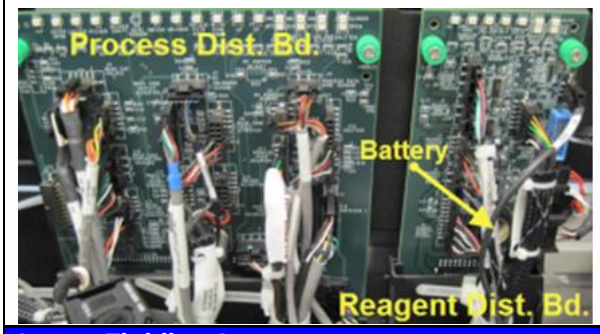
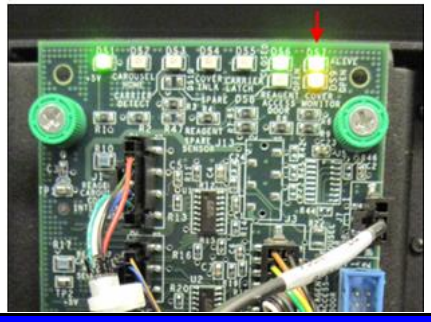
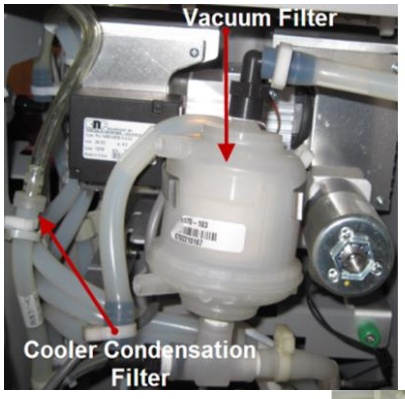
i1000SR Preventative Maintenance Procedure

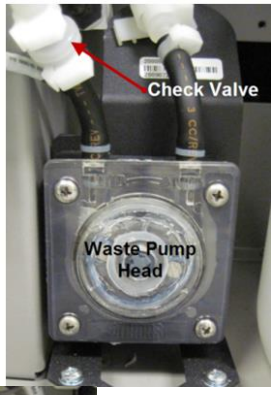
Customer Name		**Serial Number**	
Customer Number		**Ticket Number**	
City		**FSR Name**	
Telephone		**Date**	

Pre-site Investigative Procedures	**Completed**
Interview customer for any on-going issues and order parts as necessary. ***Note:*** *If the instrument is experiencing ongoing assay imprecision or accuracy issues, perform the ISA 117-019 (latest revision) Assay Troubleshooting i1000SR prior to completing the PM.*	☐
Ensure PM parts are available per the parts list at the end of this procedure.	☐
Verify Abbott Link connection status & review message history log for issues.	☐
On-site Investigative Procedures	**Completed**
Verify TSB status of instrument.	☐
Verify customer has performed a recent software back-up and current system back-up CD is available. Perform system backup, if needed (M&D 6004)	☐
Review Maintenance & Message History Logs and advise customer on performance of customer maintenance procedures and inventory of customer maintenance parts. The removal and replacement instructions for L/N parts are available on the System Control Center (SCC) in the online Operations Manual. ***Note:*** *Follow local Service Organization processes if it is necessary to charge customer for LN parts and/or labor.*	☐
SCC / Module Shutdown	**Completed**
Perform unload of reagent kits from reagent carousel. Store in refrigerated area. Check reagent cover LEDs on reagent distribution board to verify reagent cover battery condition. • Blinking ALIVE (upper) & STATUS (lower) LEDs indicate battery needs to be replaced • NOTE: Replacement batteries (type BR2032) are not stocked by Abbott & should be sourced locally Inspect doors, covers, & hinges for misalignment, squeaks, etc. Power off SCC & Processing Module *P-248 Startup and Shutdown / P-248 Startup and Shutdown*  	☐
Lower Fluidics Area	**Completed**
Inspect area for leaks & dry buffer build up. Clean as needed. Verify all tubing connections are tight & secure. Replace vacuum filter, as needed*(R&R K2.06 Vacuum Pump Filter)* / *(R&R K2.06 Vacuum Pump Filter Assembly)*	☐

Replace reagent cooler condensate inline filter, as needed.
Replace waste pump head, as needed. *(R&R K2.08 Waste Pump Head)* / *(R&R K2.08 Waste Pump Head)*
Replace in-line waste pump to pressure switch tubing check valve, as needed.
Inspect & secure cable connections on fluidics distribution board & sensors, as needed.
Perform MD 3181 Vacuum Diagnostics to check system health, if check fails:

- Check fittings on vacuum accumulator cap for cracks & kinked tubing.
- Flush out vacuum accumulator bottle if build-up is present. Ensure cap is tight

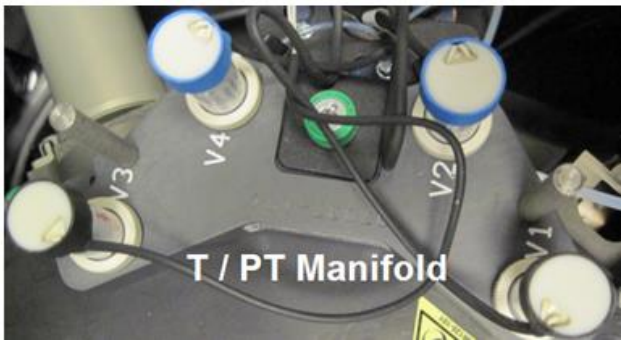


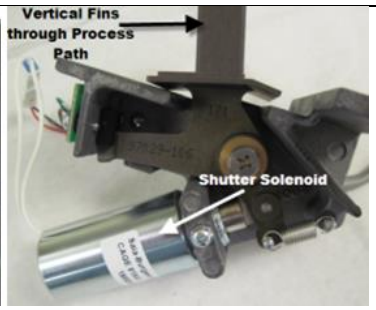


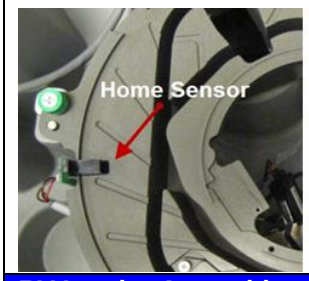
Bulk Solution / Waste Area	**Completed**

Inspect area for leaks & dried buffer buildup; clean as needed.
Clean area of RVs, dust, etc.
Verify tubing connections are tight.
Verify waste platform movement is not obstructed.
Inspect Pre-Trig / Trig level sensor fittings for cracks and/or kinked tubing.
Clean out Pre-Trigger / Trigger Tray

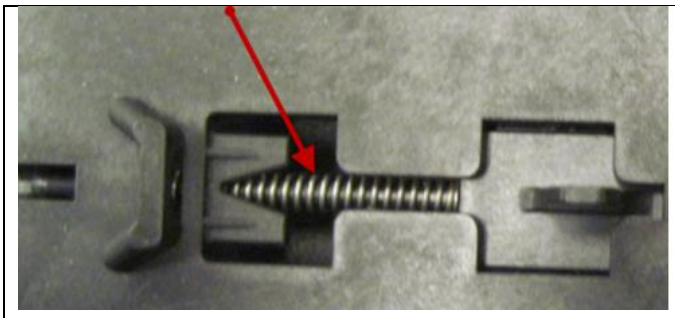
Lower Fluidics Area	Completed
Inspect external waste pump (if present) tubing & connections. Power off external waste pump and clean as needed. External Waste Pump 	☐

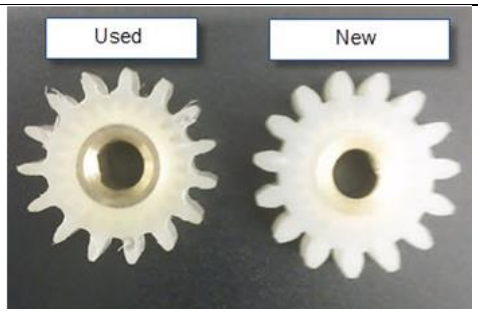
Process Path	Completed
Inspect & clean the Wash zone & PT / T manifold assemblies. • Perform MD2057 WZ Pressure Test and replace any WZ valves that fail. • Utilize ISA 117-007(latest revision) for cleaning tips & techniques • Verify date codes for Trigger / Pretrigger manifold valves and replace if > 2years • Write installation date on replacement Trigger / Pre-Trigger Valves for future 2 yr date verification Inspect & clean the Process Path cover. • Clean all buffer build-up & ensure lane rotators do not bind Remove, inspect, & clean (2) Vortexers • Verify Vortexer cups move freely & cable connections are secure Inspect for Trigger leakage around CMIA Reader & Shutter solenoid, clean as needed. • If optics must be removed for cleaning, ensure the maintenance cap is applied to the light pipe Verify shutter solenoid movement is not obstructed Clean & inspect process path disk, track, and home sensor • Inspect disc for grooves, etching, & wear • Common process path problem areas: wash zones, vortexers, diverters, & optics Verify RV Present switch arm moves freely. Clean & inspect process path LLS antenna; verify cable connections are secure. *(R&R E2.02 LLS Antenna Process Path)* / *(R&R E2.02 LLS Antenna Process Path)*  	☐

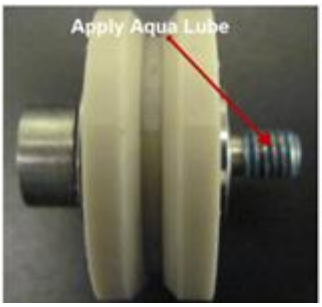


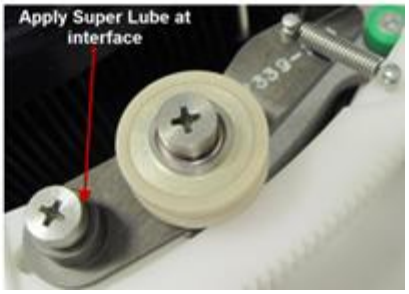


RV Loader Assembly	Completed
Remove RV Loader Inspect RV pickup screw for tightness. Verify RV pickup movement is not obstructed or contacts the RV Picked sensor arm when rotated. It is OK if the pick-up arm slightly touches the upper chute. Clean all RV Loader sensors – Hopper (proximity sensor), RV Picked, & RV Loader Home sensors.	☐
Check pressure monitor connections for leakage and tighten as needed. • Use absorbent material placed against fittings to check for wetness.	☐
Reagent Carousel Area	**Completed**
Replace v-wheels & shoulder screws, as needed. *(R&R D1.09 V-Wheel Lever and V-Wheels)* / *(R&R D1.09 V-Wheel Lever and V-Wheels)* Use a small amount of Green Grease / Aqua Lube on the shoulder screw threads Clean & lightly grease hole in V-Wheel Adjust Lever with Super Lube Grease Utilize Green Grease / Aqua Lube on new shoulder screw for lever Use small amount of Super Lube Grease at interface between shoulder screw & lever Clean dust & dried liquid from reagent cooling chamber. ***Note**: If the lab environment is dusty, refer to PM Addendum for additional cleaning instructions* Clean reagent carousel & inspect each position for proper slide / spring function. Clean & inspect reagent antenna board Inspect reagent carousel motor gear for wear Clean all sensors in reagent cooling chamber Inspect cooling chamber gaskets for tears & wear; replace as needed. Inspect & clean cooler condensation collection ring. Re-install reagent carousel. Before securing the motor latch verify the carousel rotates freely on the v-wheels.	☐

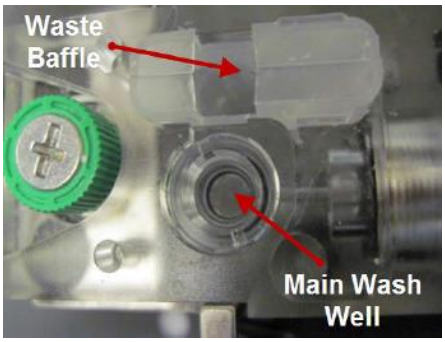


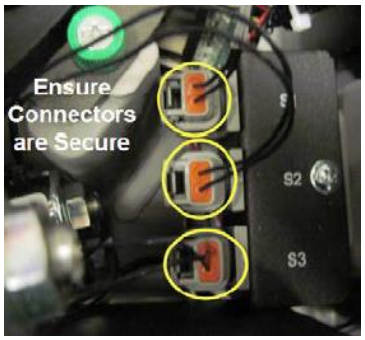




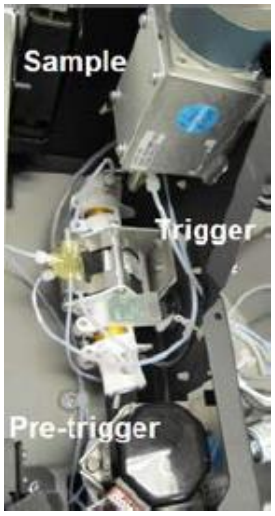
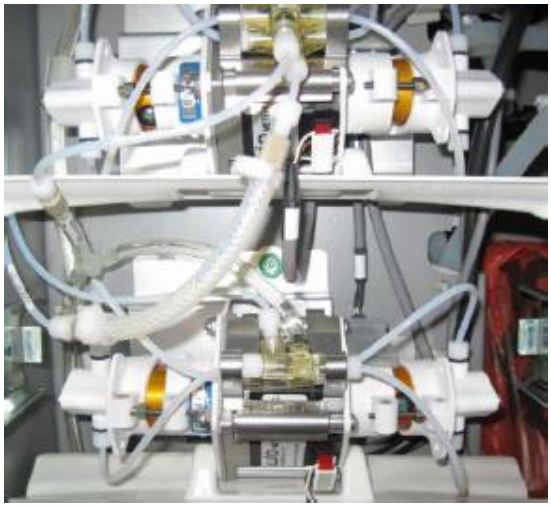


Wash Cup / Upper Waste Manifold	Completed
Wash Cup assembly • Remove & clean wash cup baffle & check for leakage. • Verify cable connections are secure. Upper Waste Manifold • Inspect thermistor tubing & connections.	☐





Pumps & Syringe	Completed

Pumps
• Upper Pumps / Syringe
  ○ Inspect Trigger / Pre-trigger pumps & Sample Syringe for leakage & check all connections.
• Lower Pumps (located behind Trigger / Pre-trigger sliding tray).
  ○ Inspect Buffer & Transfer pumps for leakage & check all connections.
 
 
 
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Verify Instrument Performance	**Completed**
Review PM checklist with customer. Ensure appropriate Quality Control meets specification and calibrate as necessary.	☐

Information for Level 2 Follow Up

Comments: _____
_____
_____
_____

Field Engineer Signature: _____

Customer Signature: _____

Field Service PM Parts List			
Part #	**Description**	**Qty**	**Criteria**
7-205087-04	PM Kit, i1000sr (RoHS)	1	Evaluate if kit is needed or if there will be cost savings by using individual parts.
7-100302-01	Reagent Cooler In-line Filter	1	Contained in PM kit
7-200055-01	Reagent Bottle Rotator Wheel	1	Contained in PM kit
7-200370-02	Vacuum Filter Assembly	1	Contained in PM kit
7-200378-01	Pump Head, Liquid Waste	1	Contained in PM kit
7-202660-01	Tubing, Waste Pump to Pressure Switch	1	Contained in PM kit
7-202411-04	Pinion Gear kit i1000sr (used with reagent carousel motor with replaceable gear 7-200635-00)	1	Replace if worn

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