



### Important machine keys:



mute key



clamp key






treatment key










blood pump key





The contents of this guide are not intended to replace the Instruction for Use document for this product. Please always refer to IFU in case of any doubt and prior to using the product.







Alarm	Cause	Resolution	Action
<b>Low Access Pressure</b>	- Access line may be kinked or clamped.	- Remove kink or unclamp the line.	 Identify the issue, resolve, press blood pump key to restart the therapy.  Use 'Help' button for further information  Cross-check the troubleshoot with another trained person.
	- Occluded or clotted access line.	- Assess vascular access blood flow and signs of clots.	
	- Access resting against vessel wall.	- Check vascular access catheter for correct size, position and site.	
	- Impeded flow from patient to the access line	- Consider further vascular troubleshooting: - Consider reversal of lines - Anticoagulant review	
	- Hypovolaemic patient.	- Check vascular catheter orientation. Rotate blood pump ¼ turn anti- clockwise. Reposition patient and/or catheter. - Check patient fluid status.	
<b>High Return Pressure</b>	- Return line may be kinked or clamped.	- Check and remove any kinks or unclamp the return line. - Check vascular access catheter for correct size, position and site. - Review blood flow.	 Identify the issue, resolve, press blood pump key to restart therapy.  Use 'Help' button for further information.
	- Clotting in the return/drip chamber.	- Review anticoagulation - Ensure adequate blood level in return/drip chamber - Decrease blood pump speed and consider a new circuit.	
	- Inadequate anticoagulation.	- Assess vascular access blood flow and signs of clot. - Review anticoagulation when starting a new circuit.	
<b>Low Return Pressure</b>	- Blood flow rate may be too low.	- Consider increasing the blood pump speed.	 Identify the issue, resolve, press blood pump key to restart therapy.  Use 'Help' button for further information.
	- Return line may be disconnected.	- Check, attach return line to the vascular catheter. - Verify at regular intervals that the return line remains attached	
	- Intravascular volume may be too low.	- Review patient fluid status.	




Alarm	Cause	Resolution	Action
High Pre filter pressure	- Check filter for signs of clotting.	- Check TMP and PR Drop trend. - Continuous rise in pressures seen, consider utilising pre-dilution, if available. - Consider increasing blood pump speed. - Review treatment trends in history. - Review pre-filter pressure reading in More screen. - Regular high pre-filter pressure alarms → consider ending the therapy.	 Identify the issue, resolve, press blood pump key to restart therapy.  Use 'Help' button for further information.
	- Pre-filter line may be kinked.	- Check access line after the blood pump is not kinked.	
Air detected	- Air or micro-foam visible in the drip chamber or return line.	- Remove air – please follow steps 1-5.	<b>Step 1:</b> Attach a luer-lock syringe to the top of the return chamber and carefully release any pressure. <b>Step 2:</b> Press the clamp key to open the return line clamp.  <b>Step 3:</b> Aspirate visible air with the syringe, leaving the line clear. <b>Step 4:</b> Press the clamp key to close the return line clamp. <b>Step 5:</b> Press the blood pump key to restart.  Use 'Help' button for further information.
	- The blood level is too low in the drip chamber.	- Raise the blood level in the drip chamber.	
	- The return line is not properly positioned in the air detector.	- Ensure return line is not "pinched" within the air detector.	
	- Air detector sensors are dirty.	- Clean the sensors.	
High TMP	- TMP has risen slowly – filter may be clogging.	- Consider increasing pre-dilution flow rate in next treatment. - Review anticoagulation.	 Identify the issue, resolve, press treatment key to restart therapy.  Use 'Help' button for further information.
	- TMP has raised rapidly – filtrate line or bags clamped/kinked.	- Unclamp or remove kink from line.	
	- High TMP from the start.	- Check blood flow/exchange flow. - Check filtration fraction.	
Low TMP	- Filtrate line is closed between the filter and waste/effluent bag/s.	- Check filtrate line is not kinked, clamped or twisted. - Line is not "pinched" within the pump housing.	 Identify the issue, resolve, press treatment key to restart therapy.  Use 'Help' button for further information.
	- Pressure transducers not securely on.	- Ensure all transducer pressure domes are secure.	
	- Blood flow may be too low.	- Consider increasing the blood pump speed.	

Alarm	Cause	Resolution	Action
<p><b>Balance alarm / Check substitution / dialysate line</b></p> <p>or</p> <p><b>Balance alarm / Check filtration / effluent line</b></p> <p>Note: If 5 counted balance alarms occur during a 20 minute period, it will not be possible to continue the treatment.</p>	<ul style="list-style-type: none"> <li>- The patient's fluid balance deviates by more than 50g in standard treatment or 20g in low volume treatment.</li> <li>- Review UF variation in the More screen.</li> <li>- Review number of balance alarms in Treatment screen.</li> </ul>	<ul style="list-style-type: none"> <li>- Verify all substitution and filtrate lines are unclamped</li> <li>- Check lines and manifold are not kinked, clamped or blocked.</li> <li>- Lines and bags not moving, are hanging freely, are not resting on the cart frame.</li> <li>- Substitution/dialysate bag/s are spiked, long and short seals are broken.</li> <li>- Ensure all fluid connections are secure and verify no fluid is leaking.</li> <li>- Avoid touching the bags during treatment.</li> <li>- Avoid adding or removing bags during treatment.</li> <li>- Avoid moving Aquarius during treatment.</li> <li>- If using multiple bags, consider reducing the number of bags.</li> </ul>	 <p>Identify the issue, resolve, press treatment key to restart therapy.</p> <p>Use 'Help' button for further information.</p>
<p><b>Blood leak</b></p>	<ul style="list-style-type: none"> <li>- Dust on BLD mirror.</li> <li>- BLD mirror is cracked/missing</li> <li>- Infrared sensor is not flashing.</li> <li>- Filter membrane damaged/ ruptured.</li> </ul>	<ul style="list-style-type: none"> <li>- Clean mirror and replace in the orientation as found.</li> <li>- Avoid using alcohol-based wipes.</li> <li>- Report to Technical Services.</li> <li>- Discontinue treatment and change circuit.</li> <li>- Review BLD% in More screen.</li> </ul>	<p>Identify the issue, resolve, press blood pump key to restart therapy.</p>  <p>Use 'Help' button for further information.</p>

Alarm	Cause	Resolution	Action
<b>Heater cools down</b>	<ul style="list-style-type: none"> <li>- Balance system has stopped for more than 15 seconds, the heater plate temperature is above 43°C.</li> </ul>	<ul style="list-style-type: none"> <li>- Heater cool down program activates.</li> <li>- Treatment is paused until the heater cools.</li> <li>- Substitution and filtrate pumps run slowly to help cooling.</li> <li>- Heater cool down management may take up to 10 minutes.</li> </ul>	<p>Treatment will restart automatically.</p> <p>Use 'Help' button for further information.</p>
<b>Check transducer connections</b>	<ul style="list-style-type: none"> <li>- The pressure domes have not detected any pressure change for 15 seconds.</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure the domes are secure.</li> <li>- <b>IMPORTANT:</b> do not remove any pressure domes during treatment.</li> </ul>	 <p>Identify the issue, resolve, press treatment key to restart therapy</p> <p>Use 'Help' button for further information.</p>
<b>Change substitution/dialysate bag</b>	<ul style="list-style-type: none"> <li>- The substitution/dialysate bag/s are empty.</li> </ul>	<p><b>Regular Therapies:</b></p> <ul style="list-style-type: none"> <li>- Prepare new substitution/dialysate bag/s during 'Bag change soon' advisory at 10 minutes.</li> <li>- If changing bag/s before the timer reaches zero, stop the treatment pumps.</li> <li>- Turn the scale, change the bag/s on the green substitution scale.</li> <li>- If changing bag/s at zero time, machine will stop the treatment pumps. Turn the scale, change the bag/s on the green substitution scale.</li> <li>- Start the treatment by pressing the treatment key.</li> </ul>	 <p>Identify the issue, resolve, press treatment key to restart therapy</p> <p>Use 'Help' button for further information.</p>
		<p><b>RCA Therapies:</b></p> <ul style="list-style-type: none"> <li>- Prepare new substitution/dialysate bag/s during 'Bag change soon' advisory at 10 minutes.</li> <li>- If changing bag/s before the timer reaches zero, stop the treatment pumps.</li> <li>- Ensure treatment and calcium pumps have stopped.</li> <li>- Turn the scale, change the bag/s on the green substitution scale.</li> <li>- Blood and citrate pumps continue for approximately 5 minutes during the bag change.</li> <li>- If substitution bag change is complete before the blood pump stops, press treatment key to restart.</li> <li>- If the blood pump stops before substitution bag change is complete: press blood pump key to restart.</li> <li>- If changing bag/s at zero time, machine will stop the treatment pumps. Turn the scale, change the bag/s on the green substitution scale.</li> <li>- If substitution bag change is complete before the blood pump stops, press treatment key to restart.</li> <li>- If the blood pump stops before substitution bag change is complete: press blood pump key to restart.</li> </ul>	 <p><b>Blood pump still running?</b> Press the treatment key to restart.</p>  <p><b>Blood pump stopped?</b> Press the blood pump key to restart.</p> <p>Use 'Help' button for further information.</p>

Alarm	Cause	Resolution	Action
<b>Change filtrate/effluent bag</b>	- The filtrate bag/s are full.	<b>Regular Therapies:</b> <ul style="list-style-type: none"> <li>- Prepare new substitution/ dialysate bag/s during 'Bag change soon' advisory at 10 minutes.</li> <li>- If changing bag/s before the timer reaches zero, stop the treatment pumps.</li> <li>- Turn the scale, change the bag/s on the green substitution scale.</li> <li>- If changing bag/s at zero time, machine will stop the treatment pumps. Turn the scale, change the bag/s on the green substitution scale.</li> <li>- Start the treatment by pressing the treatment key.</li> </ul>	 <p>Identify the issue, resolve, press treatment key to restart therapy</p> <p>Use 'Help' button for further information.</p>
		<b>RCA Therapies:</b> <ul style="list-style-type: none"> <li>- Prepare new substitution/ dialysate bag/s during 'Bag change soon' advisory at 10 minutes.</li> <li>- If changing bag/s before the timer reaches zero, stop the treatment pumps.</li> <li>- Ensure treatment and calcium pumps have stopped.</li> <li>- Turn the scale, change the bag/s on the green substitution scale.</li> <li>- Blood and citrate pumps continue for approximately 5 minutes during the bag change.</li> <li>- If substitution bag change is complete before the blood pump stops, press treatment key to restart.</li> <li>- If the blood pump stops before substitution bag change is complete: press blood pump key to restart.</li> <li>- If changing bag/s at zero time, machine will stop the treatment pumps. Turn the scale, change the bag/s on the green substitution scale.</li> <li>- If substitution bag change is complete before the blood pump stops, press treatment key to restart.</li> <li>- If the blood pump stops before substitution bag change is complete: press blood pump key to restart.</li> </ul>	 <p><b>Blood pump still running?</b> Press the treatment key to restart.</p>  <p><b>Blood pump stopped?</b> Press the blood pump key to restart.</p> <p>Use 'Help' button for further information.</p>

Alarm	Cause	Resolution	Action
<b>Low Calcium flow</b>  or  <b>High Calcium flow</b>	- Calcium line is clamped or bag not spiked.	- Check calcium line is unclamped and confirm fluid flow.	 Identify the issue, resolve, press treatment key to restart therapy.  Cross-check the troubleshoot with another trained person.  Stop treatment and change the line set if the alarm occurs repeatedly.  Monitor and control the patient's systemic calcium levels as your local protocol indicates.  Use 'Help' button for further information.
	- Calcium bag is moving, or touching another bag or line set.	- Ensure calcium bag is not moving/swinging, e. g. after a bag change. - Ensure calcium bag is not touching another bag or the line set. - Reduce the number of bags on the substitution and filtrate scales if they are touching the calcium bag.	
	- Calcium pump segment is loaded incorrectly or not loaded at all.	- Ensure calcium pump segment is loaded correctly into the silver pump; line is not "pinched" by the pump, and no kinks are present in the line. - Ensure that the drip chamber is adequately filled and connection is secured.	
	- Calcium pump segment is not correctly primed.	- Ensure there are no clamps or kinks on the calcium line, including connection to the calcium bag. - Ensure drip chamber is adequately filled and the connection is secure.	
<b>Reminder: Check Calcium!</b>	- Reminder "Check calcium."	- Please follow your local RCA protocol guidance for the sampling and control of calcium levels.	 Press the mute key to reset the reminder.  Use 'Help' button for further information.
<b>Change Calcium bag</b>	- The calcium bag is empty.	- Prepare the next calcium bag during the "Calcium bag change soon" advisory at 10 minutes. - Treatment and calcium pumps stop automatically. - <b>Blood and citrate pumps continue for approximately 5 minutes during the bag change.</b> - Clamp the calcium line. - Change the calcium bag on the silver scale, ensuring no air is entrained. - Verify that the drip chamber is more than half full. - Unclamp the calcium line - If the calcium bag change is complete before the blood pump stops: treatment key to restart. - If the blood pump stops before the calcium bag change is complete: blood pump key to restart.	Identify the issue, resolve.   <b>Blood pump still running?</b> Press the treatment key to restart.   <b>Blood pump stopped?</b> Press the blood pump key to restart.  Use 'Help' button for further information.

Alarm	Cause	Resolution	Action
<b>Low Citrate flow</b>  or  <b>High Citrate flow</b>	- Clamp line is clamped or citrate bag is not spiked/ frangible pin was not broken.	- Check citrate line is unclamped and confirm fluid flow.	 Identify the issue, resolve, and press the blood pump key to restart the therapy.  Cross-check the troubleshoot with another trained person.  Stop treatment and change lines if the alarm occurs repeatedly.  Monitor and control patient for signs of citrate overload as your local protocol indicates.  Use 'Help' button for further information.
	- Citrate bag is moving/ swinging or touching other bag/s or line set.	- Ensure citrate bag is not moving/swinging, e. g. after a bag/s change - Ensure citrate bag is not touching other bags or the line set. - Reduce the number of bags on the substitution and filtrate scales if they are touching the citrate bag. - Ensure there are no kinks or clamps on the citrate line, including connection to the citrate bag.	
	- Citrate pump segment is loaded incorrectly into the citrate pump or not loaded at all.	- Ensure the citrate line is loaded correctly into the black pump; line is not "pinched" by the pump, and no kinks are present in the line.	
<b>Citrate / Calcium scale overload</b>	- Too much weight on the citrate and/or calcium scales.	- Check that citrate and calcium bags are not moving e. g. after a bag change. - Check that calcium and citrate bags weigh less than 2.2 kg for each scale.	 Identify the issue, resolve, press blood pump key to restart therapy.  Use 'Help' button for further information.
<b>Citrate bag change</b>	- The citrate bag is empty.	- Prepare the next citrate bag during the 'Citrate bag change soon' advisory at 10 minutes. - Treatment and calcium pumps stop automatically. - <b>Blood and citrate pumps continue for a short time and then stop automatically.</b> - <b>Wait for "Blood pump off" to be displayed on the screen.</b> - Clamp the citrate line or Aquaspikes-Y clamps. - Change the citrate bag on the black scale, ensuring no air is entrained. - Verify the drip chamber is more than half full. Unclamp the citrate line or Aquaspikes-Y clamps. - Press the blood pump key twice to restart the treatment.	 Identify the issue, resolve, press blood pump key twice to restart therapy.  Use 'Help' button for further information.