Chapter 6
Preventive Maintenance/Total Service Call

OVERVIEW

Chapter 6 contains the Preventive Maintenance and Total Service Call procedures. These procedures ensure that all applicable diagnostic tests have been performed to verify proper instrument operation.

To the left of each procedure number are two columns titled:
- Total Service Call (TC)
- Preventive Maintenance (PM)

Checkmarks are provided in the appropriate column(s) to indicate whether the procedure is to be performed as part of the TC and/or PM tasks.

It is strongly suggested that control material be run and verified before accepting any results.

CHAPTER CONTENTS

WARNING !

Procedures in this chapter require following biohazard, electrical hazard, and electrostatic discharge precautions.

Always begin the service call with analyzer decontamination.

PREVENTIVE MAINTENANCE/TOTAL SERVICE CALL

Total Call	PM	Procedure
✓	✓	1. Check Modification Status for proper TSB level.
✓	✓	2. Check Maintenance Log for possible problems.
✓	✓	3. Check Water Quality Station: a. 1 MΩ light on b. No leaks c. 20psi ± 2 psi input d. 6psi ± 1 psi output
✓	✓	4. Check all cuvettes: a. Held tight in Cuvette Carrier. b. Aligned with Incubator.
✓	✓	5. Inspect; rebuild or replace as necessary: a. Sample Syringe (RR - 6.6) b. Reagent Syringe (RR - 6.4)
	✓	6. Inspect; replace as necessary: a. Sample Probe (RR - 4.4) b. Sample Diluent Valve (RR - 6.7) c. Syringe Tubing (RR - 6.9) d. Reagent Probe (RR - 5.6)
✓	✓	7. Ensure that all fans are running: a. Master Card Cage Fan b. Incubator Optics Fan c. Reagent Cooler Fan d. ISE Fan e. Power supplies fans
✓	✓	8. Clean all Dual Optics Sensors with compressed air.
✓	✓	9. Check Mix Coil resistance when cool. If ≤ 2.4 KΩ, replace Mix Arm (RR - 10.6).
	✓	10. Clean CRT Bezel and Touchscreen Array (VP - 40).
✓	✓	11. Clean Reagent Bar Code Reader window.
	✓	12. Rinse Diluent Bottle; replace 70-Micron Filter (RR - 8.3).
✓	✓	13. Check all interior tubing. Replace as necessary.
✓	✓	14. Replace exterior waste tubing.

Total Call	PM	Procedure
✓	✓	15. Check all robotics; adjust if needed (VP - 36, VP -37, VP - 38). Print Step Tables.
	✓	16. Check/lubricate (VP - 55): a. Syringe Drives b. Sample Arm c. Reagent Arm
✓	✓	17. a. Clean and lube ISE lead screw as needed. b. Calibrate ISE. (Refer to ISE Service Manual.)
	✓	18. Clean Incubator (VP - 44). Replace Incubator lenses as necessary (RR - 11.13).
✓	✓	19. Clean: a. Calibration Wheel windows on both sides b. Relay Lens (VP - 50)
✓	✓	20. Inspect Lamp and Heat Glass; replace as necessary (RR - 11.12, RR - 11.10).

Total Call	PM	Procedure
✓	✓	21. Perform Lamp Adjustment (VP - 7).
✓	✓	22. Ensure Lamp drive voltage is 8.5V-10.5V.
✓	✓	23. Check Cuvette Carrier Centering (VP - 3) and Light Beam Alignment (VP - 8).
	✓	24. Clean printer, replace ribbon, and verify printer operation.
	✓	25. Perform Calcium/AST Random Run (VP - 51).
✓	✓	26. Analyze control material, and verify results against customer-established ranges.