



**IMPORTANT INFORMATION:**

A PowerLoc\* Safety Infusion Set **MUST** always be used to access the PowerPort\* implanted port for power injecting contrast media.



Implanted PowerPort™ device verified Initial and date	Replace needless cap with dead-ender	Maximum flow rate: <b>5 ml/second</b> 300 psi max.	Check for blood return and flush
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- Contrast media should be warmed to body temperature prior to power injection. **Warning:** Failure to warm contrast media to body temperature prior to power injection may result in port system failure.
- Check for blood return, then flush the PowerPort\* device using at least 10 ml of sterile normal saline prior to and immediately following the completion of power injection studies. Always ensure the patency of the PowerPort\* device to prevent damage to the port system. Resistance to flushing may indicate catheter occlusion. Do not proceed with power injection study until occlusion has been cleared. **Warning:** Failure to ensure patency of the catheter prior to power injection studies may result in port system failure.

**Maximum Flow Rates and Pressure**

PowerLoc* Safety Infusion Set Gauge Size	19 Ga.	20 Ga.	22 Ga.
PowerLoc* Safety Infusion Set Wing Color	Cream	Yellow	Black
Maximum Flow Rate Setting	5 ml/s	5 ml/s	2 ml/s
Maximum Pressure Setting	300 psi		

- Do not exceed a 300 psi pressure limit setting, or the maximum flow rate setting shown above, on the power injection machine if power injecting through the PowerPort\* device. **Warning:** Exceeding the maximum flow rate may result in port system failure and/or catheter tip displacement. **Warning:** If local pain, swelling or signs of extravasation are noted, the injection should be stopped immediately.

**Power Injection Procedure:**

- Access the port with a PowerLoc\* Safety Infusion Set. Make certain that needle tip is inserted fully within the port. **Warning:** The PowerPort\* system is only power injectable when accessed with a PowerLoc\* Safety Infusion Set. **Note:** Follow institutional protocol to verify correct catheter tip position prior to power injection.
- Attach a syringe filled with sterile normal saline.
- Instruct the patient to assume the position they will be in during the power injection procedure, before checking for patency. If possible, the patient should receive power injection with his or her arm vertically above the shoulder with the palm of the hand on the face of the gantry during

- injection. This allows for uninterrupted passage of injected contrast through the axillary and subclavian veins at the thoracic outlet.
- Aspirate for adequate blood return and vigorously flush the port with at least 10 ml of sterile normal saline. **Warning:** Failure to ensure patency of the catheter prior to power injection studies may result in port system failure.

- Detach syringe.
- Warm contrast media to body temperature.
- Attach the power injection device to the PowerLoc\* Infusion Set ensuring

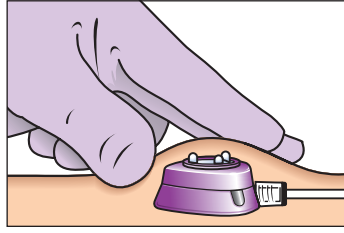
PowerLoc* Safety Infusion Set Gauge Size	19
PowerLoc* Safety Infusion Set Wing Color	Cr
Max. Flow Rate Setting	5

**USE AND MAINTENANCE**

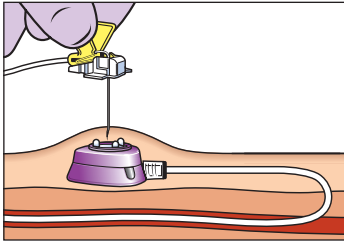
**ACCESSING IMPLANTED PORTS**

**Procedure:**

- Perform aseptic site preparation.
- Locate port septum by palpation.
  - Locate base of port with non-dominant hand.
  - Triangulate port between thumb and first two fingers of non-dominant hand. Aim for center point of these three fingers.



- Insert PowerLoc\* Safety Infusion Set perpendicular to port septum. Advance needle through the skin and septum until reaching bottom of reservoir.



- Confirm correct positioning of the needle within the port reservoir by aspiration of blood ("flashback"). If there is doubt regarding proper needle placement, have a radiographic dye procedure done to confirm placement.
- Always flush the port following injection.
- Perform heparin lock procedure. Remember that some patients may be hypersensitive to heparin or suffer from heparin induced thrombocytopenia (HIT) and these patients must not have their port locked with heparinized saline.
- When deaccessing the port, flush per institutional protocol. Close clamp while injecting the last 0.5ml of flush solution.

**HEPARIN LOCK**

To help prevent clot formation and catheter blockage, implanted ports with open-ended catheters should be flushed with 10 ml sterile normal saline using a turbulent push-pause flushing method after each use followed by 5 ml of heparinized saline. Clamp the tubing while infusing the last 0.5 ml of fluid to reduce potential for blood back-flow into the catheter tip, which could encourage catheter clotting. If the port remains unused for long periods of time, the 5 ml heparin solution should be changed at least every four weeks. Remember that some patients may be

Please consult product labels and inserts for any indications, contraindications, hazards, warn



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An issued or revision date for these instructions is included for the user's information. Systems, Inc. to see if additional product information is available.  
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