**HAND CRANK PROCEDURE FOR CARDIOHELP**

**PURPOSE:**

Hand cranking is intended for emergency situations only (mechanical pump failure, electrical failure, or wall/internal battery failure). ***Hand cranking should never be performed when the pump has stopped due to air in the circuit.***

**EQUIPMENT:**

CardioHelp emergency drive

**PROCEDURE:** In the event of equipment power failure:

* Clamp arterial outlet tubing and turn RPMs down to zero
* Place hand crank on top of CardioHelp console in slot on handle
  + Crank should be on opposite side of HLS module
* Open safety guard on CardioHelp console
* Remove integrated sensor from HLS module
* Remove venous probe from inlet tubing and place in venous probe holder on CardioHelp safety guard
* Pop off water heater hoses from HLS module using dripless valve connection
* Tighten yellow cap on de-airing port
* Remove HLS module from CardioHelp console and place in hand crank
* Remove arterial clamp as you begin to hand crank
* Loosen yellow cap on de-airing port

**Going back on to CardioHelp:**

* Tighten yellow cap on de-airing port
* Clamp arterial outlet tubing
* Remove HLS module from hand crank and replace in CardioHelp console
* Replace integrated sensor onto HLS module
* Turn up RPMs as you remove arterial clamp
* Loosen yellow cap on de-airing port
* Replace venous probe onto inlet tubing
* Close safety guard
* Remove hand crank from CardioHelp console
* Re-attach water heater hoses at dripless valve connection