To help prevent possible patient injury resulting from incorrect ICP measurements, follow the steps below before catheter implantation. Always make sure to adjust the catheter’s ICP value to zero before implantation while the catheter is in the air. Never attempt to change the zero adjustment while the catheter is inside the patient.

**Monitor Setup**

1. Connect the black fiber optic catheter cable (CAMCABL) to the ports on the Camino monitor
   - Attach the cable’s ICP connector (P) into the port labeled ICP by aligning the red dot on the cable connector with the red triangle on the monitor’s port and push firmly
   - Since temperature is not measured with the 1104B catheter, connection to the port labeled ICT is not required; the temperature value on the monitor will appear as two dashed lines
2. Identify the appropriate catheter by the label on the outside of the box (see picture of label on right)
3. Using sterile technique, remove the catheter from its sterile package and place in sterile field
4. Using proper technique to maintain sterility, connect the preamp connector at the end of the CAMCABL to the black transducer connector at the end of the catheter
5. Check the monitor display to determine the ICP reading
   - If it does not read zero, use the zero adjustment tool from the catheter kit to turn the screw on the bottom side of the transducer connector (Figure 1) until the monitor display reads zero
6. Prior to implanting the catheter into the patient, disconnect the preamp connector at the end of the CAMCABL from the black transducer connector at the end of the catheter
   - Ensure the black transducer connector does not breach sterility
Area of insertion

- The standard right and left prefrontal areas are the primary areas of insertion

Catheter Placement

1. Prepare sterile field: clip hair, prep skin, drape area, open skin
2. Using drill bit from Camino kit, create burr hole and rinse with saline
3. Open dura using an 18G spinal needle to make a cruciate incision
4. Screw the bolt into the skull clockwise
5. Ensure that there is a clear path through the skull using the stylet
6. Prior to catheter insertion, ensure it has been properly zeroed
7. Place fingers at double dot marking (5cm) and insert catheter through bolt passage until the fingers touch the top of the bolt
8. Pull back approximately 0.5 cm on catheter and tighten compression cap to secure catheter in place
9. Reconnect the catheter to the CAMCABL and verify waveform on Camino monitor and/or bedside monitor
10. While holding catheter, slide the strain relief sheath down towards the bolt and secure it to the compression cap

If red depth indicator is visible above strain relief, catheter tip position should be checked to ensure desired depth is achieved

The safety stop on the drill bit can be positioned as desired by loosening the set screw with the hex wrench, sliding the safety stop to the desired position, and tightening the set screw

Seating depth of the bolt will be at the discretion of the surgeon depending on the thickness of the skull

The Integra® Camino® ICP Monitor is indicated for use by qualified neurosurgeons or neurointensivists for measurement of intracranial pressure and temperature.

The use of the Camino Intracranial Pressure Monitoring Kit is indicated for use by a qualified neurosurgeon when direct measurement of intracranial pressure in the parenchyma or the subarachnoid space, is clinically important.