

Agilent Preventive Maintenance Services

Agilent TapeStation Systems Preventive Maintenance Checklist

Agilent Preventive Maintenance provides factory recommended service for your analytical instruments to assure reliable operation and the accuracy of your results

Delivered by highly trained and certified service engineers using genuine Agilent parts and supplies, Agilent Preventive Maintenance provides what you need to reduce unplanned downtime and keep your systems operating at their peak performance.

This checklist is used as a guide for completing the preventive maintenance tasks. A signed copy of this checklist is provided for your records.

Introduction

Customer Information

- Customers should provide all necessary operating supplies upon request of the engineer.
- A customer representative should be available to the engineer while performing the preventive maintenance procedures. Customers are responsible for regular maintenance and are encouraged to observe the service representative.
- Any parts not included in the Parts Lists section of this document are not part of the recommended Preventive Maintenance service nor are they included in the price of this service.
- It is the responsibility of the customer to ensure that the TapeStation has not been exposed to any hazardous substances and should this, for any reason, not be the case, the instrument must be fully decontaminated before it is handed over to the engineer.
- In case the TapeStation software Security Module edition is installed provide the Service engineer with an user account and password on the system which has the Agilent Service Role.

Important Customer Web Links

- **Need to place a service call?** [Technical Support | Agilent](#)
- The **Agilent Community** is an excellent place to get answers, collaborate with others about applications and Agilent products, and find in-depth documents and videos relevant to Agilent Technologies. Visit <https://community.agilent.com/technical/automated-electrophoresis/>
- To Access the TapeStation Instrument Product Page, visit <https://www.agilent.com/en/product/automated-electrophoresis/tapestation-systems>

Service Engineer's Responsibilities

- Contact the customer and ensure that all necessary supplies are available before the preventive maintenance visit.
- Complete empty fields with the relevant information.
- Complete the relevant checkboxes in the checklist using either a "X" or tick mark "✓".
- Check "**Service not applicable**" check boxes to indicate services/tasks not delivered, as appropriate.
- Complete the Preventive Maintenance services in the most logical order relevant to the individual system service in the order of the tasks listed.
- Complete the **Service Review** section together with the customer.
- Complete the fields for page numbers at the foot of each selected page.
- Add relevant page numbers to selected pages and complete the total number of pages field in the Service Verification section.
- Complete Signature Page and attach Signature Page to Service Order.

Instrument Maintenance

System Information

Instrument Model Number (G2991B or A, G2992A)	
Instrument Serial Number	
Instrument System Site and Location	
Laptop Provided By	☐ Agilent Technologies ☐ Customer
Laptop Manufacturer and Model and Serial Number	
Windows Operating system	
TapeStation Software Version	
TapeStation Software edition	☐ Security Module
Software update recommended	☐ Yes ☐ No
Vortexer	☐ Provided and Installed ☐ Delete Option #820 was selected

- ☐ Verify operating system regional settings is set to English (US).
- ☐ Inspect the IKA Vortex for correct operation, assembly and wear.
- ☐ Verify environment is suitable according to specifications and site preparation documentation

Preparation

- ☐ Discuss any specific issues with the customer before starting.
- ☐ Review the instrument logbook for recorded problems and comments.
- ☐ Perform a general inspection of the system for cleanliness.
- ☐ Check for proper installation of parts, assemblies, sensors etc.

- ☐ Check system for required installation of components and implementation of Service Notes
- ☐ Check for required **TapeStation Software updates** and inform the user. Point to the software readme documentation and recommend update.
- ☐ Retrieve instrument log files before any activity through the TapeStation Software > File > "export log files". Move and save this data in a folder under C:\Users\admin\Documents\Agilent\TapeStation Data\Service for future reference. Create this folder if required. Adopt username "admin" if required.

Major Preventive Maintenance Procedures

In case the **Security Module** is installed, ensure that the Agilent Service Role the Agilent Service engineer requires is available before starting the preventive maintenance service.

Complete the following items using instructions provided in trainings.

- ☐ Before the preventive maintenance activities execute the following tests and their dependent tests from the Controller Software /System Diagnostics/ Run tests/ System Verification:
 - Robotics (all)
 - Electrophoresis (all)
 - Diagnostic counters (in the Setup)

Tests requiring a TSTT: costumer's TSTT should be use. In case of missing or expired TSTT, the FSE can use their own.

- ☐ Close the System Diagnostics and create log files through the TapeStation Software > File > "export log files". Move and save this data in a folder under C:\Users\admin\Documents\Agilent\TapeStation Data\Service for future reference.
- ☐ Remove electrode block with the TapeStation turned off and discard it.
- ☐ Visually inspect instrument in absence of the electrode block. Remove lost material such as pipette tips, caps and vials in the area of electronics and moving parts. Remove material through the front door.
- ☐ Apply maintenance procedures on following items:
 - Clean nest rips and metal slide guide
 - Clean sample tube holder and tip rack recess
 - Clean robotics teach-features at nest and under gantry
 - Review camera lens and LED filter for particles, optionally brush the dust away
 - Grease inner nest cover sliding area
 - Review and remove dust and particles on dedicated places of linear guides
 - Clean X and Y encoder stripes
 - Ensure appropriate fit of all accessories.

- ☐ Verify manually that the pump nozzle and the domes on the lower side of the lid are not loose.

- ☐ Insert new electrode block. Install gantry and nest covers, close lid.
- ☐ Review the movement of the lower nest cover to be smooth and without delay once the gantry is moved forward (manual test).
- ☐ A regular instrument initialization did happen, successfully. Required before proceeding.
- ☐ Execute Pierce Needle exchange through TapeStation Controller software.
- ☐ Execute the "TapeNest Positional Calibration" from within the FSE Calibration Test suite.
- ☐ Execute the "Sniffer Sensor Calibration" from within the FSE Calibration Test suite.
- ☐ Execute all System Verification Diagnostics tests to record status of the instrument post PM.
- ☐ Create log files through the TapeStation Software > File > "export log files". Move and save this data in a folder under C:\Users\admin\Documents\Agilent\TapeStation Data\Service
- ☐ Review exported data and confirm pierce needle position according to service documentation such as the I&F scope of work.
- ☐ Verify pierce counter and maintenance counter are set to zero (diagnostic counters) and check the Needle change History test and the Electrophoresis Cartridge history for correct new entries

Service Review

- ☐ Attach available reports/printouts of all tests to this documentation.
- ☐ Record the Preventive Maintenance service activity in the customer's records/logbook.
- ☐ Record the PM event in the Smart Alerts logbook, if applicable.
- ☐ Update/reset instrument maintenance counters as appropriate.
- ☐ Affix the PM sticker to the system or instrument logbook based on the customer's request.
- ☐ Complete the Service Engineer Comments section if there are additional comments.
- ☐ Review this service, parts replaced, and test results obtained with the customer.
- ☐ If the instrument firmware was updated, record the details of the change in the Service Engineer's Comments box. Systems in a compliant environment may need additional documentation.
- ☐ In case the **Security Module** is installed, the System Verification needs to yield a "PASS" in every single test. Please verify and export the test for reference.
- ☐ Complete Signature Page and attach Signature Page to Service Order.

Test Results

Test Description	Expected Test Result	Actual Test Result
System test suite	Pass	
Needle/Pump teach images inspection	As per training	

Consumed PM Parts

Part Description	Part Number	Product or Model# where used	Quantity consumed or "N/A"
TapeStation Test Tape	5067-5601	G2991A, G2991B, G2992A	
Probes Block Assay	G2992-60280	G2991B, G2992A	
Probes Block Assay	G2992-67080	G2991A	
Loading Tips; box with 112	5067-5598	G2991A, G2991B, G2992A	
Needle Cartridge	5067-5783	G2991A, G2991B, G2992A	

Signature Page

Service Engineer Comments (optional)

If there are any specific points you wish to note as part of performing the service review or other items of interest for the customer, please write in this box.

Service Verification

Service Request Number:

Date of Service Completion:

Service Engineer Name:

Customer Name:

Service Engineer Signature:



Total number of pages in this document: