

Preventive Maintenance Chart

Month / Year: _____

Daily					Weekly							Monthly								
Clean Cycle and Wiping					Nozzle Performance							Clean Reagent Nozzles and Instrument								
Day	AM	PM	Night	*Daily Control Slides	Week	Reagent	Spray Pattern (✓ if okay)	**Expected Spray Volume	Measured Spray Volume	New Spray Volume (if nozzle was cleaned)	Drain Line Flush (see back page weekly step 4)	Initial	Reagent	Previous Months Ending Volume	Volume After Monthly Cleaning	Disinfect DI Water Bottle (✓ when cleaned)	Initial			
1					1	A		7.75-11.5 mL	mL	mL			A			Not Applicable				
2						B		7.75-11.5 mL	mL	mL										
3						C		7.75-11.5 mL	mL	mL										
4						D Front		7.75-11.5 mL	mL	mL										
5						D Back		7.75-11.5 mL	mL	mL										
6						E		7.75-11.5 mL	mL	mL										
7					2	A		7.75-11.5 mL	mL	mL			C			Not Applicable				
8						B		7.75-11.5 mL	mL	mL										
9						C		7.75-11.5 mL	mL	mL										
10						D Front		7.75-11.5 mL	mL	mL										
11						D Back		7.75-11.5 mL	mL	mL										
12						E		7.75-11.5 mL	mL	mL										
13					3	A		7.75-11.5 mL	mL	mL			D Front							
14						B		7.75-11.5 mL	mL	mL										
15						C		7.75-11.5 mL	mL	mL										
16						D Front		7.75-11.5 mL	mL	mL										
17						D Back		7.75-11.5 mL	mL	mL										
18						E		7.75-11.5 mL	mL	mL										
19					4	A		7.75-11.5 mL	mL	mL			D Back			Not Applicable				
20						B		7.75-11.5 mL	mL	mL										
21						C		7.75-11.5 mL	mL	mL										
22						D Front		7.75-11.5 mL	mL	mL										
23						D Back		7.75-11.5 mL	mL	mL										
24						E		7.75-11.5 mL	mL	mL										
25					<p>Preventative Maintenance Chart procedures are located on reverse side.</p> <p>Instructions for the Spray Pattern Test, Spray Volume Test, and cleaning the nozzles are contained in the User's Manual.</p> <p>The frequency set forth on this chart for daily, weekly, and monthly maintenance is considered maximum. Field experience suggests the more the Aerospray Slide Stainer is used the less frequently it requires preventive maintenance. Do preventive maintenance at the level necessary to keep nozzle performance within specification and slides staining correctly.</p> <p>Warning: Always wear eye and hand protection when performing preventive maintenance on the Aerospray Slide Stainer.</p> <p>This Preventive Maintenance Chart may be reproduced in its entirety by Aerospray users.</p> <p>*optional</p> <p>**Volume relationships between nozzles are as important as the actual volumes collected. Investigation should center on whether the nozzles are delivering close to the same volumes.</p>															
26					<p style="text-align: center;">Annually or as needed</p> <p style="text-align: center;">Check internal and exterior tubing and fittings</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Date</td> <td style="width: 60%;"></td> <td style="width: 20%;">Initial</td> <td style="width: 10%;"></td> </tr> </table> <p style="text-align: center;">Supervisor Approval</p>												Date		Initial	
Date		Initial																		
27																				
28																				
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31																				

Wescor Catalog SS-127

Preventive Maintenance Procedure	Reagent Lot Record					Corrective Action Log		
<p>DAILY: At end of each shift or if instrument will be idle for more than four hours</p> <ol style="list-style-type: none"> Run a CLEAN cycle. Leave instrument in CLEAN TO REPRIME mode. Use a spray bottle filled with methanol and spray the front of each nozzle and clean each nozzle orifice with nozzle brush. Spray the stainer bowl and exterior case using methanol. Wipe clean with a paper towel. If using Potassium Permanganate, fill a #13 rubber sleeve stopper with SS-029C Nozzle Cleaning Solution and slip it over the B line nozzle when the instrument is not in use Initial completion of daily procedure on preventive maintenance (PM) chart. When you are ready to use the instrument again, press CLEAN to reprime reagent lines (remove rubber sleeve stopper from B nozzle if present). In addition, you may want to run a SPRAY PATTERN test to verify nozzle performance prior to staining. Should any pattern appear abnormal repeat step 2 to clean nozzle orifice. <p>WEEKLY:</p> <ol style="list-style-type: none"> Perform SPRAY PATTERN and SPRAY VOLUME tests as described in User's manual. Record volume collected from each nozzle on PM chart. If volume trends lower or spray pattern is abnormal, disassemble and clean affected nozzle(s) (refer to User's Manual). Do not mix or interchange nozzles or nozzle parts. Always return nozzles to same location in stainer. Repeat SPRAY PATTERN and SPRAY VOLUME tests on cleaned nozzle(s). Wipe down nozzles, carousel tray, and carousel lid using methanol spray bottle and/or SS-029C Nozzle Cleaning Solution with a paper towel. Slowly pour 200-300 mL of water into instrument drain to prevent build up of paper fibers, precipitates, etc. Verify drain is flowing properly and not allowing fluid to back up in bowl or flow out of air vent on case back. Initial completion of weekly PM. <p>MONTHLY:</p> <ol style="list-style-type: none"> Disassemble and clean all nozzles as described in User's Manual. Do not mix or interchange nozzles or nozzle parts. COMPLETE STEP 2 ONLY IF USING SS-061BP or SS-161BP (POTASSIUM PERMANGANATE) REAGENT. Remove Pick-up Tube from Reagent B bottle. Then: <ol style="list-style-type: none"> Flush 500mL DI Water through the line. Flush 100mL SS-029C through the line. Block flow at nozzle holder with a gloved finger for a few seconds during flushing process. Stop flushing just before 100mL is gone and allow to soak in line overnight. Flush SS-029C out of line with 500mL of DI Water. Reinstall Reagent B and flush 100mL through the line to remove SS-029C. Reinstall nozzles. <i>Always return nozzles to the same location in stainer.</i> Perform SPRAY PATTERN and SPRAY VOLUME tests. Record results from end of month SPRAY VOLUME test on preventive maintenance chart. <i>NOTE: As you enter a new month the Volume After Monthly Cleaning number becomes Previous Months Ending Volume number.</i> Disinfect reusable bottles with a 1/10 dilution of household bleach. Rinse thoroughly with deionized water. Initial completion of monthly PM. Supervisor check and initial. <p>ANNUALLY:</p> <ol style="list-style-type: none"> Check internal and exterior tubing and fittings for cracks, leaks, or any type of deterioration. Replace as needed. 	Day	Reagent A	Reagent B	Reagent C	Reagent D	Reagent E		
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
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31								
	Instructions for Reagent Lot Record Each time you replace a reagent bottle, record lot number from the new bottle in the box that corresponds to the reagent changed and current months numeric date.					Corrective Action Log Instructions The Corrective Action Log is optional. Document each problem occurrence with (1) the date, (2) a brief description of the nature of problem, and (3) any corrective action taken to resolve or correct problem.		