Quick Start Guide

Refer to the Operator's Manual for warnings, instructions and other information related to this product.

Instructions For Use

1. Locate the main power switch on the underside of the base of unit (as shown). Turn the unit ON.

2. Verify pressure range visual alerts (“Low”, “High”, “In Range”) on control panel turn ON. After two seconds, turn off.

3. Verify Start/Stop button indicators on control panel change to Standby mode (amber).

4. Prepare warming unit, warming set and spike fluid bags.

5. Open pressure infusor door and slide fluid bag into infusor chamber ensuring bag port and spike hang below the metal retaining fingers.

6. Securely close and latch the pressure infusor door.
Refer to the Operator’s Manual for warnings, instructions and other information related to this product.

7. Press the Start/Stop button to turn the corresponding infusor chamber ON. The “In Range” LED will flash green while the system is pressurizing.

8. When the “In Range” LED turns solid green, open clamps to begin flow.

9. When fluid bag is depleted, press the Start/Stop button to turn the pressure infusor chamber OFF.

Troubleshooting

Standby/ON mode

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing illuminates on the pressure infusor control panel when the main power switch is turned ON.</td>
<td>Power cord is not plugged into the power entry module of the unit, or power cord is not plugged into a properly grounded outlet.</td>
<td>Make sure the power cord is plugged into the power entry module of the pressure infusor. Make sure the pressure infusor is plugged into a properly grounded outlet.</td>
</tr>
<tr>
<td>Power LED status lights do not illuminate.</td>
<td>Power cord is not plugged into the power entry module of the unit, or power cord is not plugged into a properly grounded outlet.</td>
<td>Make sure the power cord is plugged into the power entry module of the pressure infusor. Make sure the warming unit is plugged into a properly grounded outlet.</td>
</tr>
<tr>
<td>Unit is not turned ON.</td>
<td>Unit failure.</td>
<td>Contact a biomedical technician.</td>
</tr>
<tr>
<td>Burned out LED light.</td>
<td>Push the pressure infusor power button. If unit functions properly, continue use. Contact a biomedical technician after use to replace LED light.</td>
<td></td>
</tr>
<tr>
<td>Unit failure.</td>
<td>Contact a biomedical technician.</td>
<td></td>
</tr>
</tbody>
</table>
# Troubleshooting

## Pressure Infusor

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure infusor is not working.</td>
<td>Power cord is not plugged into the power entry module of the unit, or power cord is not plugged into a properly grounded outlet.</td>
<td>Make sure the power cord is plugged into the power entry module of the pressure infusor. Make sure the pressure infusor is plugged into a properly grounded outlet.</td>
</tr>
<tr>
<td></td>
<td>Unit is not turned ON.</td>
<td>Using the main power switch located under the pressure infusor, turn the unit ON.</td>
</tr>
<tr>
<td></td>
<td>Unit failure.</td>
<td>Discontinue use of unit. Contact a biomedical technician.</td>
</tr>
<tr>
<td>Low indicator (solid amber visual with audible alarm).</td>
<td>Pressure infusor bladder is loose or has become unattached.</td>
<td>Reattach bladder by using your thumbs to fit one side of the bladder port on the bladder retaining collar and stretch into position.</td>
</tr>
<tr>
<td></td>
<td>Pressure infusor door may not be closed and securely latched.</td>
<td>Securely close and latch the pressure infusor door.</td>
</tr>
<tr>
<td></td>
<td>Detected pressure has fallen below 230 mmHg.</td>
<td>Continue infusion or use the other side of the pressure infusor. Contact a biomedical technician after use.</td>
</tr>
<tr>
<td>High indicator (solid amber visual with audible alarm).</td>
<td>Pressure is above 330 mmHg.</td>
<td>Discontinue use of pressure infusor chamber. Use the other side of the pressure infusor. Contact a biomedical technician after use.</td>
</tr>
<tr>
<td>Leakage of fluid.</td>
<td>Bag is not spiked securely.</td>
<td>Secure spike in bag.</td>
</tr>
<tr>
<td>Bladder does not deflate after pressure is discontinued.</td>
<td>Unit fault.</td>
<td>Contact a biomedical technician after use.</td>
</tr>
</tbody>
</table>

www.rangerfluidwarming.com
Cautions:
• To prevent tipping, do not mount this unit more than 56" (142 cm) from the floor to the base of the pressure infusor unit.
• This product is designed for pressure infusion only.
• Do not sterilize the pressure infusor.
• To reduce the risks associated with environmental contamination follow applicable regulations when disposing of this device or any of its electronic components.
• Do not immerse the pressure infusor in cleaning or disinfecting solutions. The unit is not liquid proof.
• Do not clean the pressure infusor with solvents. Damage to the case, label, and internal components may result.
• Do not pinch the power cord of the pressure infusor when attaching other devices to the I.V. pole.

Warnings:
• To prevent tipping or device damage, the Ranger pressure infusor model 145 has been designed to only be mounted on a Model 90068/90124 pressure infusor I.V. pole/base.
• Never infuse fluids if air bubbles are present in the fluid line, as air embolism may result.

To reduce the risks associated with hazardous voltage and fire:
• Keep power cord visible and accessible at all times. The plug on the power cord serves as the disconnect device. The wall socket outlet shall be as close as practical and shall be easily accessible.
• Use only the power cord specified for this product and certified for the country of use.
• Do not allow the power cord to get wet.
• Do not use the pressure infusor when it appears the pressure infusor, power cord or any component is damaged. Contact 3M Health Care technical support at 1-800-228-3957.
• This equipment must only be connected to a supply mains with protective earth.

Notices:
Federal law (USA) restricts this device to sale by or on the order of a licensed healthcare professional.

• The Ranger pressure infusor unit meets medical electronic interference requirements. If radio frequency interference with other equipment should occur, connect the unit to a different power source.
• To reliably ground this Ranger pressure infusor unit, only connect to receptacles marked “Hospital Only”, “Hospital Grade” or a reliable grounded outlet.

To avoid Ranger pressure infusor damage:
• Do not immerse the Ranger pressure infusor or pressure infusor parts or accessories in any liquid or subject them to any sterilization process.
• Do not use solvents such as acetone or thinner to clean the pressure infusor; avoid abrasive cleaners.
• Clean pressure infusor exterior with soft cloth using plain water or a mild, all-purpose or nonabrasive cleaner.