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ALWAYS PERFORM CONSENT, THERAPY AND TISSUE CONTROL. THERAPY PROJECTS OR USING THE IMPROVED SYSTEM IS PERMITTED ONLY BY QUANTITATIVE MEDICAL PHYSICIAN."
StealthStation® TREON® plus

The award-winning StealthStation TREON plus is meticulously designed for accuracy, usability and flexibility. This innovative system was created specifically for the surgeon and staff and fits seamlessly into any operating room. The StealthStation TREON plus is expandable and upgradable to support additional features and applications now and in the future.

Multiple data transfer options

Two-piece modular design
• Allows ease of positioning
• Flexibility to use for viewing and/or navigation

The StealthStation TREON plus is modular in design and compatible with the latest in AxiEM™ technology.

Easy docking mechanism for single-unit storage, movement, and use

Laser Targetlock™ enables fast, accurate setup

Ultimate in surgeon control with TouchSite™ TouchScreen
## Optical Technology

### Satellite Navigation
- Satellites emit time signals.
- Target receives multiple signals with varying delays. Position is triangulated.
- Target receives visual indicator of position.
- Target moves freely under continual detection.

### Computer-Assisted Surgery
CAS systems perform similarly to satellite navigation.
- Camera emits infrared signal that is reflected off the spheres on the moving instruments.
- Camera analyzes the stereo views of the instrument to triangulate its position.
- Computer receives signal and position is visually illustrated on the system monitor.

## Hybrid Instrumentation
Hybrid instrumentation tracking options, unique to the StealthStation® platforms, provide enhanced accuracy in procedure-specific applications.

Wired LED instrument design ensures the best possible option for use with draped surgical equipment.
AxiEM™ Technology

StealthStation® AxiEM™ is the proprietary electromagnetic (EM) tracking technology developed by Medtronic Navigation. AxiEM uses unique single-coil navigation to provide tip-tracking for the navigation of flexible instruments.

- The modular design of the StealthStation® TREON® allows for immediate integration with AxiEM.
- AxiEM integrates seamlessly into the OR with a table-mounted localizer.
- Miniature hollow-core sensors enable:
  - Tracking of instruments such as suctions, stylets, biopsy needles and endoscopes
  - Tip-tracking of cannulae for injection/aspiration procedures
Capability without Complexity

Innovative technology, combined with the clinical expertise of our neurosurgical partners, has produced a broad array of powerful, yet intuitive, procedural solutions for cranial neurosurgery. This extensive suite of powerful tools provides neurosurgeons with capabilities never before available, from one-touch segmentation of anatomy to techniques that automatically register the patient.

Tumor Resection
• Facilitates tumor removal with minimal impact to surrounding structures
• Streamlines clinical use with registration techniques such as TRACER and Touch-n-Go
• Assists in determining the optimal placement and size of the craniotomy

Shunt Placement
• Facilitates optimal catheter placement
• Semi-rigid tip supports virtually any catheter or shunt
• Navigation with minimal tissue displacement
Biopsy Solutions

The StealthStation® offers the most comprehensive solution for frameless biopsy. Its unique guidance view facilitates precise alignment with pre-surgical planning, and the system’s exclusive guided needle provides real-time depth tracking.

- Packaged pre-sterilized for your convenience, the StealthNavigus™ provides a cost-effective, single-use solution
- The Vertek® Biopsy System provides a versatile, externally mounted option

Vascular

Powerful volume rendering engine developed exclusively in conjunction with Vital Images® allows the surgeon to:

- Utilize MRA and CTA to identify vascular structures relative to surrounding anatomy or pathology
- Visualize vascular structures with the touch of a button
- Other applications of volume rendering include:
  - Cortical surface rendering for epilepsy treatment or cortical stimulation
  - One-touch segmentation of bony anatomy for skullbase procedures
AxīEM™ Technology

Providing optimal solutions for ventricular access and tumor resection

StealthStation® TREON® plus with AxīEM™ tracking technology is the proprietary electromagnetic tracking solution developed by Medtronic Navigation. AxīEM uses unique single-coil navigation and provides tip tracking for the navigation of flexible instruments.

AxīEM Peripherals

The standard patient-tracking reference is a bone-fixation device utilized for high-accuracy cases. A small incision is made in the skin.

The Click and Point converts the standard AxīEM registration wand into a conventional bayoneted pointer probe for use in TRACER registration or tumor resection.

The Patient Tracker, a non-invasive patient-tracking reference, adheres directly to the patient’s skin. No additional incision is required.
**Registration Redefined**

**Touch-n-Go**
Powerful, sophisticated algorithms take fiducial-based registration to the next level.
- Automatic detection of standard IZI™ fiducials within the patient’s images
- Allows localization of the patient’s fiducials in any order
- Unique ball-tipped probe streamlines precise localization of the fiducial

**TRACER**
A simple and efficient registration method where the StealthStation’s probe is utilized to "trace" the patient’s anatomy to generate a registration.
- Comparable precision to other surface-based methods
- May eliminate the need for additional pre-operative scans
- Greater capabilities than laser-based methods

Patient Registration

In addition to the TRACER and Touch-n-Go, Medtronic Navigation provides these five patient registration techniques to facilitate computer-assisted surgery.

- Implantable fiducials
- Adhesive fiducials
- Anatomical landmarks
- FAZER™ – laser registration
- Automatic registration

Not only has Medtronic Navigation streamlined the manual registration process, but it’s also focused on automatic registration techniques including FluoroNav®, StealthStation® Siemens Iso-C³D interface software application, and PoleStar™ intraoperative MRI.
Cranial

Instruments and Accessories

SonoNav™
An intraoperative imaging system for brain shift compensation, tumor delineation and resection.
- Automatic reformatting of the pre-operative exam
- Blending of ultrasound to pre-operative exam
- Measuring and detection of brain shift
- Side-by-side localization on pre-operative exam and ultrasound image

Microscope Navigation

Medtronic enables microscope navigation for Zeiss®, Leica®, Möller® and Olympus® platforms.
- Seamless integration of operating microscope with StealthStation® System
- Track focal plane, focal point and trajectory
- Unique tumor silhouette feature for rapid flap planning and identification of tumor boundaries at probe tip
- Injection of StealthStation screen into ocular
- Optional verification for easier case set-up
Functional Neurosurgery

Activa® Parkinson’s Therapies are innovative and proven technologies from Medtronic that significantly improve motor function and reduce disability in patients suffering from the debilitating effects of Parkinson’s disease. Today, more than 20,000 patients worldwide are leading more active lives thanks to Activa® Therapy and the dedication of their physicians.

With an entire global business unit dedicated to Functional Neurosurgery, Medtronic is uniquely positioned in the industry to facilitate the complete solution for delivering Activa Therapy for treatment of movement disorders.

The DBS™ Solution by Medtronic

FrameLink™ and StealthMerge™

Market-leading planning and image fusion application suite. Now Enhanced.

Planning Station

Frameless
Clinically validated capability with the NEXFRAME™ by IGN. Maximize procedure efficiency.

StimPilot™ Single Procedure Kit

StimPilot™ System

ACTIVA® Therapy Consultant

Merge
Patient-associated surgical plans. Plan and merge any image, any time.

Auto Detect
Automatic frame detection and registration. Register fast and hassle-free.

ACTIVA® Kinetra Neurostimulator and DBS™ Leads

△ Available outside the United States

△ Currently available through the ACTIVA therapy consultant.