






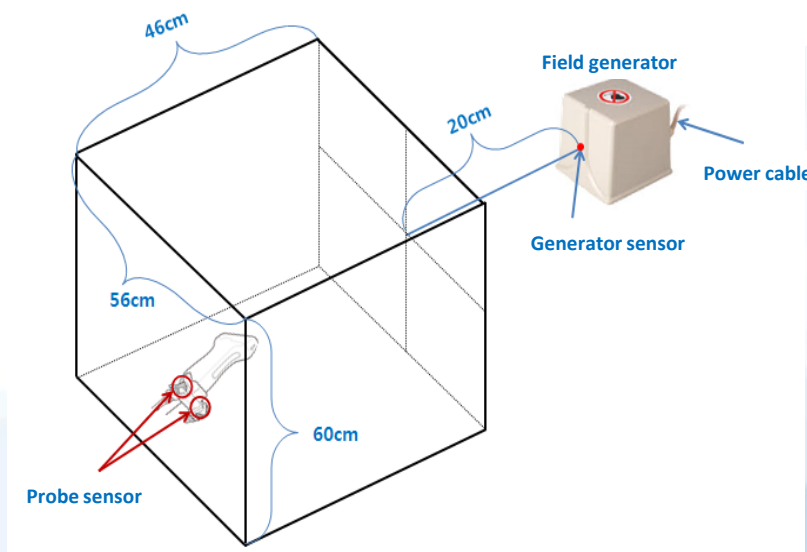
RS85 Prestige S-Fusion™ for Prostate

The components

<p>Field Generator (Transmitter)</p>	<p>Generates an electromagnetic field to find the location of sensor.</p>	
<p>Probe Sensors (1EA)</p>	<p>Detects the strength and orientation of the generated electro-magnetic field, and relays the information to the tracking unit.</p>	
<p>Tracking Bracket</p>	<p>Allows mounting of probe sensors onto the probe.</p>	
<p>Tracking Unit</p>	<p>Calculates the position and orientation of the probe and the biopsy needle based on the data from the sensors. It also displays this information on the monitor.</p>	
<p>External Marker</p>	<p>Helps to compensates for patient movement by placing it on the patient during data acquisition and S-Fusion procedure which helps to find and track patient's position more closely.</p>	

Precautions

- Do not operate the field generator within a radius of 20cm with a pacemaker or defibrillator installed.
- Do not expose the sensor to strong magnetic fields such as MRI devices. The sensor may be magnetized.
- There must be no iron content within 30 cm of the work space and field generator.
- If the patient is using an iron bed, install the field generator above the bed at least 2cm away.



How it works

> Register the patient info.

- [Patient] tab > Enter patient info. > Click [Register]

> Import MR datasets **!** *Accuracy is guaranteed for MR T2 image only*

① Drive

- [Q/R] tab > Select [Drive] > Press [Drive Import] > Select data > Click [Import] > 'Retrieval Manager' window > Select data (Check box) > Press [Assign]

② Server

- [Q/R] tab > Select [Server] > Select Modality type > Enter patient info. > Press [Search] > Select data > Press [Retrieve] > 'Retrieval Manager' window > Select data (Check box) > Press [Assign]

> Start S-Fusion for Prostate

- Select probe & preset (EA2-11AR, EA2-11AV, E3-12A > Urology > Prostate) > Press [S-Fusion]
! *It takes about 10 sec to connect the generator to the tracking unit*
- Check strength of the signal bar / Press [Series List] and select a series / Adjust MR image ([W.Width], [W.Level])

> Registration mode : Segmentation + Registration **!** *For [Registration] method, start with ②*

① Segmentation

- Auto (Press [Segmentation + Registration] > [Auto] mode automatically activated as a default)
 - Check volume result / Check border line of the prostate ([Slice] knob button) / Edit border line
 - Press [Complete]
- Add Target (Press [Segmentation + Registration] > Press [Add Target])
 - Useful when using [Biopsy Mode]
 - Add [+] marker on the area for biopsy

! *Three options are only available after Segmentation : Auto Calibration / Deformation / Biopsy Mode*

② Registration

- Scan the prostate to match the MR image > Adjust the MR plane in Horizontal and Vertical mode ([Change] button, [Angle] knob button) > Press [Set] button

> Calibration

① Auto Calibration

- Automatically matches the images in real time

② Point Calibration

- Place the marker on the landmark in both US and MR image

③ Plane Calibration

- Adjust the MR plane in Horizontal and Vertical mode ([Change] button, [Angle] knob button)

! *To overlap US image on the MR image, press [Overlay]*

! *To compensate the deformed shape of the prostate caused by probe pressure on MR image, Press [Deformation]*

➤ Add Marker

- Press [Add Marker] > Place the pointer either US or MR image
- Flag the location of a point of interest

➤ Biopsy

- ① Biopsy On/Off
 - Biopsy guideline appears on US images
- ② Auto/Manual Marking
 - Mark the biopsy point and record the needle pathway
- ③ Biopsy Mode
 - Display 3D modeling of biopsy

➤ External Marker

- Connect External Marker sensor to tracking unit number 4
- Attach the marker to patient's hip bone or thigh region