

Auto Prime and Assisted Reinfusion

Quick Reference Guide



**FRESENIUS
MEDICAL CARE**

RENAL TECHNOLOGIES

Auto Prime Simplifies the Priming Process.

The Auto Prime feature offers more than on-screen graphics to assist you with setup. It reduces steps in the priming process and provides advanced features that optimize air removal from the dialyzer and bloodlines.

How Auto Prime Works with the 2008T BlueStar™ Hemodialysis Machine:

- Starting a new treatment, select Auto Prime on the Test & Option screen before stringing the bloodlines and then follow the on-screen prompts for details on attaching the bloodlines.
 - If Auto Start is being used and this is the first treatment of the day, the tests that do not require a primed bloodline will run automatically when concentrates are connected. The remaining four, which require the bloodline to be attached and primed, will run during the Auto Prime process.
 - If Auto Start is not being used or this is not the first treatment of the day, both tests should be run before selecting Auto Prime. The tests that do not require a primed bloodline will run if the dialysate lines are on the shunt and there is no level detector alarm.

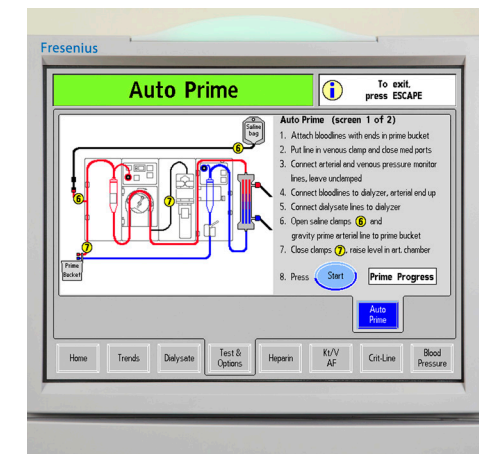
WARNING! The machine will beep once you select and confirm the Auto Prime feature. This alarm system test ensures that audible alerts are functioning properly during operation. If the machine fails this or any of the other pressure, alarm, and DIASAFE® tests and the cause cannot be corrected, or if it fails subsequent assessments, it should not be used for treatment. Remove the machine from service and have it inspected by a qualified technician to correct the problem.

STEP 1

Attach bloodlines with ends in prime bucket.

- Follow the on-screen diagram to snap the drip chambers into their holders and aseptically place the patient ends of the bloodlines into the priming bucket clip.

WARNING! Do not allow the ends to touch the fluid in the bucket to prevent contamination.

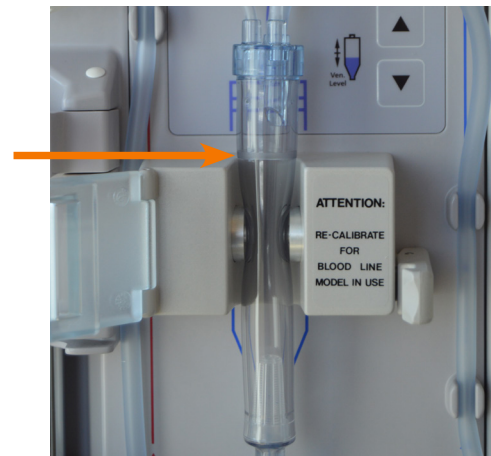


STEP 1 (continued)

- Snap the drip chambers into their holders.



- Ensure the venous chamber is fully inserted into the venous drip chamber holder so that the fill line is aligned with the top of the holder.



- Snap the dialyzer ends of the bloodlines into the bloodline holders on the dialyzer holder.



STEP 2

Put bloodline in venous clamp and close med ports.

- The venous clamp will automatically open and close to enable air to move through the bloodlines without user intervention.



STEP 2 (continued)

- Close the clamps on the medication ports on each of the drip chambers.

⚠ WARNING! The tubing beneath the venous drip chamber must be inserted into the venous line clamp and the optical detector.



STEP 3

Connect arterial and venous pressure monitor lines and leave unclamped.

- The arterial and venous pressure monitor lines must be unclamped and connected to their pressure ports.



STEP 4

Attach bloodlines to dialyzer, arterial end up.

- Connect the arterial and venous bloodlines to the dialyzer with the red, arterial bloodline at the top of the dialyzer.



STEP 5

Connect dialysate lines to dialyzer.

- With the bloodlines already connected as shown in the on-screen diagram, connect the dialysate lines to the dialyzer.



STEP 5 (continued)

- Pull on the dialyzer connectors to make sure they are firmly connected to the dialyzer.



- Close the shunt door immediately after confirming secure connection.



STEP 6

Open saline clamps **6** and gravity prime arterial line to prime bucket.

- Open the saline port clamp (6) on the arterial bloodline. Then, gravity prime the patient end of the arterial bloodline below the saline "T" with saline.



STEP 7

Close arterial and heparin **7** clamps and raise level in arterial chamber.



STEP 7 (continued)

- When the arterial bloodline below the saline "T" is primed with saline, close the clamp at the patient end of the arterial blood.

- Close the heparin line clamp.



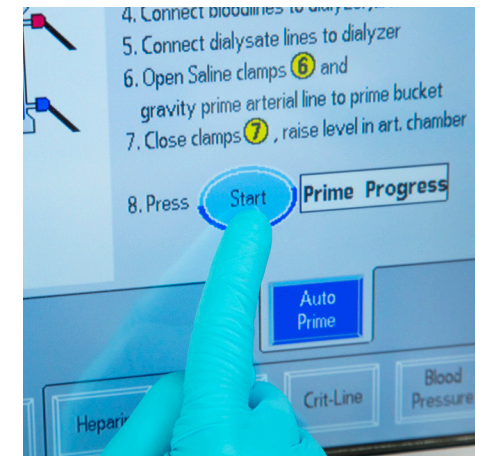
- Use the ▲ button (level adjust) on the blood pump to set the arterial drip chamber to an acceptable level if necessary.



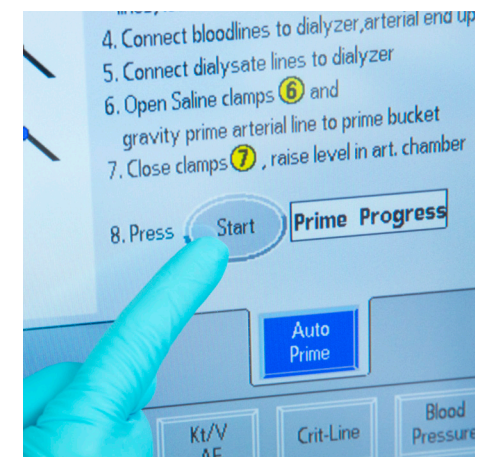
STEP 8

Press the **Start** button.

- This action automatically starts the blood pump and runs saline through the bloodlines.

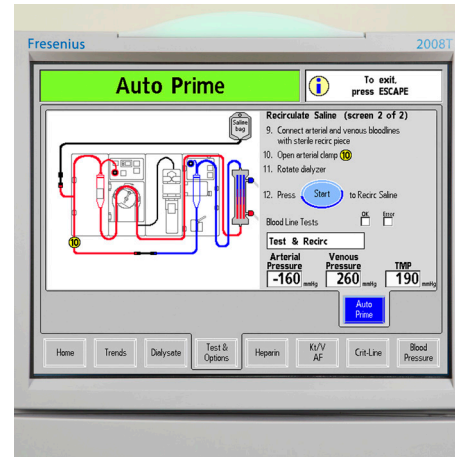


- The **Start** button will be grayed out during priming.



STEP 8 (continued)

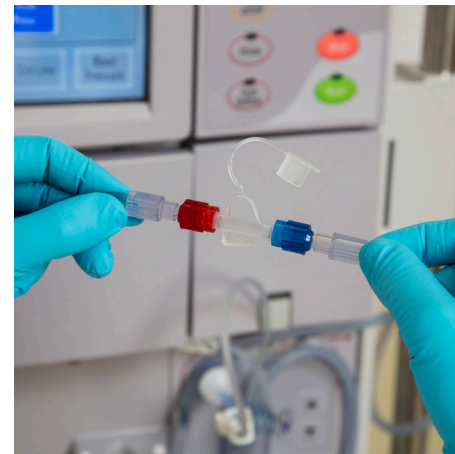
- When the prime progress bar graph reaches 100%, the next set of instructions will be displayed to recirculate the saline.



STEP 9

Connect arterial and venous bloodlines with a sterile recirculation piece.

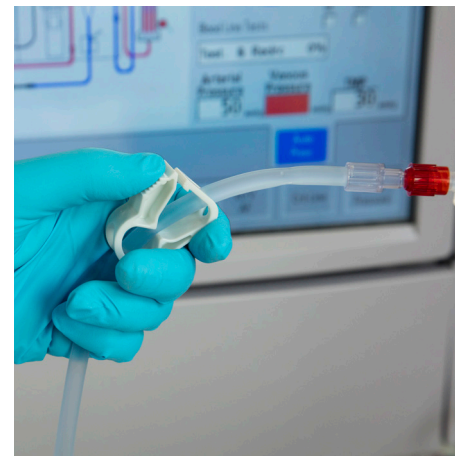
- Aseptically connect the patient end of the arterial bloodline to the patient end of the venous bloodline using a sterile recirculation piece as shown in the diagram.



STEP 10

Open arterial clamp 10

- Open the clamp at the patient end of the arterial bloodline.



STEP 11

Rotate dialyzer

- Rotate the dialyzer to clear the remaining air.
- The Auto Prime method requires the dialyzer to be flipped only once during setup and the treatment can be run with the dialyzer venous end up, if desired.

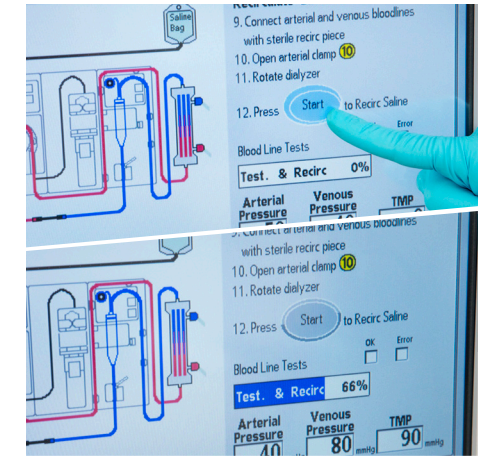


STEP 12

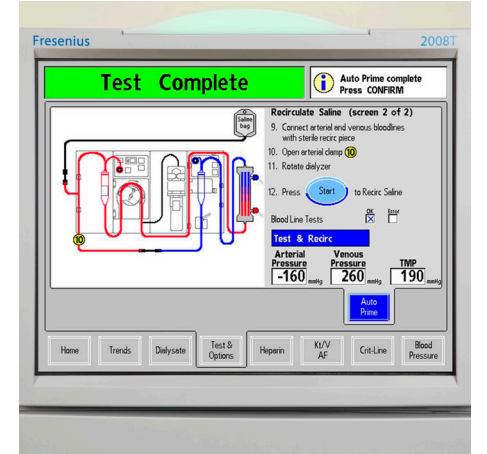
Before pressing the start button, ensure the venous chamber is at the proper fill level. Use the level adjust keys to raise the level, if needed.

Press the **Start** button.

- Blood pump will start automatically and recirculate the saline.
- The remaining bloodline tests will begin, followed by the saline recirculation program.
- A bar graph will fill to show the progress of the test and recirculation program.
- The **Start** button will be grayed out as the test runs.



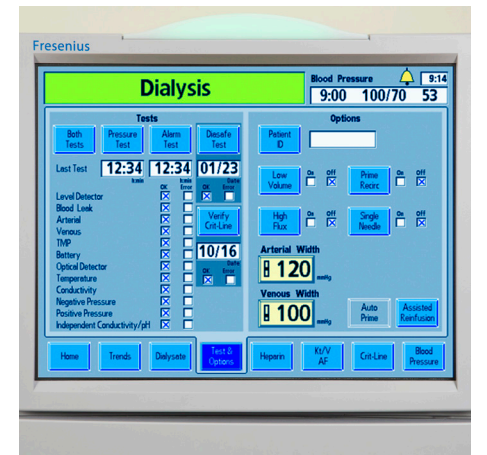
- When the "Test & Recirc" bar graph reaches 100%, the machine will display the message, "Auto Prime Complete, Press **Confirm**," in the dialogue box.



- Press the **Confirm** button to exit this screen and view the Test & Options screen.



- All self-tests are now complete.
- The message "Test Complete" will be displayed in the Status Box. Press the **Reset** key to clear the message.



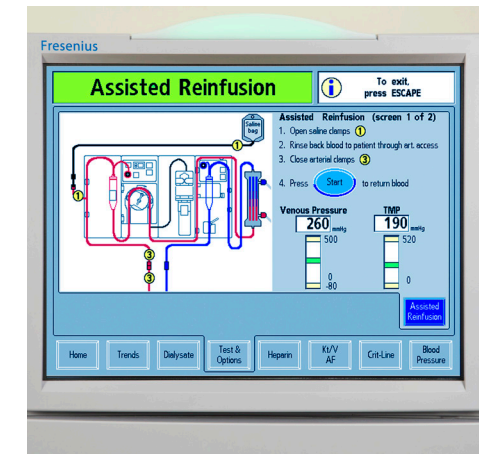
Assisted Reinfusion

- Assisted Reinfusion uses the venous blood detector to optically monitor the return of blood to the patient and assists with this process.

START

- Pause the TX Clock. Then, select the **Assisted Reinfusion** button on the Test & Options screen. This will stop the blood pump and display the first Assisted Reinfusion screen.
- To begin returning the patient's blood, select the **Assisted Reinfusion** button.

Note: The **Assisted Reinfusion** button is unavailable when either Low Volume or Single Needle options are set to 'On'.



STEP 1

Open saline clamps **1**

- Open each of the two clamps labelled (1) in the on-screen diagram so saline can flow into the arterial bloodline.



STEP 2

Rinse back blood to patient through arterial access.

- Rinse the blood in the patient end of the arterial bloodline back per clinic protocol.

WARNING! Carefully observe the arterial bloodline for the presence of air. Be sure no air will be infused into the patient.



STEP 3

Close arterial clamps 3

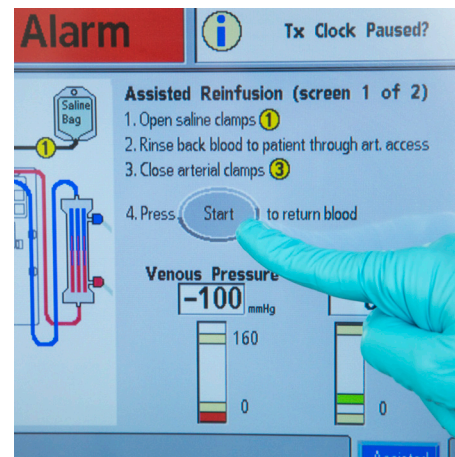
- When the blood in the arterial bloodline has been returned, close the two clamps on the arterial bloodline.



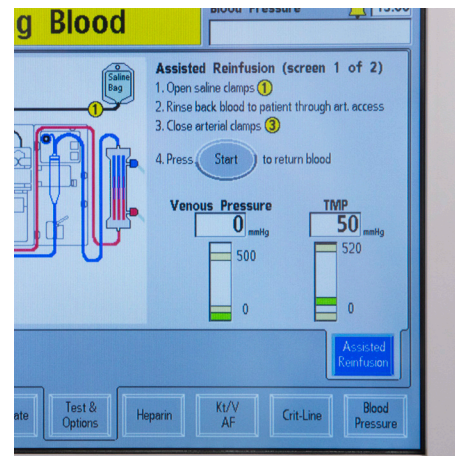
STEP 4

Press **Start** button to return blood.

- Blood pump will start automatically.
- The blood pump will run for a few seconds after saline has passed the optical detector in the venous clamp to ensure all the blood is returned through the patient's venous access.



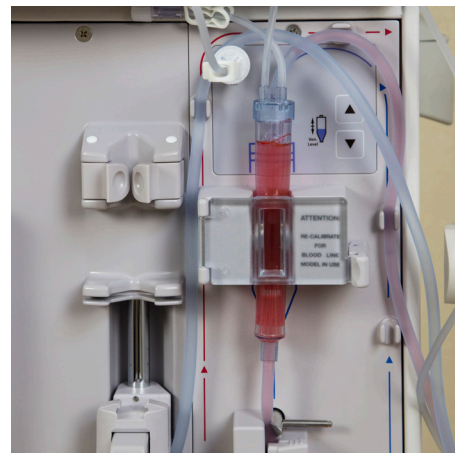
- The screen will show the venous and TMP pressure bar graphs similar to the ones on the Home screen.
- Monitor the pressures when returning blood to the patient.



STEP 5

Perform additional rinse back per clinic protocol.

- After the blood has been returned, the blood pump will stop running.
- Follow clinic protocol after the blood has been returned to rinse back any more saline, if required.
- This additional rinseback may include a saline bolus if directed by clinic protocol.
- To continue to run the blood pump after the blood has been returned, press the **Start/Stop** button on the "Blood Pump" module.



STEP 6

Close venous clamps 6

- Close the two venous clamps labelled (6) in the on-screen diagram

Disconnect arterial and venous lines

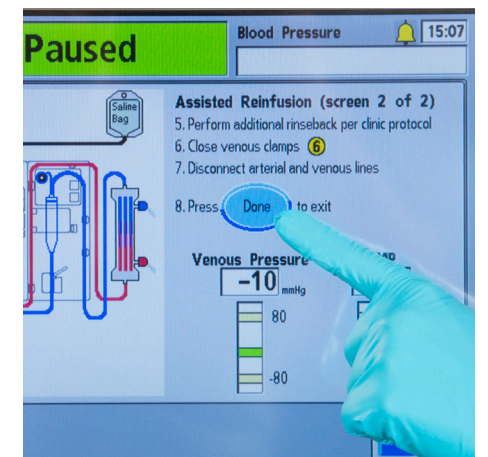
- After the venous clamps are closed, disconnect the arterial and venous bloodlines and perform access site care.



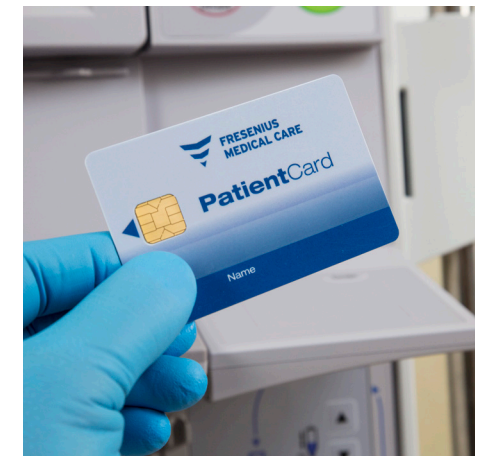
STEP 7

Press **Done** button to exit.

- Press the **Done** button to exit the Assisted Reinfusion screen and return to the Test & Options screen.



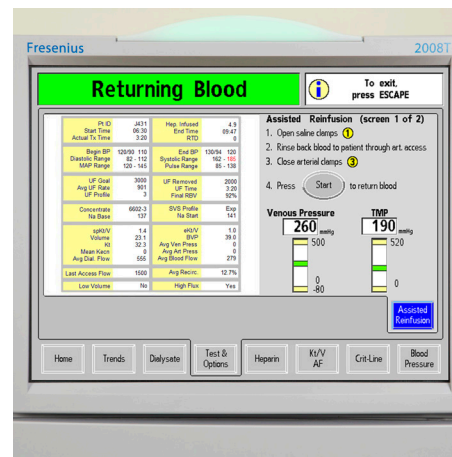
- If the PatientCard was used to program the treatment, the 2008T BlueStar Hemodialysis Machine will now attempt to save the current treatment data. Make sure the PatientCard is still inserted into the reader on the side of the machine.
- If a bibag disposable is connected to the machine, it may be emptied at this time. Afterward, the dialyzer may be emptied and the bloodlines must be removed from the machine.



Access to Trends/Kecn Values

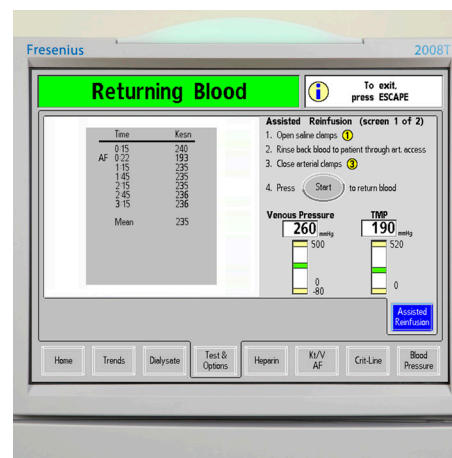
First Assisted Reinfusion screen with Trends screen values displayed.

- While the blood is being returned, it is possible to monitor the values shown on the Trends screen in real time (for software versions 2.7.2 or greater).
- Simply tap the picture of the bloodlines and the values will be displayed as in the example to the right.



First Assisted Reinfusion screen with Kecn values displayed.

- To see a list of online clearance measurements of Kecn values, tap the picture a second time. The time and measurement value will be displayed as in the example at right.
- Tap the picture a third time to return to the bloodline illustration.



This guide is designed to complement your facility's training in the use of the 2008T BlueStar Hemodialysis Machine. It is not intended to replace the **2008T Hemodialysis Machine Operator's Manual** (P/N 490122) which contains detailed instructions for all machine functions.

Indications for Use:

2008T BlueStar Hemodialysis Machine: The 2008T BlueStar Hemodialysis Machine is indicated for acute and chronic dialysis therapy in a healthcare facility.

Additional therapy options for patients receiving hemodialysis include: Isolated Ultrafiltration, Sustained Low Efficiency Dialysis (SLED), and low volume hemodialysis (patients weighing ≥ 20 kg and ≤ 40 kg). This machine accommodates the use of both low flux and high flux dialyzers. The SLED therapy option is not to be used for patients weighing ≤ 40 kg. The 2008T BlueStar Hemodialysis Machine is not to be used for plasma replacement therapies, for patients weighing less than 20 kg, or for renal therapies using substitution fluid.

bibag System (Optional): The bibag system is used with three stream proportioning hemodialysis systems equipped with the bibag module such as the 2008T BlueStar Hemodialysis Machine and is intended for use in bicarbonate hemodialysis for acute and chronic renal failure. The bibag is intended for extracorporeal bicarbonate hemodialysis according to a physician's prescription.

Caution: Federal (US) law restricts these devices to sale only by or on the order of a physician.

Note: Read the Instructions for Use for safe and proper use of these devices. For a complete description of hazards, contraindications, side effects and precautions, see full package labeling at fmcna.com.



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RENAL TECHNOLOGIES

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