• Dedicated neurosurgical ultrasound system with a simple workflow and small footprint
• Fully sterilizable neurosurgery transducers that can make direct contact with the brain and dura
• Immediate, auto-optimized imaging using the No-touch Autogain and Auto Focus features
• Exclusive digital integration with Brainlab neuronavigation systems for full plug & play experience
Ultrasound can improve neurosurgical procedures by helping you navigate and identify lesions and anatomical structures in real-time.

The bk5000 provides immediate, auto-optimized images that allow you to see the information you need, faster.

**Visualization and Planning**
Neurosurgical intraoperative ultrasound:
- works in real-time to help provide a complete overview of brain/lesion anatomy and lesion localization.
- can assist in the identification of brain shift after pre-operative scans.

**Tumor Resection: Evaluation and Mapping**
Neurosurgical intraoperative ultrasound:
- helps surgeons spare eloquent areas of the brain during tumor resection surgery.
- allows real-time guidance on extent of resection during surgery, while brain tissue characterization can assist in the assessment of residual tumor.

**Shunt Placements**
Neurosurgical intraoperative ultrasound:
- helps to guide safe and quick shunt placements, with accurate detection and targeting of the ventricle in question.
- allows shunt placements to be performed by one person using the burr-hole transducer and single-use needle guides.

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- Fully sterilizable neurosurgery transducers that can make direct contact with the brain and dura
- Immediate, auto-optimized imaging using the No-touch Autogain and Auto Focus features
- Exclusive digital integration with Brainlab neuronavigation systems for full plug & play experience

Tumors shown using the burr-hole transducer from a small insertion diameter and with an extended field of view.

Outstanding details of brain anatomy shown using the craniotomy transducer.

Ventriculoperitoneal shunt placement shown using the burr-hole transducer with needle guidance.
REAL CLINICAL IMPACT
WITH HIGH-RESOLUTION REAL-TIME IMAGING

- Falx menigioma with color Doppler
  N13C5 craniotomy transducer

- High-grade tumor
  N13C5 craniotomy transducer

- Highly detailed brain tissue
  N13C5 craniotomy transducer

- Metastatic lesion
  N13C5 craniotomy transducer

- Glioblastoma
  N13C5 craniotomy transducer

- Intradural spinal cord lesion
  X18L5s intraoperative hockey stick transducer

- Tethered spinal cord
  N13C5 craniotomy transducer

- Low-grade glioma. Transverse view.
  N11C5s burr-hole transducer

- Benign spinal cord lesion. Sagittal plane
  N13C5 craniotomy transducer
DEDICATED NEUROSURGICAL ULTRASOUND SOLUTION

FUNCTION AND SIMPLICITY IN DESIGN - bk5000
- High-resolution, real-time images with outstanding anatomical details.
- Intuitive keyboard design.
- Immediate, auto-optimized imaging using the No-touch Autogain and Auto Focus features.
- Rapid boot time and up to two hours of plug-free imaging.
- Sterilizable remote control for convenient control of the system in the sterile field.

SPECIALIZED TRANSDUCERS DESIGNED FOR NEUROSURGERY
- Specialized, sterilizable neurosurgery transducers provide detailed images of the brain and spinal cord.
- Convenient Smart button™ activates the transducer, as well as freezes, stores, and prints images.
- Disposable, easy-to-use needle guides assist with shunt placement procedures.
- Long transducer cables (2.2 m / 7.3 ft) allow flexible movement in the OR.

EXCLUSIVE DIGITAL INTEGRATION WITH BRAINLAB
- Brainlab Ultrasound Navigation Software provides updated and accurate images for instant navigation.
- Real-time overlay of ultrasound imaging on pre-operative MRI/CT provides immediate information about brain shift.
- Facilitates scanning and reconstruction of 3D ultrasound data faster than intraoperative MR and CT.
- Digital transmission ensures no loss of ultrasound image quality.

The small footprint burr-hole transducer (N11CSs) is designed to image the brain and guide procedures with precision.

The craniotomy transducer (N13CS) is ideal for guiding biopsy procedures, determining the adequacy of a resection, and differentiating vascular malformation from adjacent hematoma.

The ‘Hockey Stick’ transducer X18L5s (9009)° provides excellent resolution in the extreme near-field. Its flexible tip gives access to hard-to-reach areas and can be adjusted to 0°, 30°, 60°, and 90° positions.

Ultrasound Navigation Software showing two different intraoperative ultrasound scans reconstructed in axial, coronal, and sagittal planes and overlaid onto pre-operative MR (rows 2 and 3). The navigated 3D ultrasound scans (blue) provide up-to-date information on the actual extent of resection.

Note: Use of the ‘Hockey Stick’ transducer for intraoperative (neuro) has not been CE-marked.