

# Camino®

INTRACRANIAL PRESSURE / TEMPERATURE MONITORING



- Complete NeuroCritical Care Solutions
- Clinically Proven
- Unrivalled Support

**NEUROCRITICAL  
CARE**

 **INTEGRA™**  
Neuro Sciences



# Key Features

- Easy, and reliable way to measure Intracranial Pressure, Cerebral Perfusion Pressure and Brain Temperature
- Camino bolt is quick and easy to place
  - Parenchymal and ventricular options available
- Accurate - monitors at the source
- Continuous parenchymal or ventricular monitoring
- Low complication rate
- Ease of use – catheters can be easily connected and disconnected to the same or different monitor
- Proven technology

## Brain Trauma Foundation □

### Guidelines for Management of ICP Monitoring

#### Level II

Intracranial Pressure (ICP) should be monitored in all salvageable patients with a severe traumatic brain injury (TBI; Glasgow Coma Scale [GCS] score of 3-8 after resuscitation) and an abnormal computed tomography (CT) scan. An abnormal CT scan of the head is one that reveals hematomas, contusions, swelling, herniation, or compressed basal cisterns.<sup>1</sup>

#### Level III

ICP monitoring is indicated in patients with severe TBI with a normal CT scan if two or more of the following features are noted at admission: age over 40 years, unilateral or bilateral motor posturing, or systolic blood pressure (BP) < 90 mmHg.<sup>1</sup>

1. JOURNAL OF NEUROTRAUMA: Volume 24. Supplement 1, 2007.  
© Brain Trauma Foundation Pp. S -37-S-44 DOI: 10.1089/neu.2007.9990



# Camino® Advanced Monitor

The next generation of Camino

- Intracranial Pressure
- Intracranial Temperature
- Cerebral Perfusion Pressure

The Camino® Advanced Monitor offers a broad range of functions to support parenchymal and ventricular monitoring.



## Features:

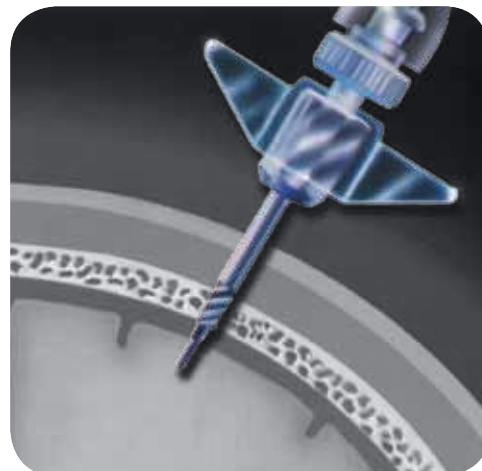
- Trend Analysis: Camino Advanced Monitor provides continuous recording and display of ICP and CPP\* values over the most recent 12 or 24 hour period.
- High ICP Alarm: Detect a rise in ICP according to user selected values to facilitate early recognition and intervention.
- Versatile Outputs: Easily connect your Camino Advanced Monitor to the Mobius Multimodality Monitoring system for research, education, and clinical analysis purposes. Analog ICP and ABP outputs are available. Please contact your NeuroSpecialist for more information.

\*CPP is computed based on the input of Mean Arterial Pressure (MAP) via a connection from the patient bedside monitor.

**INTEGRA™**  
NeuroSciences

# Parenchymal Bolt ICP Monitoring Catheter – 1104B

- Camino Parenchymal ICP Monitoring Catheter is designed for rapid placement to monitor at the source, providing an immediate ICP value and waveform
- Ergonomic bolt design permits simple and rapid placement of the catheter, saving valuable clinical time
- Continuous ICP readings eliminate the need for re-zeroing and de-bubbling of fluid filled external transducer systems
- Red depth indicator for visual verification of catheter tip position



## 1104B

Model 1104B is used to directly monitor ICP by inserting the transducer-tipped catheter through the Camino bolt. Depth markings guide placement in the parenchymal or the subarachnoid space.

### Kit Includes:

- 4 Fr transducer-tipped catheter
- Camino bolt with compression cap and turning wings
- 2.7 mm twist drill bit with adjustable safety stop
- Stylet
- Protective strain relief sheath

## 1104BC Kit:

Complete Intracranial Pressure Monitoring Kit Model 1104BC contains virtually everything the surgeon needs to monitor ICP at the bedside, all in one convenient package. The kit includes Model 1104B Monitoring Kit and Cranial Access Kit.

### Kit Includes:

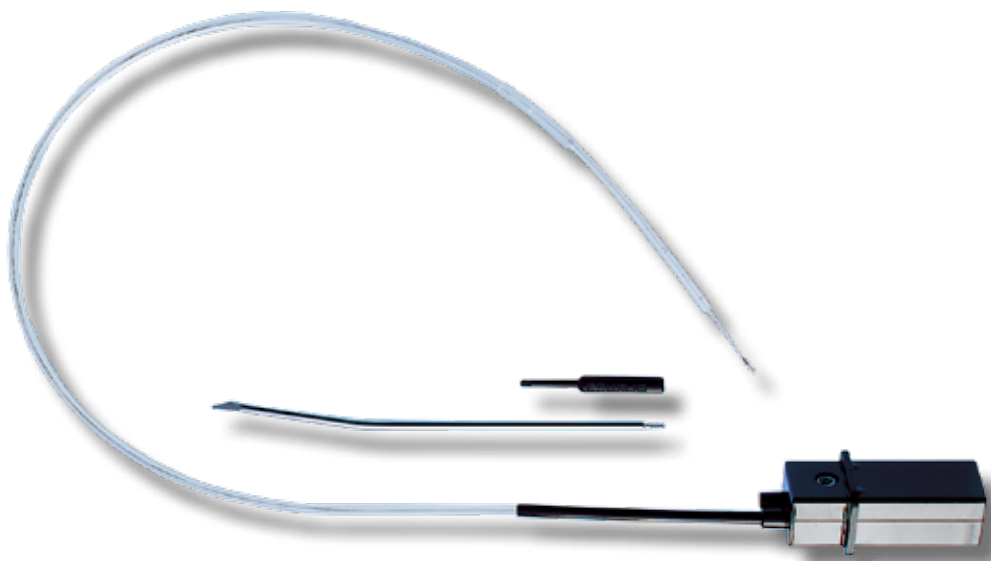
- Cranial Access Kit
- 4 Fr transducer-tipped catheter
- Camino bolt with compression cap and turning wings
- 2.7 mm twist drill bit with adjustable safety stop
- Stylet
- Protective strain relief sheath



**Rapid Placement  
with Instant Monitoring at the Source**

# Post Craniotomy Subdural ICP Monitoring Kit – 1104G

- Eliminates need for additional burr hole

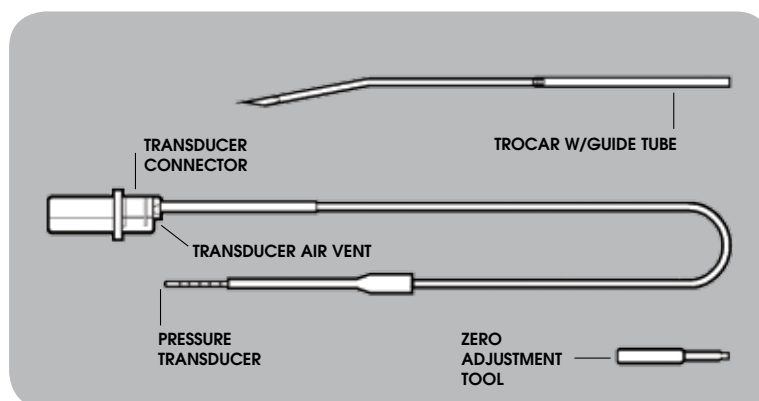


## 1104G

Model 1104G is used to measure intracranial pressure within the subdural space. The catheter is tunneled toward the insertion site using the trocar with guide tube provided with the kit.

### Kit Includes:

- 4 Fr transducer-tipped catheter
- 3.17 mm trocar with guide tube



# Ventricular Bolt ICP Monitoring Catheter – 1104HM

- Camino Micro Ventricular Bolt ICP Monitoring Catheter and drainage kit combines therapeutic CSF drainage and continuous ICP monitoring capabilities in one catheter, enabling you to drain and monitor from the same source
- Continuous ICP Monitoring means no intermittent readings due to re-zeroing or de-bubbling of the system
- Direct ICP Monitoring: Safe, simple, and accurate



## 1104HM

Model 1104HM is used to monitor ICP and provides access to the cerebral ventricles for CSF sampling and drainage. A ventricular catheter with a transducer at its tip is secured to the skull by a bolt, which permits simultaneous monitoring and drainage.

### Kit Includes:

- 4 Fr transducer-tipped catheter
- 12 Fr Camino ventricular access device with bolt
- 5 mm twist drill bit with adjustable safety stop

## 1104HMC

Complete Micro Ventricular Bolt Pressure Monitoring and Drainage Kit Model 1104HMC combines all the elements required for ventriculostomy, direct pressure monitoring and CSF drainage. The kit includes 1104HM Micro Ventricular Bolt Pressure Monitoring Kit, Cranial Access Kit, and Ventricular Drainage System.

### Kit Includes:

- Cranial Access Kit
- 4 Fr transducer-tipped catheter
- 12 Fr Camino ventricular access device with bolt
- Stylet
- 5.3 mm twist drill bit with adjustable safety stop

**Therapeutic CSF Drainage  
and Continuous ICP Monitoring**

# Ventricular Bolt ICP/Temperature Monitoring Catheter – 1104HMT

- Targeted intracranial temperature measurement
- Easy bolted access

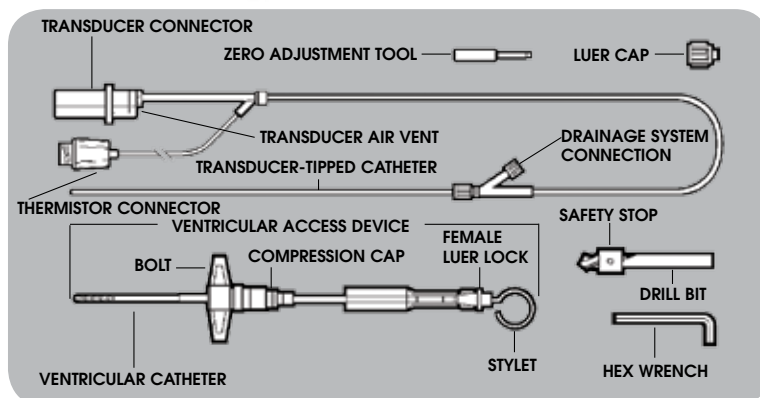


## 1104HMT

Model 1104HMT is used to monitor intracranial pressure/temperature and provides access to the cerebral ventricles for CSF sampling, drainage and fluid injection. A special ventricular access device is secured to the skull by a bolt and permits continuous monitoring and drainage.

### Kit Includes:

- 4 Fr transducer-tipped catheter with thermistor
- 12 Fr Camino ventricular access device with bolt
- 5 mm twist drill bit with adjustable safety stop
- Thermistor connector cover





# Parenchymal ICP For Licox® Catheter Kit with Licox Bolt Fitting – 1104L

- Fits down the ICP lumen of the Licox® double lumen bolt
- Allows monitoring of intracranial pressure and brain tissue oxygen partial pressure ( $P_{bt}O_2$ ) through one burr hole
- Integral luer-type fitting for secure attachment
- Adjustable insertion depth
  - Ensures  $P_{bt}O_2$  measurements are not influenced by ICP catheter insertion
  - Allows consistent, reproducible catheter tip positioning with every placement
- Compatible with all Camino ICP monitors, including the Camino Advanced Monitor (CAM01)
- Incorporates all the features of the proven Camino design

## 1104L

Camino intracranial pressure monitoring catheter with integrated Licox Bolt fitting

### Kit Includes:

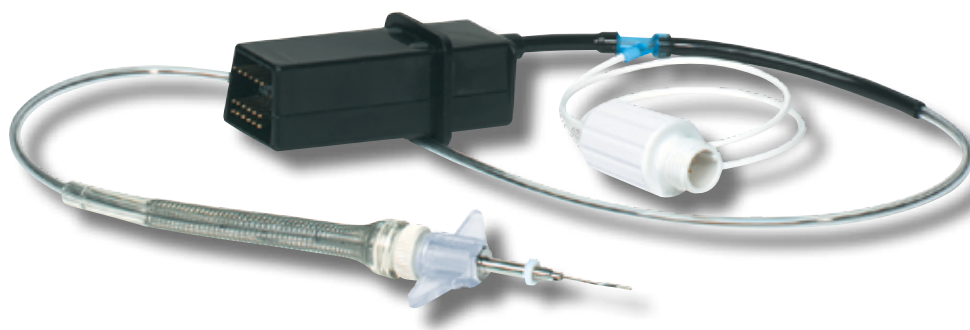
- 4 Fr transducer-tipped catheter with Licox Bolt fitting





# Parenchymal Bolt ICP/Temperature Monitoring Catheter – 1104BT

- Targeted intracranial temperature measurement
- Easy bolted access
- Red depth indicator for visible verification

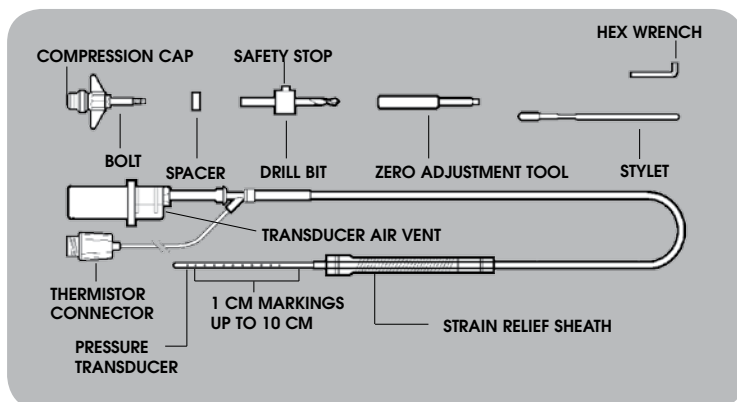


## 1104BT

The fiberoptic transducer-tipped pressure-temperature catheters provide simultaneous intracranial pressure (ICP) and intracranial temperature (ICT) measurement.

### Kit Includes:

- Transducer-Tipped Catheter
- Bolt with Compression Cap and Turning Wings
- 2.7 mm Twist Drill Bit with Safety Stop
- Stylet
- Protective Strain Relief Sheath



# Camino®

## INTRACRANIAL PRESSURE / TEMPERATURE MONITORING



Catalog Number	Description
CAM01	Camino Advanced Monitor
PAC-1	ICP/Temperature Pre-Amp Cable
ICP-XX (Specify Type)	Patient Monitor ICP Connector Cable
ICT-XX (Specify Type)	Patient Monitor ICT Connector Cable
AP-XX (Specify Type)	Patient Monitor AP Connector Cable

### Description:

The Camino Advanced Monitor is a compact, portable device for monitoring intracranial pressure (ICP), intracranial temperature (ICT), and cerebral perfusion pressure (CPP). ICP and/or temperature (ICT) are measured at the catheter tip. CPP is calculated based on an external input of mean arterial pressure and measured ICP.

### Indications:

The Camino Advanced Monitor is indicated for use when direct measurement of intracranial pressure (ICP) and/or intracranial temperature (ICT) is clinically important.



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