**LIMITORR SET-UP WITH A FLUSHLESS EXTERNAL TRANSUDER**

This chart is not intended to replace the Limitorr™ Instructions for Use; please refer to the product’s package insert for complete instructions. The following steps provide a visual aid in familiarizing responsible personnel with the use and function of the various components of the system, as described in the Instructions for Use. Always use sterile technique in setting up the Limitorr™ system.

### Attaching the System to the Pole

1. **Attach sliding bracket (included with system) to Limitorr™ system by inserting sliding bracket up into hole behind graduated burette top cap.**
2. **Mount the Limitorr system to the Evolution Pole Mount assembly (INS400 series).**
3. **Insert manifold into slot of Pole Mount.**

### Priming the System With aFlushless External Transducer

(this is completed prior to attaching tubing to ventricular or lumbar catheter)

1. **First check that all fittings on the Limitorr Volume Limiting Drain are tightened. Turn the pressure transducer stopcock to “open” to the patient line and “open” to the pressure transducer.**
2. **Remove sterile red caps from the pressure transducer and catheter connections. Attach 10mL syringe, filled with preservative free normal saline, to transducer stopcock port and prime tubing of patient line to catheter connection. Replace sterile end cap once patient line is primed. Re-orient stopcock “off” to patient line.**
3. **Drain 2-3mL saline into the drainage bag after priming. This facilitates flow through the anti-reflux valve in the drainage bag.**

### Setting the Pressure Level and Securing the System

1. **The system must be properly aligned relative to patient for accurate drainage. Limitorr system is designed for use with an Integra Pole Mount Assembly (INS400 series).**
2. **Establish zero pressure: Use Integra Laser Level or Line Level to align the yellow indicator of the Pole Mount with the drip level of the Limitorr.**
3. **Keeping the 10mL syringe attached, turn pressure transducer stopcock to “open” to graduated burette and “closed” to patient line. Prime tubing allowing 2-3mL of saline to collect in the graduated burette.**
4. **Drain 2-3mL saline into the drainage bag. Do not fully drain out tube between burette and drainage bag after priming. This can result in an air lock that delays draining. Remove 10mL syringe and replace with sterile end cap.**

### Draining CSF

1. **To drain fluid from burette into drainage bag turn the yellow “OFF” lever to the horizontal position. If fluid does not quickly empty into the drain bag, gently pull the bottom of the drainage bag downward. This facilitates flow through the anti-reflux valve in the drainage bag.**
2. **To drain CSF, position both pole mount and patient line stopcocks as shown.**

### Monitoring ICP

1. **Follow transducer manufacturer’s instructions for transducer set-up and calibration. If accurate pressure monitoring is desired with pressure wave forms, the system should be temporarily closed to drainage to the graduated burette.**
Attaching the System to the Pole

Attach sliding bracket (included with system) to LimiTorr™ system by inserting sliding bracket up into hole behind graduated burette top cap.

Mount the LimiTorr system to the Evolution Pole Mount Assembly (INS400 series).

Insert manifold into slot of Pole Mount.

Priming the System

(this is completed prior to attaching tubing to ventricular or lumbar catheter)

First check that all fittings on the LimiTorr Volume Limiting Drain are tightened. Turn the pressure transducer stopcock to “open” to the patient line.

Attach 10mL syringe, filled with preservative free normal saline, to transducer stopcock port and prime tubing of patient line to catheter connection. Replace sterile end cap once patient line is primed. Re-orient stopcock “off” to patient line.

Keeping the 10mL syringe attached, turn pressure transducer stopcock to “open” to graduated burette and “closed” to patient line. Prime tubing allowing 2-3mL of saline to collect in the graduated burette.

Drain 2-3mL saline into the drainage bag. Do not fully drain out tube between burette and drainage bag after priming. This can result in an air lock that delays draining. Remove 10mL syringe and replace with sterile end cap.

Setting the Pressure Level and Securing the System

The system must be properly aligned relative to patient for accurate drainage. LimiTorr system is designed for use with an Integra Pole Mount Assembly (INS400 series).

Establish zero pressure: Use Integra Laser Level or Line Level to align the zero reference on the Integra INS400 series Pole Mount at the external landmark of the patient as ordered by the physician (i.e. foramen of monroi for ventricular catheters).

Setting Pressure Height: Align the yellow indicator with drainage level prescribed (cm H2O or mm Hg) by moving the sliding bracket. Secure with the thumb screw.

Draining CSF

To drain fluid from burette into drainage bag turn the yellow “OFF” lever to the horizontal position. If fluid does not quickly empty into the drain bag, gently pull the bottom of the drainage bag downward. This facilitates flow through the anti-reflux valve in the drainage bag.

To drain CSF, position both pole mount and patient line stopcocks as shown.