



iSED® (Serial Numbers >5000) and iSED ELITE Automated Erythrocyte Sedimentation Rate Analyzer

Syringe Probe Tube Cleaning Procedure, 222-28-005 Rev. 1

Purpose

The purpose of this procedure is to provide a guide on performing as-needed syringe probe maintenance on the iSED/iSED ELITE ESR Analyzer.

Scope

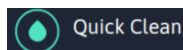
This applies to iSED (serial numbers greater than 5000) or iSED ELITE instruments that are experiencing Syringe Probe Errors. The iSED/iSED ELITE analyzers will alert the user when a Syringe Probe Error has occurred.

Materials Required

1. All necessary Personal Protective Equipment including Protective Gloves like nitrile gloves and safety glasses.
2. 10% Sodium Hypochlorite Solution
3. Deionized water
4. Kim-wipes or gauze
5. Flathead screwdriver (if required)

Procedure

1. Power on iSED/iSED ELITE by pressing the power switch on the back of the analyzer.
2. Run a Wash Cycle by pressing the Wash Cycle Icon in the Maintenance Screen Page:



3. Power off instrument.

4. Remove needle access door by unscrewing metal thumb screw and lift door upward to remove.
See Figure 1.

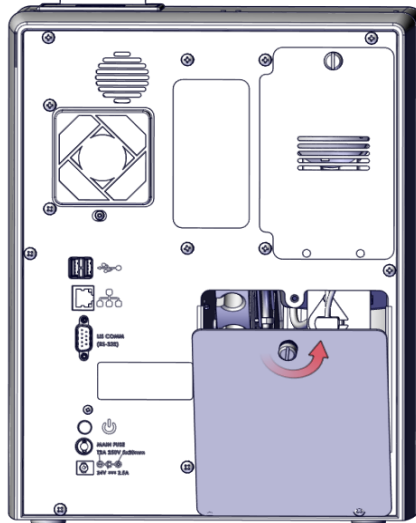


Figure 1

5. Unscrew thumbscrew about ½ inch and see if syringe pivots towards you. If it does not pivot, try unscrewing a little more, repeat until syringe pivots. See Figure 2.

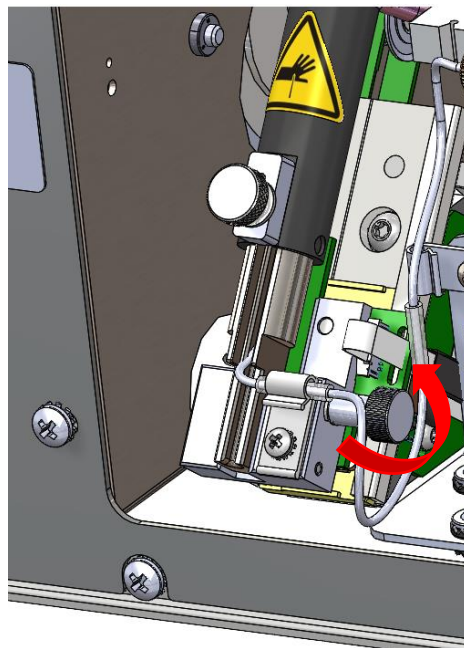


Figure 2

6. Pivot the Needle Piston Assembly outward and remove the tubing as shown. See Figure 3.



Figure 3

7. **WARNING:** Ensure **protective rubber gloves** are worn while performing the steps listed below. Remove Thumb Screw from Probe Tube shown in Figure 4. Now, you can remove the Probe Tube Assembly as seen in Figure 5 and the spring from Needle Piston Assembly. **CAUTION: This will expose the needle and could cause potential injury.**



Warning: Potential needle injury due to exposed needle



Figure 4



Figure 5

8. Clean spring and needle with deionized water if any dried blood is seen. Return to original position while needle is exposed.
9. Unscrew the metal “Wash Ring” from the top of the probe tube. See Figure 6. At the same time verify that the magnet is securely in place. See Figure 7.



Figure 6



Figure 7



Figure 8

10. Clean the inside of probe tube with Kim-Wipe or gauze lightly dampened with deionized water. See Figure 8.

11. Soak the silver wash ring in a 10% bleach solution for 5-10 minutes. See Figure 9.



Figure 9

12. Thoroughly rinse the silver wash ring with deionized water to remove any excess bleach.
13. Screw wash ring back on syringe probe tube. See Figure 10.



Figure 10

14. Place probe tube over needle and spring. See Figure 11.
15. Replace the Thumb Screw on the Needle Tube Housing. You may will have to compress the Spring and Needle Tube Housing slightly in order to tighten the Thumb Screw. **COMPRESSING THE ASSEMBLY WILL CAUSE THE NEEDLE TIP TO BECOME EXPOSED FROM THE ASSEMBLY. BE AWARE OF PIERCING INJURY.** Thumb Screw should be tightened down completely. See Figure 12.



Warning: Potential needle injury due to exposed needle



Figure 11



Figure 12

16. Replace the Washing Tube back onto the Barb connector of the Needle Tube Housing. Pivot the Needle Piston Assembly back into the operational position. See Figure 14.



Figure 14

17. Tighten thumb screw completely. Verify Needle Piston Assembly is locked in position and cannot pivot outwards. Replace the Needle Tube into the Tube Clip. See Figure 15.

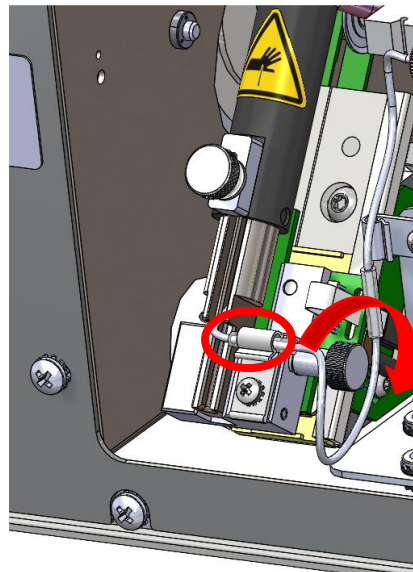


Figure 15

- Power on iSED. Perform 3 wash cycles (Quick Clean) and observe probe tube for leaks. See Figure 16 for steps sequence.

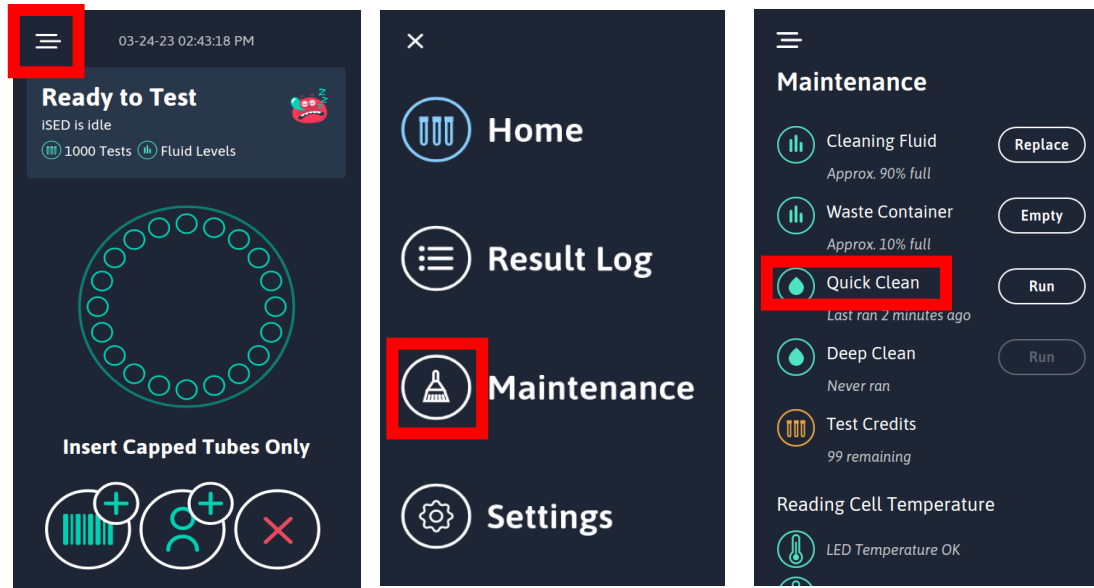


Figure 16

- Press the Settings Button in “Options” screen (Middle page in Figure 16). Follow the steps sequence in Figure 17. Enter Robotic Controls Pin 19912, and press Continue. Verify that the Robotic Controls Page has Needle in “Up” position highlighted by green color. If this is not observed, contact tech service.

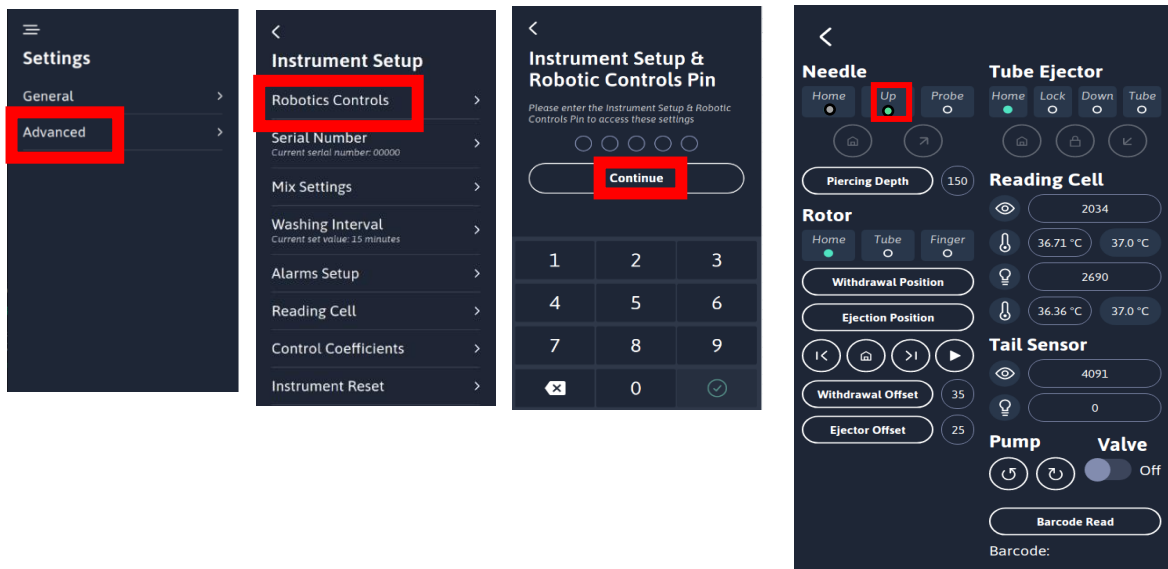


Figure 17

20. Press the back buttons on top left of each screen seen in Figure 17 and go back to the “Options” page.
21. Go to Maintenance Page and perform Quick washes “three” times. See Figure 18.
22. Go back to “Option” screen by pressing the “Burger” icon on top left of screen. Press Settings Button >Advanced and verify the Wash status from Wash cycle log printout which indicates “Wash OK”. See Figure 18.

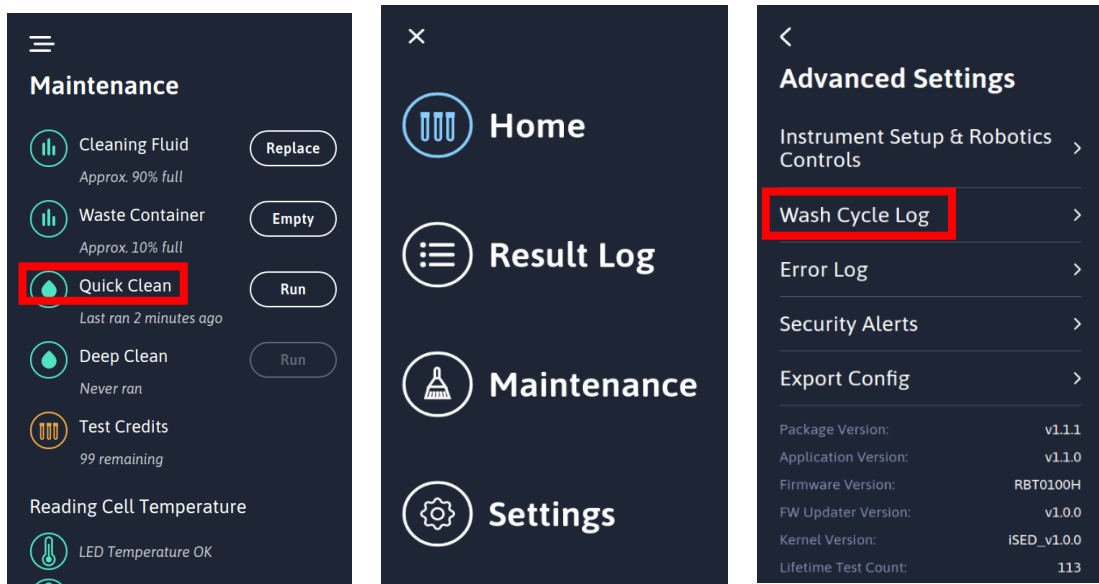


Figure 18

23. Replace rear access door and tighten thumb screw. See Figure 19.



Figure 19