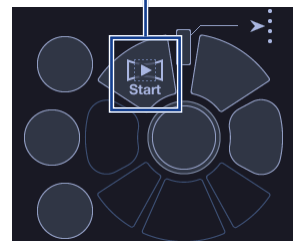
8. 2D

7. Store

3. Start



5. Stop or Freeze



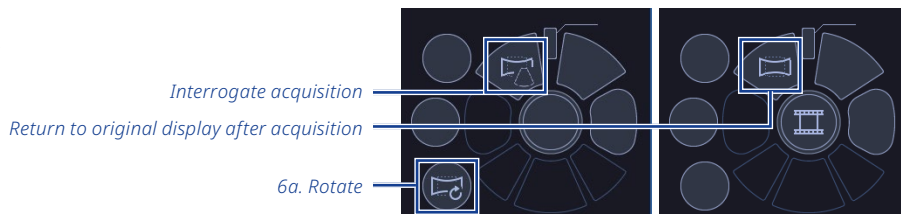
Use Panoramic View images only as reference data, not for definitive diagnosis.

Panoramic View



Continued

1. Obtain a high-quality B mode image with the scope placed at the beginning of the anatomy.
2. Press **Panoramic View**.
3. Press **Start** (see Multifunction Display) to begin the acquisition.
4. Pull the scope to scan through the anatomy.
5. To end the acquisition, press **Stop** (see Multifunction Display) or **Freeze**.
6. Adjust image as needed.
 - a. **Rotate**: Turn the Z Multifunction dial.
 - b. **Pan/Zoom**: Press down on the Depth / Zoom button and use the Trackball to pan the image or turn the dial to zoom. Press down on button again to stop pan and zoom.
7. **Store** the acquisition.
8. To exit, press **2D**.

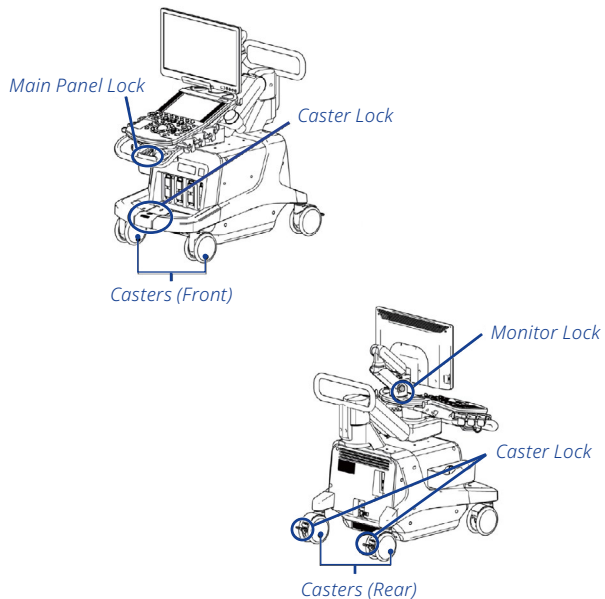


Ergonomics

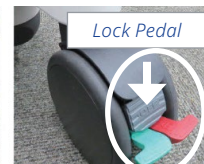


- Releasing and Locking the Casters..... 66
- Adjusting the Main Panel 67
- Locking the Main Panel69

Releasing and Locking the Casters



OFF



Directional Lock



Total Lock



Adjusting the Main Panel



Horizontal Movement

1. Pull the near/far slide lever to unlock near/far sliding.
2. The main panel can slide toward and away from you while the lever is pulled.
3. After setting the panel to the desired position, release the lever to engage the lock.
 - The main panel can also pivot while it is sliding near or away.



Adjusting the Main Panel



Continued

Rotational Movement

1. When the vertical movement/pivoting lever is pulled, the pivoting movement lock is released.
2. While pulling the lever, adjust the rotational position.
3. After setting the panel to the desired position, release the lever to engage the lock.

Vertical Movement

1. While the system power is ON, the vertical position can be adjusted by pressing the arm movement switch on the main panel.



Vertical Movement



Rotational Movement

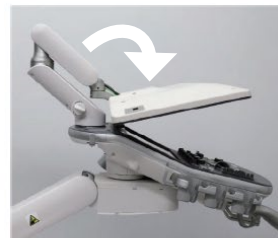
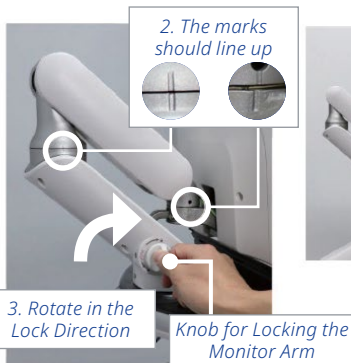
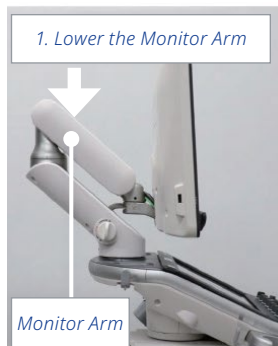
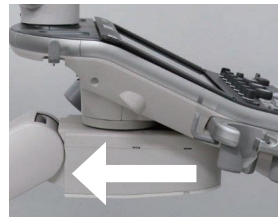


Rotational Movement

Locking the Main Panel



1. Pull the near/away slide lever to release the near/away to unlock.
2. Slide the main panel toward the rear of the system and then engage the left/right rotation lock.
3. Secure the monitor arm and then gently fold the monitor forward.



This document is for quick reference only. Please refer to the relevant User's Manuals 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.

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