

## CRANIAL ACCESSORIES

### 53106 | POINTER CRANIAL / ENT WITH BLUNT TIP

Standard instrument for the intra-operative registration of anatomical landmarks and surface point acquisition:

- Rounded tip for sliding and continuous point acquisition
- Wireless and autoclavable design for fast sterilization
- Requires Reflective Marker Spheres for wireless navigation
- Contains a blunt tip pointer and the corresponding gauge to be stored in sterilization tray



### 18390 | SOFTOUCH POINTER

- Unsterile navigation pointer e.g. for standard registration, surface matching registration (optional), registration verification or craniotomy planning
- Active point acquisition with standard registration when using donut markers
- Multi-color LED for function display and battery level indication
- Exchangeable standard Lithium battery
- Cleaning and surface-disinfection possible
- Requires minimum software versions VV Cranial/ENT 7.9.1, or Kolibri Cranial/ENT 2.7.1
- Surface matching registration (optional feature extension)



#### SURFACE MATCHING REGISTRATION (OPTIONAL FEATURE EXTENSION):

- Pointer for fast and reliable surface matching registration, as stand-alone registration method or in combination with Z-touch laser registration
- No facemask, headset or markers needed for scan
- Eliminates need for registration rescans, potentially reducing costs and patient radiation exposure
- Surface point collection without skin shift and in areas not visible to navigation camera
- Unique skin sensing tool tip works through the hairline and even for dry skin conditions
- Feature extension requires "Surface Matching Registration Software" (art.no. 21804)

### 18370 | Z-TOUCH LASER POINTER

Battery powered wireless laser pointer for quick and accurate patient registration without fiducials.

- Cost-efficient registration using existing diagnostic CT or MR data sets without the need for delicate disposables and extra scans
- Touch-free surface point collection causing no skin shift distortions
- Pilot laser beam with control LED for selective acquisition of optimal anatomical features at the patient's surface
- Only system to acquire projected 3D laser points directly in the patient coordinate system, maximizing accuracy
- Straightforward one-button device control
- Exchangeable standard lithium battery (FR03 / AAA)
- Comes with a storage case for Z-touch pointer and Softouch pointer
- Compliant with IEC 60601-1:2005+A1:2012 (Ed. 3.1)
- Laser product Class 3R according to IEC 60825-1:2007 (Ed. 2)
- Requires "Surface Matching Registration Software" (art.no. 21804)



#### 41728 | STANDARD CRANIAL REFERENCE ARRAY WITH 4 MARKER SPHERES (2 PCS)



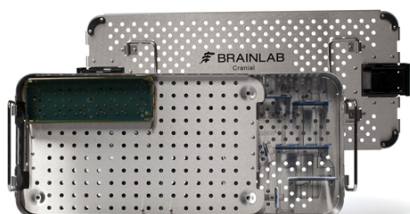
- Two Reference arrays for sterile (navigation) and non-sterile (registration) use
- Geometry with four marker spheres to track location of the patient's head
- High-precision manufactured stainless steel with 5 years lifetime
- Autoclavable design for easy sterilization
- Attaches to/requires "Vario Reference Arm for Mayfield" or "Reference Clamp Universal"
- Requires "Reflective Marker Spheres"

#### 41734 | REFERENCE CLAMP UNIVERSAL



- Attachable to various head holders via adjustable screws
- Enables flexible positioning of Standard Cranial Reference Array
- High-precision manufactured stainless steel
- Autoclavable design for easy sterilization
- Requires/compatible with Standard Cranial Reference Array 4 Spheres (#41725) or Standard Cranial Reference Array 3 Spheres (#41735)

#### 52305 | STERILIZATION TRAY CRANIAL



Material: Stainless Steel, Polyamid (PA)

Storage Capability: Pan and Inset: Customized according to cranial application instruments

Sterilization: Autoclavable

Physical Characteristics:

- Height: 134 mm
- Width: 225 mm
- Length: 513 mm
- Weight: 6.0 kg

Material Medical	Stainless Steel, PA	
Physical Characteristics	Height	172 mm
	Width	225 mm
	Length	265 mm
	Weight	3.3 kg
Storage Capability: Pan and Inset	Customized according to cranial application instruments	
Sterilization	Autoclavable	



### 52315 | STERILIZATION TRAY STANDARD CRANIAL ACCESSORIES

Tray for safe storage and efficient sterilization (autoclaving) of Brainlab Standard Cranial Accessories.

- Two quick-release fasteners for easy access
- Two ergonomic handle pairs, at the top and the side

#### PHYSICAL CHARACTERISTICS

- Height: 172 mm
- Width: 225 mm
- Length: 265 mm
- Weight: 3.3 kg

#### STORAGE CAPACITY

- 2x STANDARD CRANIAL REFERENCE ARRAY WITH 4 SPHERES (#41725)
- 1x REFERENCE CLAMP UNIVERSAL (#41734)
- 1x POINTER CRANIAL / ENT WITH BLUNT TIP (#53106)

#### COMPATIBILITY

Compatible with following sterilization containers:

- KLS Martin MicroStop, Article 55-440-30-04 or similar
- KLS Martin marSafe, Article 55-230-30-04 or similar

Material Medical	Stainless Steel, PA	
Physical Characteristics	Height	172 mm
	Width	225 mm
	Length	265 mm
	Weight	3.3 kg

### 18399 | CASE FOR CRANIAL UNSTERILE ACCESSORIES

Case for secure storage of following unsterile cranial accessories:

- 1x 41725 STANDARD CRANIAL REFERENCE ARRAY - 4 MARKER
- 1x 41735 STANDARD CRANIAL REFERENCE ARRAY - 3 MARKER
- 1x 41734 REFERENCE CLAMP UNIVERSAL
- 1x 52001 VARIO REFERENCE ARM FOR MAYFIELD HEAD HOLDER
- 1x 52003 [or 52005] V-INSET FOR MAYFIELD [IMRIS] HEAD HOLDER



### 52001 | VARIO REFERENCE ARM FOR MAYFIELD HEADHOLDER

- Multi-articulated arm with three joints and one central tension handle
- Enables flexible, fast and secure positioning of Standard Cranial Reference Array
- Attaches directly to the Mayfield™ Headrest
- Requires/compatible with Standard Cranial Reference Array 4 Spheres (#41725) or Standard Cranial Reference Array 3 Spheres (#41735)





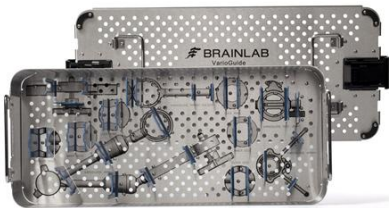
#### 55950 | VARIOGUIDE

Fine-adjustment for navigated frameless biopsies, shunt placements & endoscopic examination guided by the navigation system:

- Allows precise online tracking according to the pre-planned trajectory
- Directly attachable to Mayfield™ Headrest Screw interface
- V-connector adds 2nd Mayfield™ interface for simultaneous use of "Vario Reference Clamp" & "VarioGuide"
- Adapts to fit cylindric instruments of 1.8mm - 8.0mm and up to 300g
- Holds instruments with a length of up to 35 cm
- Includes sterilizable, wireless and pre-calibrated alignment array
- Requires VectorVision cranial 7.6 or higher or Kolibri cranial 2.1 or higher
- Requires VectorVision cranial 7.8 or higher or Kolibri cranial 2.6 or higher for wizard-guided trajectory alignment with "VARIOGUIDE ALIGNMENT SOFTWARE"
- Requires article 21900 "VARIOGUIDE ALIGNMENT SOFTWARE" for wizard-guided trajectory alignment
- Not compatible with customized "Mayfield Head Clamp" supplied by Maquet
- For IMRIS head holder article "52005 V-inset for IMRIS head holder" is required

#### 52303 | STERILIZATION TRAY FOR VARIOGUIDE

Sterilization tray for safe, efficient autoclaving and storage of all components of "VarioGuide"



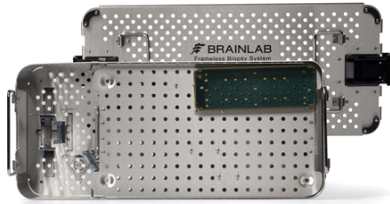
#### 55940 | FRAMELESS BIOPSY SYSTEM

Multi-joint articulated arm for navigated frameless biopsies & endoscopic examination guided by the navigation system:

- Allows precise online tracking of biopsy needles according to the pre-planned trajectory
- Directly attachable to Mayfield™ Headrest Screw interface
- V-connector adds 2nd Mayfield™ interface for simultaneous use of "Vario Reference Clamp" & "Frameless Biopsy System"
- Includes sterilizable, wireless and pre-calibrated alignment array
- Includes sleeves for instruments with 1.8mm diameter (eg. for use with optional available Brainlab Disposable Biopsy Needle Art. 41779)
- Individual biopsy instrument adaptation optional available (Art. 41946)
- Requires ICM 4
- Requires VectorVision cranial/ENT 7.6 or higher or Kolibri cranial/ENT 2.1 or higher

### 52304 | STERILIZATION TRAY FOR FRAMELESS BIOPSY SYSTEM

Sterilization tray for safe, efficient autoclaving and storage of all components of "Frameless Biopsy System"



### 52122 | SKULL REFERENCE ARRAY

Reference star for the Skull Reference Array:

- Exact repositioning of star through predefined interface
- Integrated calibration point for instant instrument calibration
- Wireless and autoclavable design
- Requires Reflective Marker Spheres



### 52129 | REFERENCE BASE SKULL

Hardware for patient referencing without head rest fixation:

- Enables flexible patient re-positioning and head movement
- Free positioning & variable fixation direct to bone structures
- Allows access to virtually any desired cranial site
- Stable fixation based on 3 cantilevers equipped with spikes
- Single screw fixation
- Precision manufactured stainless steel for high durability
- Wireless & autoclavable design for quick & easy sterilization
- Includes one base-plate
- Requires "Reflective Marker Spheres" for wireless tracking
- Requires two "Skull Reference Arrays"
- Requires 52170 Disposable KLS Martin Self-drilling Screw ( **recommended**) with 52171 Screwdriver Blade and 52127 Handle for Blades
- Alternative: Requires 52128 Disposable KLS Martin Self-tapping Screw ( **compatible**) with 52124 Screwdriver, 52127 Handle for Blades and 52126 Drill Bit



### 52171 | SCREWDRIVER BLADE (KLS MARTIN)

Insert for screwdriver handle to be used for Disposable KLS MARTIN Self-drilling Screw (52170) for fixation of the Skull Reference Array



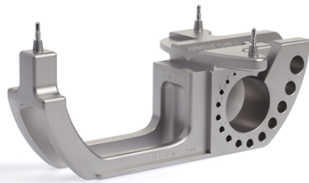
**52127 | HANDLE FOR BLADES (KLS MARTIN)**

- Handle for screwdriver blades or drill bits
- Used in combination with Skull Reference Array
- Requires article 52126 (Drill Bit 1.1mm) or article 52171 (Screwdriver Blade KLS MARTIN)


**41874 | INSTRUMENT CALIBRATION MATRIX**

Device for instant intraoperative calibration of length, diameter and vector of a rigid instrument:

- Supports a variety of rigid surgical instruments
- Precision manufactured stainless steel
- Autoclavable design for easy sterilization
- Compatible with Brainlab instrument arrays for manually or pre-calibrated tools


**REQUIREMENTS**

- Disposable Reflective Marker Spheres
- Minimum software version required: VectorVision Cranial/ENT 6.01, -Hip 2.0, -Knee 1.5, -Spine 5.1, Kolibri Cranial/ENT 1.0

**41798 | INSTRUMENT ADAPTER ARRAY SIZE M**

- Size "M" tracking geometry enables navigation of various existing surgical instruments
- Compatible with different sized adapter clamps due to standardized attachment interface
- High-precision manufactured stainless steel
- Autoclavable design for easy sterilization
- Requires "Reflective Marker Spheres"
- Requires "Instrument Adapter Clamp"
- Requires "Instrument Calibration Matrix"


**41799 | INSTRUMENT ADAPTER ARRAY SIZE ML**

- Size "ML" tracking geometry enables navigation of various existing surgical instruments
- Compatible with different sized adapter clamps due to standardized attachment interface
- High-precision manufactured stainless steel
- Autoclavable design for easy sterilization
- Requires "Reflective Marker Spheres"
- Requires "Instrument Adapter Clamp"
- Requires "Instrument Calibration Matrix"



#### 41801 | INSTRUMENT ADAPTER ARRAY SIZE L

- Size "L" tracking geometry enables navigation of various existing surgical instruments
- Compatible with different sized adapter clamps due to standardized attachment interface
- High-precision manufactured stainless steel
- Autoclavable design for easy sterilization
- Requires "Reflective Marker Spheres"
- Requires "Instrument Adapter Clamp"
- Requires "Instrument Calibration Matrix"



#### 41802 | INSTRUMENT ADAPTER ARRAY SIZE XL

- Size "XL" tracking geometry enables navigation of various existing surgical instruments
- Compatible with different sized adapter clamps due to standardized attachment interface
- High-precision manufactured stainless steel
- Autoclavable design for easy sterilization
- Requires "Reflective Marker Spheres"
- Requires "Instrument Adapter Clamp"
- Requires "Instrument Calibration Matrix"



#### 55101 | INSTRUMENT ADAPTER CLAMP SIZE S

Used in conjunction with an optical tracking geometry or an electromagnetic sensor, the instrument adapter clamp easily integrates a wide range of small-sized surgical instruments into surgical navigation.

- Supported instrument diameters: 1.5mm - 5.1mm
- Flexible width jaws for attaching clamp to the instrument
- Standardized interface for attaching the tracking component to the clamp
- Compatible with "Instrument Adapter EM" for electromagnetic navigation
- Compatible with different sized "Instrument Adapter Arrays" for optical navigation
- Autoclavable design for fast sterilization



#### 55102 | INSTRUMENT ADAPTER CLAMP SIZE M

Used in conjunction with an optical tracking geometry or an electromagnetic sensor, the instrument adapter clamp easily integrates a wide range of medium-sized surgical instruments into surgical navigation.

- Supported instrument diameters: 5.1mm - 10.5mm
- Flexible width jaws for attaching clamp to the instrument
- Standardized interface for attaching the tracking component to the clamp
- Compatible with "Instrument Adapter EM" for electromagnetic navigation
- Compatible with different sized "Instrument Adapter Arrays" for optical navigation
- Autoclavable design for fast sterilization



#### 55103 | INSTRUMENT ADAPTER CLAMP SIZE L

Used in conjunction with an optical tracking geometry or an electromagnetic sensor, the instrument adapter clamp easily integrates a wide range of large-sized surgical instruments into surgical navigation.

- Supported instrument diameters: 7.0mm - 16.0mm
- Flexible width jaws for attaching clamp to the instrument
- Standardized interface for attaching the tracking component to the clamp
- Compatible with "Instrument Adapter EM" for electromagnetic navigation
- Compatible with different sized "Instrument Adapter Arrays" for optical navigation
- Autoclavable design for fast sterilization



#### 55104 | INSTRUMENT ADAPTER CLAMP SIZE XL

Used in conjunction with an optical tracking geometry or an electromagnetic sensor, the instrument adapter clamp easily integrates a wide range of extra large-sized surgical instruments into surgical navigation.

- Supported instrument diameters: 13.0mm - 24.0mm
- Flexible width jaws for attaching clamp to the instrument
- Standardized interface for attaching the tracking component to the clamp
- Compatible with "Instrument Adapter EM" for electromagnetic navigation
- Compatible with different sized "Instrument Adapter Arrays" for optical navigation
- Autoclavable design for fast sterilization



#### 55110 | INSTRUMENT ADAPTER CLAMP FOR CYLINDRICAL INSTRUMENTS

Used in conjunction with an optical tracking geometry or an electromagnetic sensor, the instrument adapter clamp easily integrates surgical instruments into surgical navigation through attaching the clamp at a cylindrically shaped part of the instrument.

- Supported instrument diameters: 2.5mm - 7.0mm
- Single-screw jaw fixation for attaching clamp to the instrument
- Standardized interface for attaching the tracking component to the clamp
- 30° angulation of tracking component to instrument axis
- Compatible with "Instrument Adapter EM" for electromagnetic navigation
- Compatible with different sized "Instrument Adapter Arrays" for optical navigation
- Autoclavable design for fast sterilization



#### 55061 | TOOL FOR INSTRUMENT ADAPTER

Allen key for fixation of Instrument Adapter Array





## IGS DISPOSABLES

### 52160 | MULTI-MODALITY DONUT REGISTRATION MARKER (100 PCS)

Multi-Modality Fiducial Markers (donut shape) for Image Guided Surgery to correlate images to patients

- Self-adhesive, lightweight markers avoid tissue indent and provide high wearing comfort
- Marker localization on CT and MR images
- Manual marker detection with iPlan planning software
- Semi-automatic marker detection with iPlan and navigation software (requires minimum version iPlan 3.0 and/or Cranial/ENT 2.1)
- Enables marker-based registration of image data in the OR
- For combined use with Brainlab pointer (blunt tip) or Softouch pointer



### 41779 | DISPOSABLE BIOPSY NEEDLE 1.8MM / 235MM (5 PCS)

Includes 5 disposable, sterile, pre-calibrated needles for cranial biopsies:

- Outer needle diameter: 1.8mm
- Usable biopsy length: up to 150mm
- Cutting window length: 10mm
- Packaging contains a metal ruler, syringe and syringe adapter in hard blister packaging and 'instructions for use' leaflet
- For use with the Brainlab "Frameless Biopsy System" or Brainlab "VarioGuide"
- Requires minimum VV cranial 7.6 for use with the "Frameless Biopsy System" or Brainlab "VarioGuide" hardware
- Requires minimum VV cranial 7.8 for use with the Brainlab "VarioGuide Alignment Software"



### 55797 | DISPOSABLE STYLET (10 PCS, PRE-CALIBRATED)

Guiding stylet for navigated placements of shunts or ventricular catheters in neurosurgery. Does not include a shunt or ventricular catheter.

- Enables quick freehand navigated placements of shunts or ventricular catheters
- Compatible with 3rd party (non Brainlab) neurosurgery shunts or ventricular catheters with inner diameter between 1.3mm and 1.5mm and a length up to 150mm
- Incorporated passive marker plates
- Marker geometry automatically recognized by navigation camera for instant calibration
- Minimum requirements: VectorVision Cranial / ENT 7.9 or Kolibri Cranial / ENT 2.7



**16123 | CAMERA HANDLE DRAPE (200 PCS.)**

Sterile drape for the camera handle enables sterile re-positioning of the camera

- sterile
- single use only
- double packed to allow easy sterile handling
- Compatible with VV<sup>2</sup> and VVc and Curve

**18071-50 | DISPOSABLE STERILE MONITOR DRAPES FOR KICK (40 PCS)**

Disposable sterile drapes to cover touchscreen display of Kick.

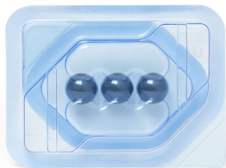
- Quantity: 40 pcs
- Disposable item

**41774 | DISPOSABLE REFLECTIVE MARKER SPHERE (270 PCS)**

From NDI, the authorized Brainlab partner for disposable reflective marker spheres. Approved by Brainlab, for use with all Brainlab IGS systems.

Localization sphere coated with IR-light, retro-reflective foil:

- Single use, ethylene oxide (ETO) pre-sterilized
- 90 units with 3 spheres per unit
- Increased OR efficiency due to omission of sterilization



## **MICROSCOPE NAVIGATION**

### **15239 | MICROSCOPE INTERFACE CABLE**

Interface cable for the integration of HAAG-STREIT, LEICA and ZEISS surgical microscopes.

#### PLATFORM COMPATIBILITY

- Curve™
- Kick®

#### MICROSCOPE COMPATIBILITY

- HAAG-STREIT/MOELLER Hi-R 1000, Hi-R 700
- LEICA M525, M720, M530 OH6, M530 OHX
- ZEISS OPMI® Pentero®, OPMI® PENTERO® 800, OPMI® PENTERO® 900

### **41769-01 | MICROSCOPE ADAPTER WITH ARRAY FOR ZEISS KINEVO 900**

Microscope Adapter with Tracking Array for navigation of ZEISS KINEVO 900.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'

### **41769-02 | MICROSCOPE ADAPTER WITH ARRAY FOR ZEISS OPMI PENTERO 900**

Microscope Adapter with Tracking Array for navigation of ZEISS OPMI PENTERO 900 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'

### **41769-03 | MICROSCOPE ADAPTER WITH ARRAY FOR ZEISS OPMI PENTERO 800**

Microscope Adapter with Tracking Array for navigation of ZEISS OPMI PENTERO 800 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'

### **41769-04 | MICROSCOPE ADAPTER WITH ARRAY FOR ZEISS OPMI VARIO 700**

Microscope Adapter with Tracking Array for navigation of ZEISS OPMI VARIO 700 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'

**41769-05 | MICROSCOPE ADAPTER WITH ARRAY FOR ZEISS OPMI PENTERO**

Microscope Adapter with Tracking Array for navigation of ZEISS OPMI PENTERO surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'

**41769-06 | MICROSCOPE ADAPTER WITH ARRAY FOR LEICA M530 OHX**

Microscope Adapter with Tracking Array for navigation of LEICA M530 OHX surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'
- Cross hair ocular included

**41769-07 | MICROSCOPE ADAPTER WITH ARRAY FOR LEICA M530 OH6**

Microscope Adapter with Tracking Array for navigation of LEICA M530 OH6 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'
- Cross hair ocular included

**41769-08 | MICROSCOPE ADAPTER WITH ARRAY FOR LEICA M720**

Microscope Adapter with Tracking Array for navigation of LEICA M720 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'
- Cross hair ocular included

**41769-09 | MICROSCOPE ADAPTER WITH ARRAY FOR LEICA M525**

Microscope Adapter with Tracking Array for navigation of LEICA M525 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'
- Cross hair ocular included

**41769-10 | MICROSCOPE ADAPTER WITH ARRAY FOR HAAG-STREIT/MOELLER HI-R 1000**

Microscope Adapter with Tracking Array for navigation of HAAG-STREIT/MOELLER Hi-R 1000 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'
- Cross hair ocular included

**41769-11 | MICROSCOPE ADAPTER WITH ARRAY FOR  
HAAG-STREIT/MOELLER HI-R 700**

Microscope Adapter with Tracking Array for navigation of  
HAAG-STREIT/MOELLER HI-R 700 surgical microscope.

- High-precision manufactured stainless steel
- Autoclavable
- Requires 'Reflective Marker Spheres'
- Cross hair ocular included