



Aquarius™ System

Quick Guide

AQUARIUS™ SYSTEM – QUICK GUIDE

Note: The use of this quick guide for Aquarius™ System does not replace the Instructions for Use Aquarius System.

HINTS AND TIPS

1. Aqualine, treatment duration **up to 72hr**; maximum blood pump speed of **450 ml/min**.
For treatment duration **up to 100hr**; maximum pump speed of **300ml/min**.
2. Aqualine S, treatment duration **up to 72hr**; maximum blood speed of **300ml/min**. For treatment duration **up to 100hr**; maximum blood pump speed of **100ml/min**.
3. Treatment time reminders;
 - a) 24, 48 and 72hrs – Yellow single reminder, removed by pressing the mute key
 - b) 100hrs – Red reminder, “Maximum treatment time”, repeats 8 times at 1hr interval.
 - c) Red “Max operation time, change set” if repetition reminder removed 8 times.

****CHECK***

A hemofilter is used for CRRT therapies. A plasmafilter is used for Therapeutic Plasma Exchange. To ensure patient safety Nikkiso recommends two trained users must always verify and suitably document the correct choice of filter has been selected for the correct therapy

TO SET PROGRAM (for first program, use steps 2 & 4-7 only)

1. Write down displayed “Total fluid loss” from Home screen
2. Go to programming
3. Select “Reset totals” - **Red Box**: Are you sure? – select “YES”
4. If no fluid loss required, set “Time” only. (Note: leave “Fluid loss rate” and “Total fluid loss” at zero)
5. Fluid removal, enter “Fluid loss rate ml/h”
6. Enter “Fluid loss total” i.e. multiply hourly fluid loss rate by cycle, e.g. 4hrs
7. Confirm number of bags, heparin rate and heater temperature settings match the patient prescription.
8. Select “Exit”
9. Press **flashing green light** on Treatment key

TO PUT A PATIENT ON AFTER PRIMING

(Recirculate for typically 15 minutes; Select “Go to recirculation” then press Blood Pump key)

1. Select “Go to connection”- Patient weight may be selected in the 'Start Connection' screen.
2. Select “Double connection” - **Red Box**: Are you sure? - select “YES”
3. **Yellow Box** appears - follow steps:
 - a. Ensure your program is set and prepare vascular catheter for connection
 - b. Connect **access (RED)** and **return (BLUE)** lines and open all clamps
 - c. Select “Start blood pump”

NB: Blood will be pulled from the patient and the circuit is filled until the return line drip chamber is full of blood, at this point a **flashing green light** will appear on Treatment key, don't start the treatment yet.

4. Increase blood pump to desired level as patient tolerates, typically 2-5 minutes.
5. Press **flashing green light** on Treatment key when ready: Aquarius will display “balance initializing”, then treatment (and RCA) starts

CHANGE BAGS

1. Await “Change___ bag” message, if you wish to change substitution or filtrate bags before this message appears, press the Treatment key.
2. Ensure there is a **flashing green light** on the Treatment key
3. Rotate the scale so the relevant bag is at the front
4. Clamp relevant lines / bag/s

5. Change relevant bag/s
6. UNCLAMP relevant lines / bags / activate wings on Accusol Clampex
7. Rotate scale back to centre position
8. (repeat steps 3-7 if both bags due for change)
9. Press **flashing green light** on Treatment key when ready: Aquarius will display "balance initializing", treatment starts.

CHANGE HEPARIN SYRINGE WHILST IN TREATMENT MODE

1. Select "Options"
2. Select "Change syringe"
3. **Red Box 1**: Clamp the heparin line - then select "YES"
4. **Red Box 2**: Remove the heparin syringe from the driver - then select "YES"
5. Set volume in new syringe
6. Insert new syringe
7. UNCLAMP HEPARIN LINE
8. Program heparin rate if required
9. **Red Box**: Heparin line not primed – if line has already been used select "YES"

END TREATMENT: WASH BLOOD BACK TO PATIENT

1. Select "Options"
2. Select "End Treatment"
3. **Red Box**: Are you sure? – select "YES"
4. **Yellow box** appears and blood pump stops – follow steps:
 - a. Disconnect **RED access** line from patient and connect to a bag of saline (250 ml bag) via spike and 3-way tap or y-connector
 - Start blood pump
 - Stop blood pump when return line is a rose colour or Aquarius alarms HIGH RETURN PRESSURE
5. Select "NEXT"
6. New **Yellow box** appears – follow steps:
 - a. Disconnect **BLUE return** line from patient and connect to the bag of saline via 3-way tap / y-connector
7. Select "NEXT"
8. **Red Box**: Disconnection complete? – select "YES"
9. **When "Aquarius OFF" appears, go to SAFE REMOVAL of LINES below**

SAFE REMOVAL OF LINES - ALWAYS *Wear full Personal Protective Equipment*

1. Ensure **RED access** and **BLUE return** lines are connected to a bag of saline via a 3-way tap / y-connector with **ALL** clamps OPEN
2. Place saline bag into disposal/ waste container in area underneath / in front of Aquarius
3. Ensure there are NO **Red Box** alarm messages on screen - follow if required
 - a. If **ACCESS** pressure +/- 400 mmHg, use an Aquasafe or 50 ml luer lock syringe to aspirate the pre-infusion/ rescue port on the **RED Access** line until pressure is below 100 mmHg.
 - b. If **RETURN** pressure +/- 400 mmHg, use an Aquasafe or 50 ml luer lock syringe to aspirate the **BLUE return** line drip chamber until pressure falls below 100 mmHg.
 - c. If **TMP** pressure +/- 200 mmHg or **PRE-FILTER** pressure +/- 400 mmHg, use an Aquasafe or 50 ml luer lock syringe to aspirate the pre-dilution line until pressure falls below 100 mmHg.
4. Remove **Blood pump** tubing and **Replacement Fluid pumps** tubing from the pumps BACKWARDS – i.e. pull tubing from the "top down". Remove **Filtrate pump** tubing from the pumps in direction of arrow, i.e. from the "bottom up".
5. Now remove the rest of the line set and discard into disposal / waste container (**Filtrate** and surplus **Replacement Fluid** can be disposed of as usual)
6. **ONLY** Select "Aquarius OFF" after all tubing and bags are removed.