57Y male. Power Doppler image of the prostate. Moderate BPH can be seen together with flow mainly around the peripheral zone.

72Y male. Left lateral prostatic lesion. The 3-D image shows the lesion in the transverse and coronal P-A projection.

Simultaneous biplane: the urologist's gold standard for prostate biopsy

• High frequencies for excellent near field scanning

• Simultaneous biplane feature invaluable for orientation

• 3-D and harmonic imaging for easier identification of lesions

Type 8808
The world's best-selling prostate transducer
Accurate staging is critical to the management of prostate cancer, particularly when selecting candidates for either a radical prostatectomy or low-dose brachytherapy. The 8808 is the prostate biopsy gold standard, with features like simultaneous biplane, high-frequency, 3-D and harmonic imaging capabilities, to help with more effective staging.

Ensuring appropriate spacing during prostate biopsy procedures is difficult. By far the most common method of detecting prostate tumors is transrectal ultrasound combined with random multiple biopsies. Single plane imaging does not provide a sense of depth and space, often making it quite difficult to target key areas and to know exactly where the biopsy is taken from.

Unique simultaneous biplane imaging is invaluable for orientation and correct biopsy spacing. The 8808’s simultaneous biplane capabilities generate real-time images of both the sagittal and transverse planes, which are invaluable for orientation. The transverse image provides a clear indication that the needle is in the correct area, for quicker biopsies and added security.

Understaging of prostate cancer occurs up to 50% of the time. All conventional staging methods lack sensitivity, and understaging of up to 50% of cancers has been reported.

The 8808’s harmonic imaging feature enhances tissue differentiation. Harmonic imaging appears to be a promising way of improving the diagnostic yield of prostate TRUS, possibly resulting in earlier diagnosis and better staging. The True Echo Harmonics feature on the 8808 enhances any hypoechoic structures and suppresses hyperechoic phenomena, providing better visualization of hypoechoic lesions.

The extent of capsular disruption can be difficult to assess using 2-dimensional imaging. A key requirement of staging is to identify if the disease has penetrated what is known on ultrasound as the prostatic capsule. Using 2-dimensional imaging to visualize a 3-D anatomy and disease process has certain spatial limitations and therefore limited success in staging prostate cancer.

Accurate detection of capsular disruption could help to stage disease more accurately and prevent ineffective surgery. Visualization of lesions in 3 planes appears to allow improved assessment of capsular disruption, because it overcomes spatial limitations by obtaining images in a controlled and precise manner. Furthermore, the 8808’s prostate 3-D imaging is the best means of identifying peripheral and central zones and enlargement of the transition zone, and provides clearer visualization of lesions which may have gone undetected in other modes.

Specifications
- Frequency range: 6 - 10 MHz
- Focal range (typical): 5-50 mm
- Sector angle: 127°
- Contact surface: 5 x 19.6 mm
- Disinfection: Immersion
- Physical data:
  - Length: 320 mm
  - Width: 32 mm
- Weight (approx.): 250g


An 8508 transducer is also available for use with the 2000 scanner series.