• Dedicated neurosurgical ultrasound system
• Simple workflow and small footprint
• Fully-sterilizable neurosurgery transducers that can make direct contact with the brain
• Immediate, auto-optimized imaging via the No-touch Autogain feature
Ultrasound can advance neurosurgical procedures by helping you navigate and identify lesions and anatomical structures in real-time. Using advanced graphics processing technology, the bk5000 provides immediate, auto-optimized images that allow you to see the information you need, faster.

**PREMIUM, REAL-TIME ULTRASOUND IMAGING THAT ADVANCES NEUROSURGICAL PROCEDURES**

Ultrasound can advance neurosurgical procedures by helping you navigate and identify lesions and anatomical structures in real-time. Using advanced graphics processing technology, the bk5000 provides immediate, auto-optimized images that allow you to see the information you need, faster.

**VISUALIZATION AND PLANNING**
Neurosurgical ultrasound works in real-time, providing a complete and accurate overview of brain/tumor anatomy and tumor localization, and assisting in the identification of brain shift after pre-operative scans.

**TUMOR RESECTION: EVALUATION AND MAPPING**
During tumor resection surgery, intraoperative ultrasound helps achieve maximal tumor resection while sparing eloquent areas of the brain. Repeated ultrasound scans throughout surgery allow real-time guidance on resection extent, and brain tissue characterization allows discovery of residual tumor remnants.

**SHUNT PLACEMENTS**
Intraoperative ultrasound helps to guide safe and quick shunt placements, with accurate detection and targeting of the ventricle in question. With our burr-hole transducer and single-use needle guides, shunt placements may be performed with one hand.

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1. **The burr-hole transducer** shows tumors from a small insertion diameter, with an extended field of view.
2. **The craniotomy transducer** shows superb details of brain anatomy.
3. **Acquiring intraoperative ultrasound images** of the extent of resection takes only a few seconds.
4. **The craniotomy transducer** shows residual glioma in the course of resection.
5. **The burr-hole transducer** shows ventriculoperitoneal shunt placement with needle guidance.

"bk5000 and transducers have not been licensed for neurosurgery by Health Canada."
REAL CLINICAL IMPACT
WITH HIGH-RESOLUTION REAL-TIME IMAGING

Falx meningioma with color Doppler
N13C5 craniotomy transducer

High-grade tumor
N13C5 craniotomy transducer

Posterior fossa mets from melanoma
N13C5 craniotomy transducer

4th ventricle
N13C5 craniotomy transducer

Posterior fossa cyst transverse
N13C5 craniotomy transducer

Low-grade glioma. Transverse view.
Pediatric brain surgery
N11C5s burr-hole transducer

Highly-detailed brain tissue
N13C5 craniotomy transducer
DEDICATED NEUROSURGICAL ULTRASOUND SOLUTION

FUNCTION AND SIMPLICITY IN DESIGN
- High-resolution, real-time images with superb anatomical details.
- Intuitive keyboard design.
- Immediate, auto-optimized imaging via the No-touch Autogain feature.
- 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 and sterilizable neurosurgery transducers provide detailed images of the brain and spinal cord.
- Convenient Smart™ button activates the transducer, then 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.

INTEGRATION WITH NEURONAVIGATION SYSTEMS
- The bk5000 integrates seamlessly with neuronavigation systems including Brainlab Kick® and Curve™.
- Real-time overlay of ultrasound imaging on pre-operative CT/MRI provides immediate information about brainshift.
- Neuronavigation provides transducer orientation.

SPECIALIZED TRANSDUCERS DESIGNED FOR NEUROSURGERY
- The small footprint burr-hole transducer is designed to image the brain and guide procedures with precision.
- The craniotomy transducer is ideal for guiding biopsy procedures, determining the adequacy of a resection, and differentiating vascular malformation from adjacent hematoma.

1 The ‘Hockey Stick’ transducer is for future release for neurosurgery on the bk5000.
2 Kick® and Curve™ Neuronavigation Systems are available from Brainlab.
3 Kick® is a registered trademark of Brainlab AG in Germany and/or the US.
Curve™ is a trademark of Brainlab AG in Germany and/or the US.
Digital connection with Brainlab on bk5000 for future release.

The ‘Hockey Stick’ transducer 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.

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

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

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