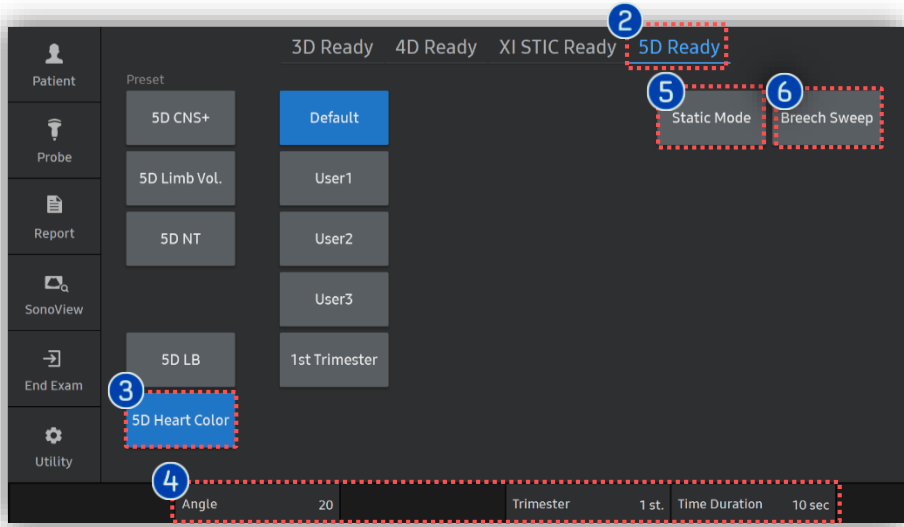




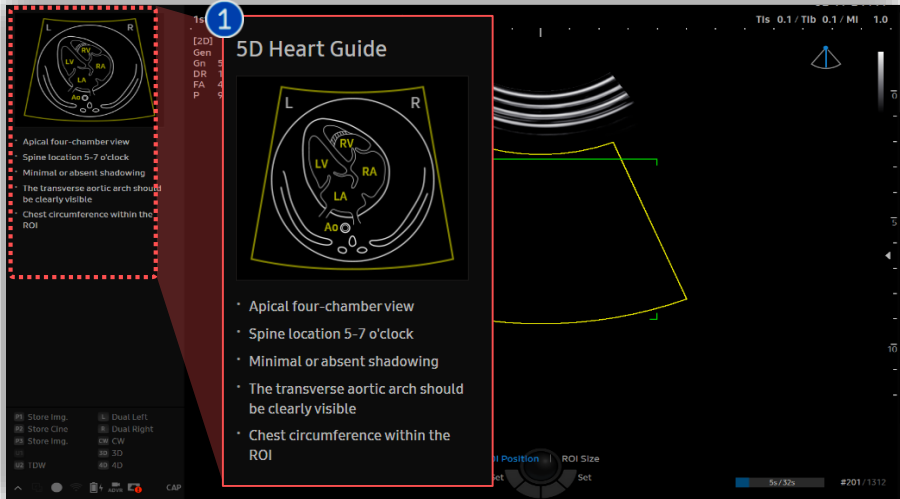
5D Heart Color™

# 1. Activate 5D Heart™ – 3D Button



1	3D Button	Press [3D] button on the control panel.
2	5D Ready	Tap [5D Ready] on the touch screen.
3	5D Heart Color	Tap [5D Heart Color] on the touch screen to activate 5D Heart color.
4	Parameters	3D [Scan Angle], [Trimester] and [Time Duration] are adjustable.
5	Static Mode	To take lesser acquisition time, you may use [Static Mode] which provides a static image of 5D Heart views. <i>(Static mode is available only 5D Heart. Can not use in 5D Heart Color)</i>
6	Breech Sweep	For a breech baby, it allows a scan to be taken from the head to abdomen without changing the probe direction.

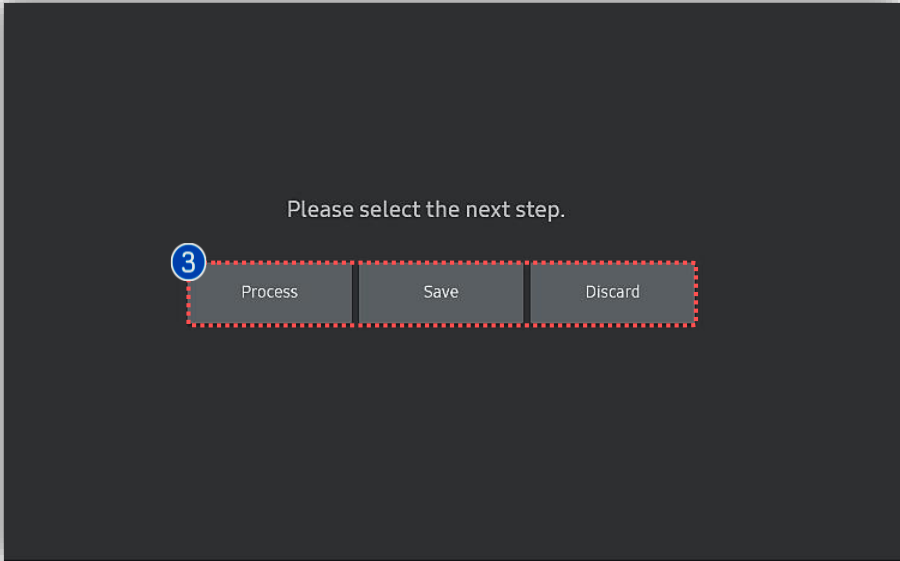
# 2. Acquire 3D Volume data



**1 Scan**

For more accurate result, try to get the image as guide.

- Apical 4 chamber view
- Spine location between 5-7 o'clock
- Minimal or absent shadowing
- Transverse aortic arch should be clearly visible.
- Chest circumference within the ROI



**2 Acquisition of 3D images**

Press [Freeze] or [Set] on the control panel to start acquisition of 3D images.

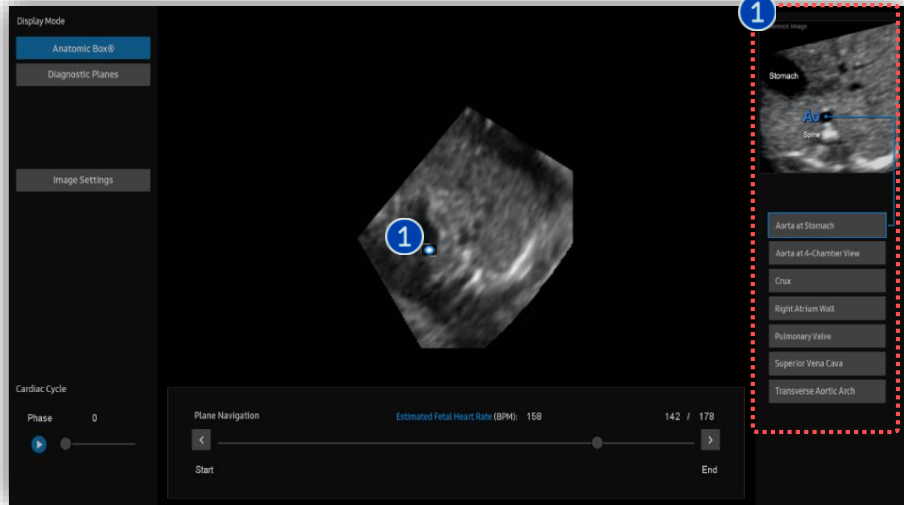
**3 5D heart Acquisition type**

Select one of the 5D Heart acquisition type on the touch screen.

Process	After saving acquisition data, enter 5D Heart mode with the scanned data.
Save	Store acquisition data and go back to 3D standby mode.
Discard	Go to 3D Standby mode without saving the data if the scanned data is incomplete due to the fetus movement.

5D Heart Color™

# 3. Specify marking points (1)

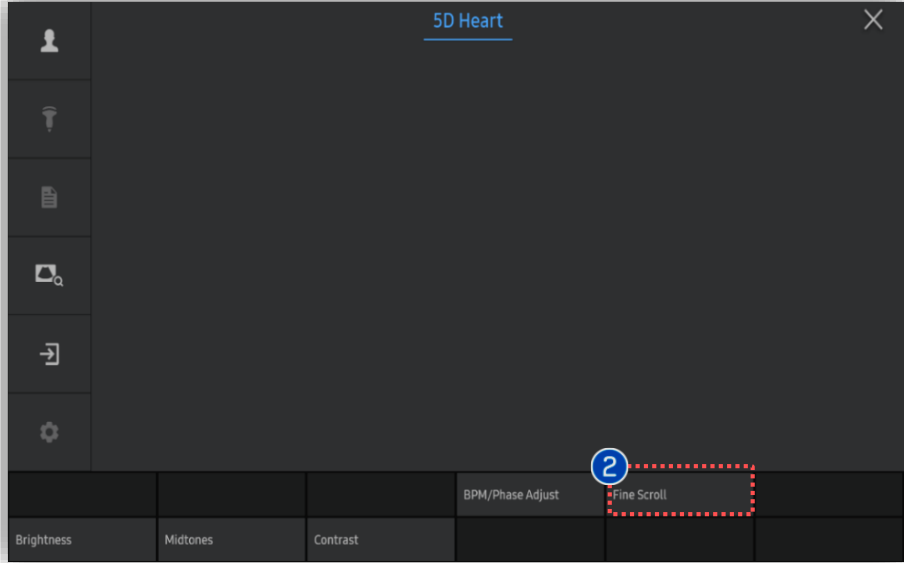


1 Mark

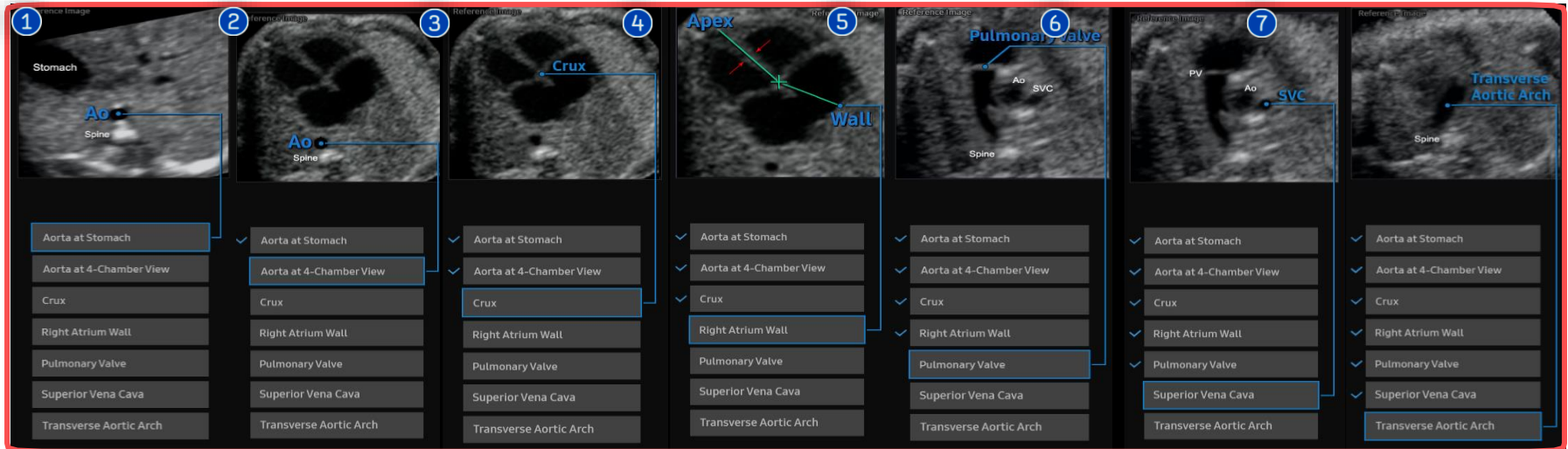
To get 9 standard views of fetal heart, you should select 7 landmarks. On the right side, it provides guide image. Place the cursor on the point area and press set button and then system automatically display next image to select next point.

2 Fine Scroll

Scroll exact frame manually.



## 3. Specify marking points (2)



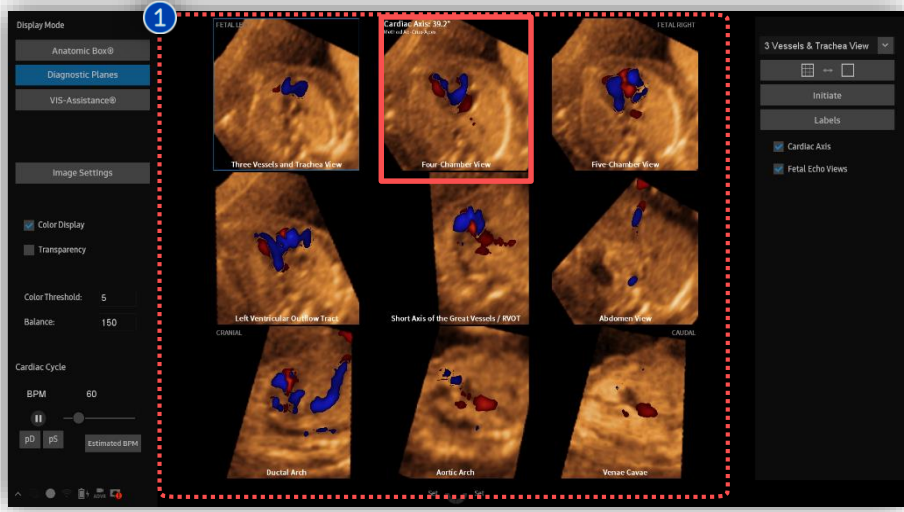
### 7 Points

You should specify 7 landmarks of anatomical structures to get 9 standard views of fetal heart.

- ① Aorta at Stomach
- ② Aorta at 4-Chamber View
- ③ Crux
- ④ Right Atrium Wall
- ⑤ Pulmonary Valve
- ⑥ Superior Vena Cava
- ⑦ Transverse Aortic Arch

5D Heart Color™

# 4. Diagnostic Planes (1)



**1 View Select**  
Select one of the 9 standard views to rotate the image or move its reference slice.

**2 Rotation**  
You can rotate the selected image around the X, Y and Z axis by using the [X], [Y] and [Z] dial-button on the control panel.

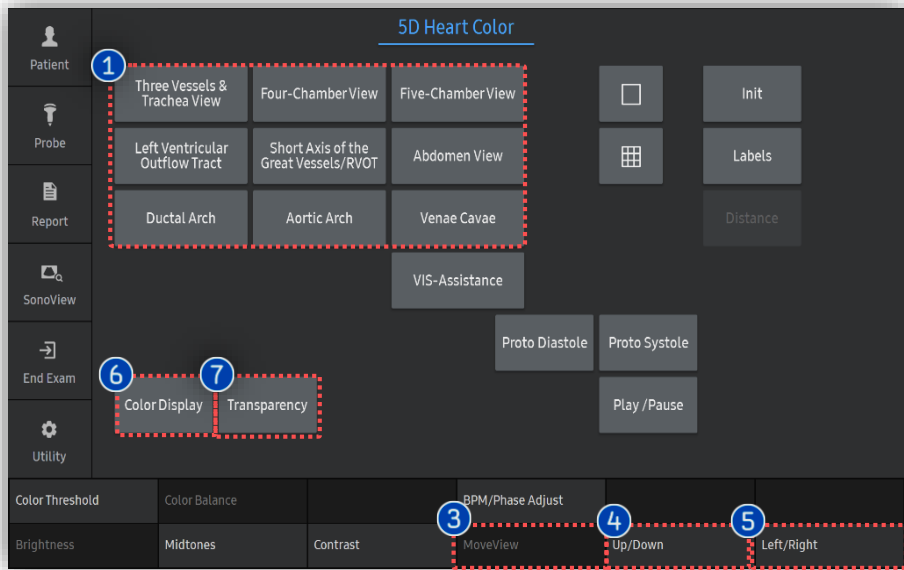
**3 MoveView**  
Adjust the reference slice of the selected view.

**4 Up/Down**  
Move all the images up and down by using the dial-button.

**5 Left/Right**  
Move all the images left and right by using the dial-button.

**6 Color Display**  
When it is selected, blood flow is displayed.

**8 Zoom**  
Magnify all the images by using [Zoom] button on the control panel.



**1** Three Vessels & Trachea View, Four-Chamber View, Five-Chamber View

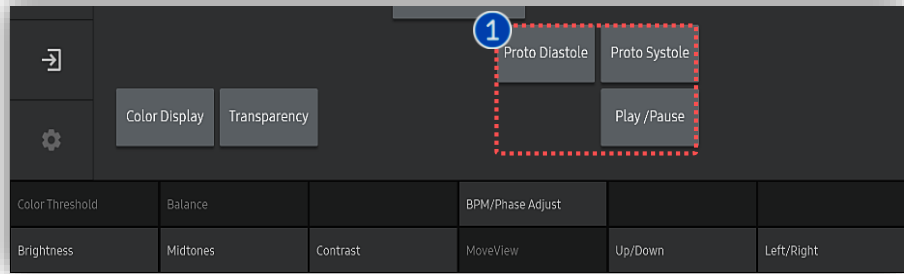
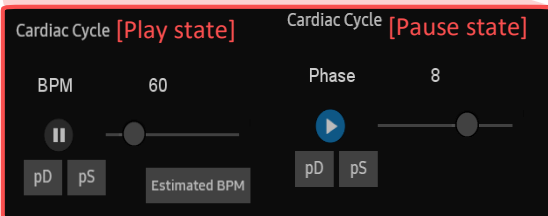
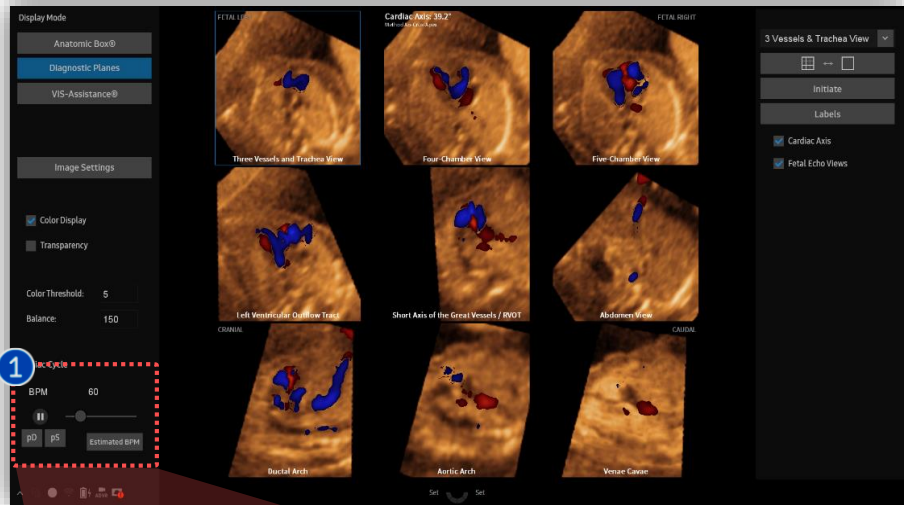
Left Ventricular Outflow Tract, Short Axis of the Great Vessels/RVOT, Abdomen View

Ductal Arch, Aortic Arch, Venae Cavae

Color Display, Transparency, MoveView, Up/Down, Left/Right


5D Heart Color™

# 4. Diagnostic Planes (2)



- pD/pS (Proto Diastole/ Proto Systole)  
Press [pD] or [pS] button to move the cine position to diastolic phase or systolic phase.

pD	Cine Position moves to diastolic phase.
pS	Cine Position moves to systolic phase.

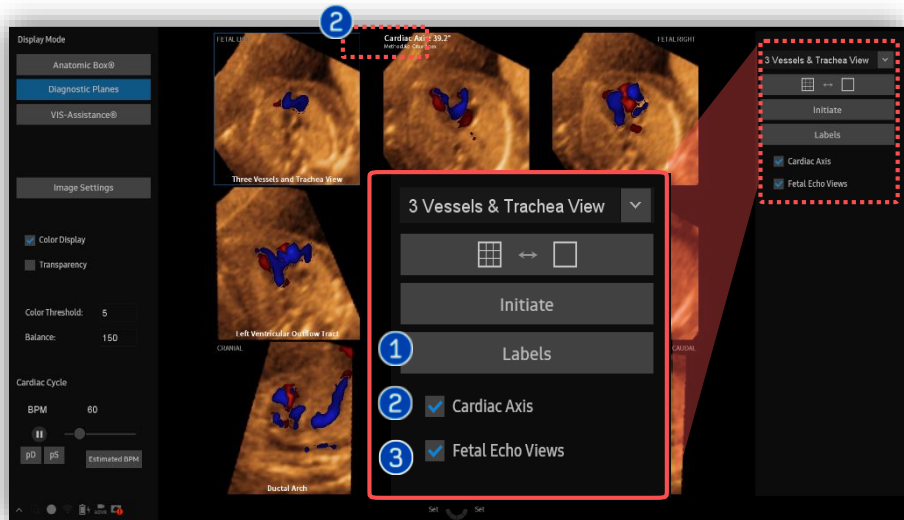
- BPM/Phase adjust   
Adjust the speed of playback with [BPM] button and review the entire cardiac cycle with [Phase] button. Press button to switch [BPM] mode to [Phase]

### 1 Cardiac Cycle

BPM	The heart rate shown is not the original cardiac frequency of the fetus. It is the cycling frequency of the display that purposely is set at 60 BPM (Beats per Minute).
Phase	It is to browse the entire cardiac cycle (Systole-Diastole).
BPM (Estimated)	The system is played a cine as estimated BPM by acquired STIC data.

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# 4. Diagnostic Planes (3)



1 Label

When it is turned 'On', the anatomical labels will be displayed at the anatomical structure.

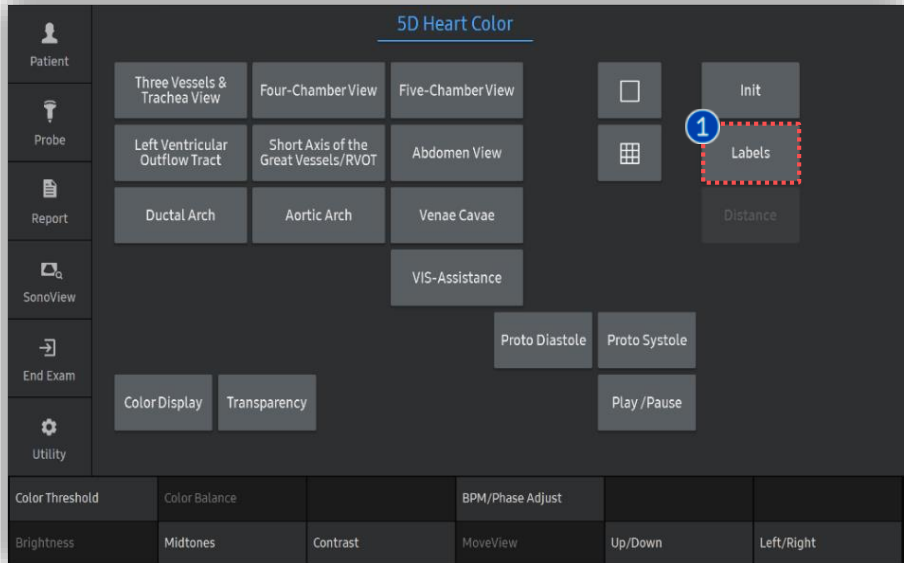
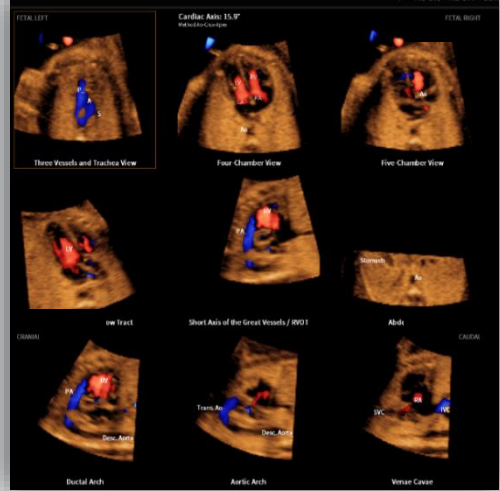
2 Cardiac Axis

Display 'Cardiac Axis' angle of Aorta-cruix and apex.

**Cardiac Axis: 23°**  
Method Ao-Cruix-Apex

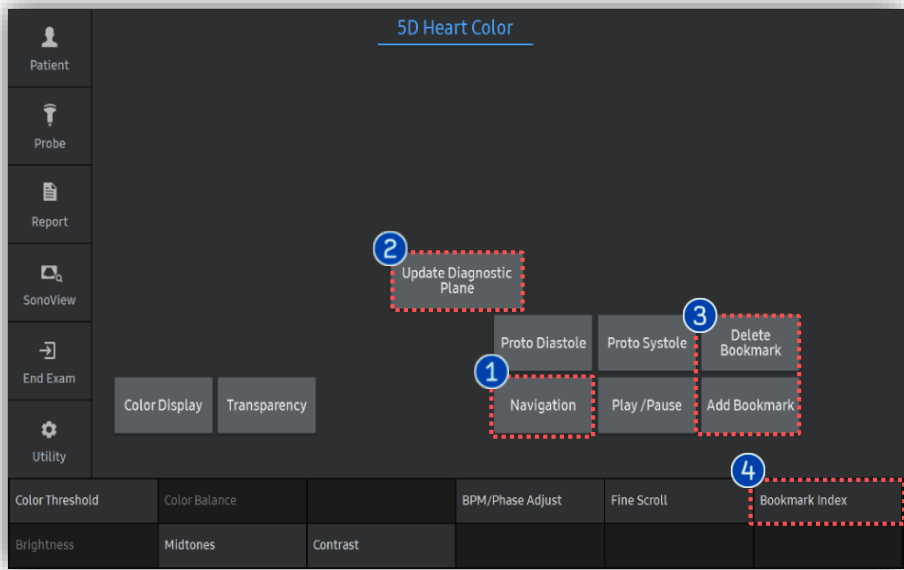
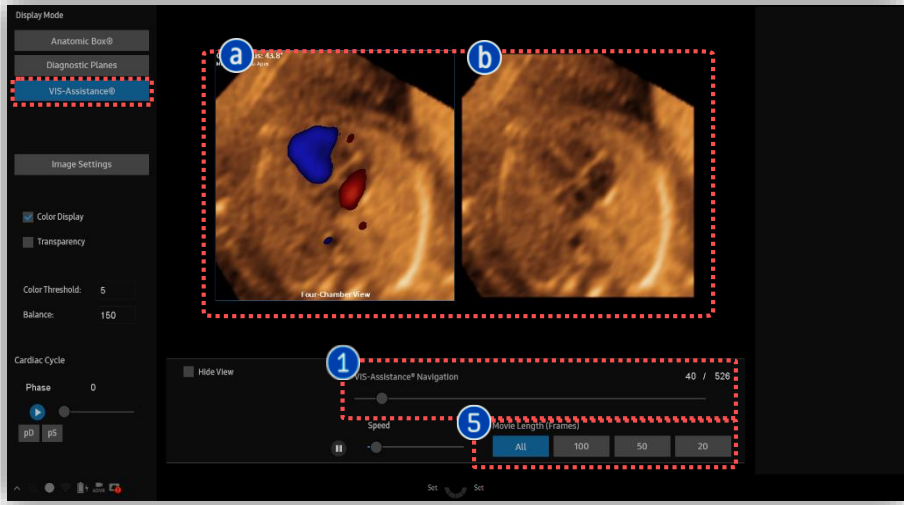
3 Fetal Echo Views

Selecting the check box, the name of all fetal echocardiography views, Left/Right sides of the fetus and Cranial/Caudal direction will be displayed at the respective location.



5D Heart Color™

# 5. VIS-Assistance®



**VIS-Assistance® (Virtual Intelligent Sonography Assistance)**  
 Virtual Intelligent Sonographer Assistance (VIS-Assistance®) is an operator independent tool that allows to provide more appropriate images of each of the nine cardiac Diagnostic Planes.

- a** Left image: Selected view among nine cardiac Diagnostic plane
- b** Right image: Navigation views of surrounding structure

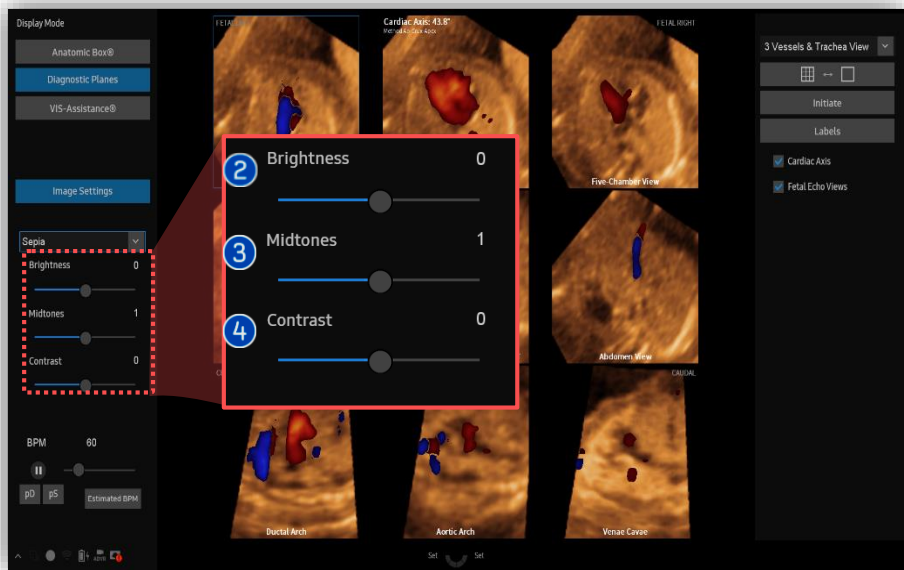
<p><b>1</b> Navigation</p>	<p>Find more appropriate view within entire cine on the Right image (b) by using scroll button.</p>
<p><b>2</b> Update Diagnostic Plane</p>	<p>Press the selected plane on the Diagnostic Planes template to replace extracted plane. (※ This function is only available when Cine Play is paused.)</p>
<p><b>3</b> Add/Delete Bookmark</p>	<p>Bookmark a plane to supplant or delete your Bookmark. (※ This function is only available when Cine Play is paused.)</p>
<p><b>4</b> Bookmark index</p>	<p>You can put the Bookmark on a view up to 4 as candidates of extracted view.</p>
<p><b>5</b> Movie Length (Frames)</p>	<p>Select the number of Cine frames for movie length.</p>

5D Heart Color™

# 6. Image Setting



1 Image Setting	The selected item will be applied to the image color.
2 Brightness	Adjust the brightness of the image.
3 Midtones	The left side of the slide indicates the most emphasized soft tissues and enhances the representation of the diaphragm.
4 Contrast	Adjust the contrast of the image.



- The features, options may not be commercially available in some countries.
- Sales and shipments are effective only after the approval by the regulatory affairs. Please contact your local sales representative for further details.
- This Quick guide does not include all of the details of instruction, for more detail, please refer to V series User Manual.
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- Disclaimer: Some Images in this content were obtained from other system.

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