# ViewFlex<sup>™</sup> Xtra ICE Catheter **Positioning Reference Manual** St. Jude Medical

## ViewFlex™ Xtra ICE Catheter

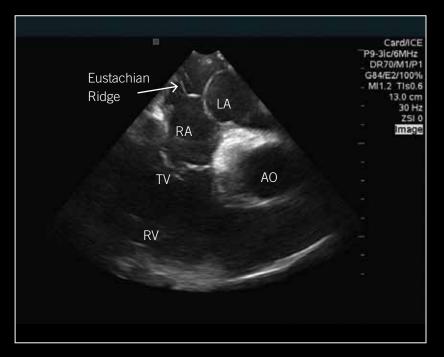
The ViewFlex Xtra ICE Catheter, which is compatible with the ViewMate™ Z and ViewMate™ II ultrasound consoles, provides visualization of cardiac structures and blood flow within the heart during electrophysiology and interventional cardiology procedures. This "Positioning Reference Manual" can be used as a guide to understanding the technique of ICE imaging. The diagrams and ultrasound images represented in the following text display the approximate cardiac anatomy seen during a typical ICE overview of the heart. Precise movements in catheter angulations and rotations, for a specific view, may differ with individual cardiac anatomy.

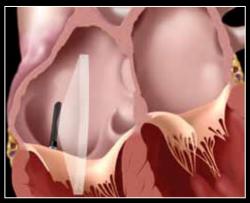
## Index

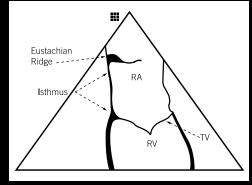
- 1. Eustachian Ridge
- 2. Home View
- 3. Aorta, Right Ventricular Outflow Tract
- 4. Coronary Sinus
- 5. Intra-Atrial Septum, Fossa Ovalis
- 6. Mitral Valve, Left Atrial Appendage
- 7. Left Pulmonary Veins
- 8. Right Pulmonary Veins
- 9. Superior Vena Cava, Right Atrium
- 10. Left Ventricle Long Axis

# Eustachian Ridge

• As the ICE catheter enters the right atrium, the eustachian ridge is the first anatomical structure that can be visualized.

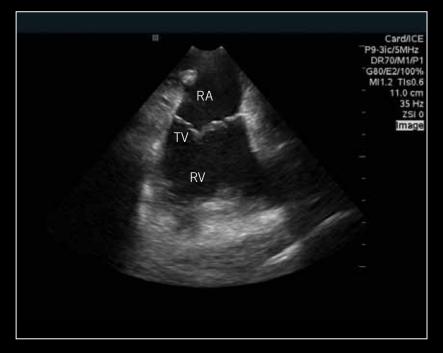


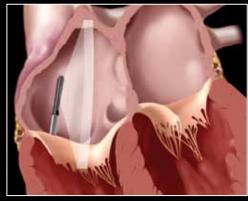


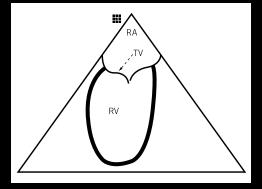


# Home View

- Continue advancing the catheter to the level of the mid-right atrium
- The ultrasound array should be facing anteriorly
- There is no flexion on the catheter

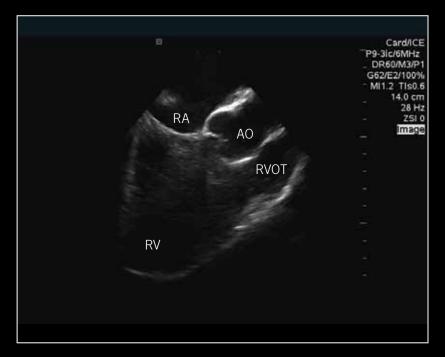


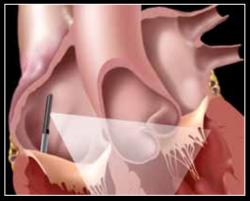


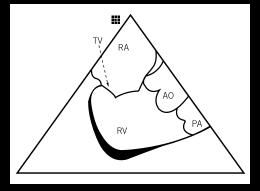


# Aorta, Right Ventricular Outflow Tract

- From the "Home View," rotate the catheter clockwise
- No flexion on the catheter is necessary

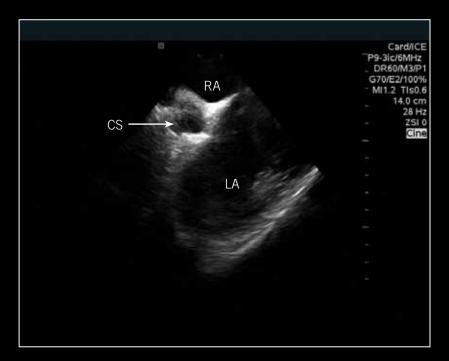


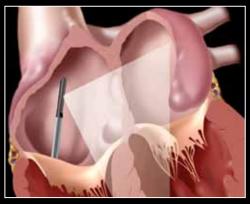




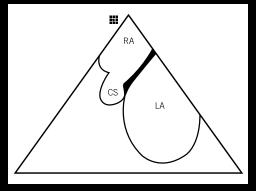
# **Coronary Sinus**

 Gradually rotate the catheter clockwise to visualize the ostium of the coronary sinus



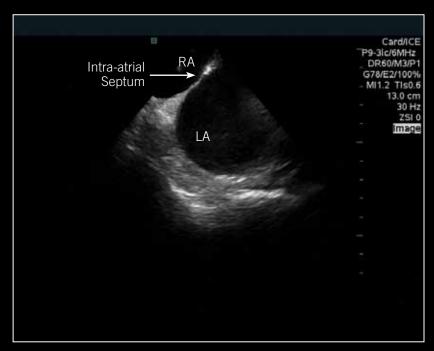


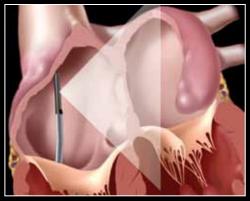
Orientation



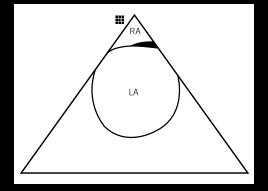
# Intra-atrial Septum, Fossa Ovalis

- Rotate the catheter clockwise
- Posterior flexion can be used if necessary to view more of the right atrium



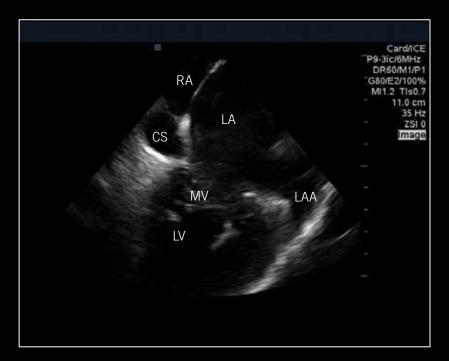


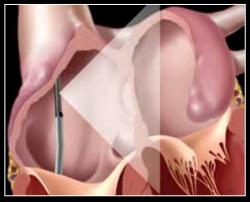
Orientation



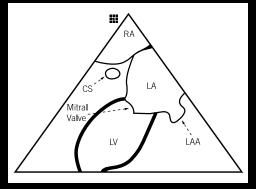
# Mitral Valve, Left Atrial Appendage

• From the "Intra-atrial Septum View," gradually rotate the catheter clockwise





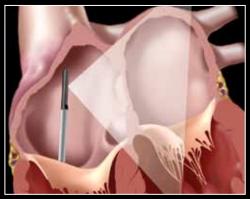
Orientation

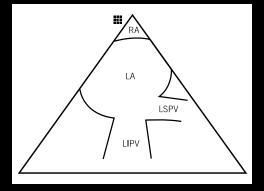


# Left Pulmonary Veins

- From the "Left Atrial Appendage View," remove the posterior flexion applied to the catheter
- Slightly rotate the catheter clockwise
- Color Doppler can be used to identify the left pulmonary veins

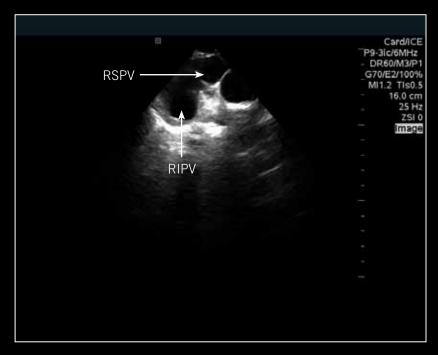


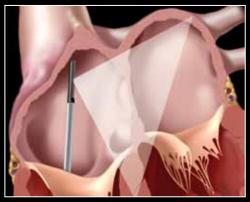




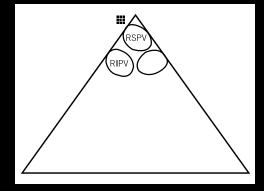
# Right Pulmonary Veins

- Rotate the catheter clockwise past the left pulmonary veins
- Advance the catheter slightly to obtain a better view of the right pulmonary veins





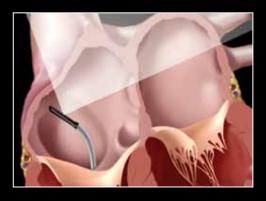
Orientation

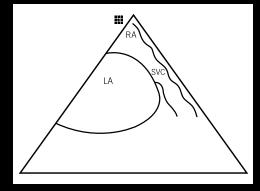


# Superior Vena Cava, Right Atrium

- Place the catheter in the mid-right atrium
- Flex the catheter posteriorly
- If necessary, rotate the catheter counter-clockwise to obtain a better view of the superior vena cava and right atrium

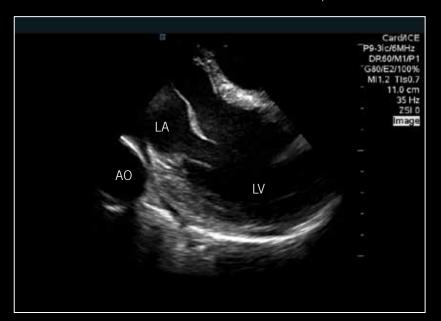


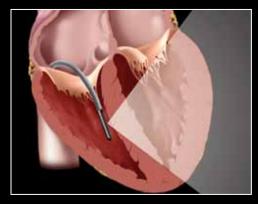


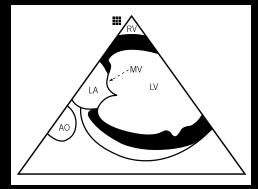


## Left Ventricle Long Axis

- Re-establish Home View
- Once the tricuspid valve is clearly visible, flex the catheter anteriorly (toward tricuspid valve)
- Utilizing fluoroscopy and ultrasound advance the catheter past the tricuspid valve annulus into the right ventricle and then remove anterior flexion
- Rotate the catheter clockwise until the intraventricular septum comes into view







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#### Rx Only

Brief Summary: Please review the Instructions for Use prior to using these devices for a complete listing of indications, contraindications, warnings, precautions, potential adverse events, and directions for use.

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