6100 Series Single Quadrupole LC/MS –
Preventive Maintenance Checklist
Interim

Agilent Technologies

Agilent Preventive Maintenance provides factory recommended service for your analytical systems 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 everything you need to reduce unplanned downtime and keep your systems operating at their peak.

For more information about Agilent Technologies services please visit our web site using the following URL http://www.chem.agilent.com/en-us/products/services/pages/default.aspx

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.
- 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.
- If a system requires the use of additional or special procedures and/or parts for the instrument service, then these must be ordered separately and charged as a repair, which may incur additional costs.

Service Engineer's Responsibilities

Only complete/printout pages that relate to the system or module being serviced.
Complete empty fields with the relevant information
Complete the relevant checkboxes in the checklist using a "X" or tick mark "✓" in the checkbox.
Complete Not Applicable check boxes to indicate services not delivered, as needed
Complete the PM service in the order of the tasks listed.
Complete the Service Review section together with the customer

Additional Instruction Notes

Two PM's per year are recommended; the Standard PM service will be performed annually with an Interim PM performed 6 months after the Standard PM.

This checklist documents the Interim PM service for the Agilent 6100 Series Single Quad LC/MS instruments.

6100 Series Single Quadrupole LC/MS –
Preventive Maintenance Checklist
Interim

System Information

Instrument System Name/I.D:	Instrument Location:
Record the list of system component product numbers below.	**List the serial numbers of the components present in the system below.**
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

Guidance:

- ❑ Check box if instrument configuration report is attached instead of completing the table above.

Preparation

- ❑ Discuss any specific issues with the customer prior to starting.
- ❑ Review the instrument logbook.
- ❑ Save instrument control settings before starting the procedure.
- ❑ Perform general inspection of system for cleanliness
- ❑ Check for proper installation of safety-related parts, assemblies , sensors etc
- ❑ Check for required firmware updates and verify with customers if they would like it installed.
- ❑ Perform a dual polarity Autotune. If the Autotune does not complete successfully, do not proceed with the Preventative Maintenance before discussing the system with the customer.
- ❑ Record current vacuum readings:

  Rough Vacuum: _____

  High Vacuum: _____

6100 Series Single Quadrupole LC/MS –
Preventive Maintenance Checklist
Interim

General System Tasks

- ❑ **Section NOT Applicable**

- ❑ Vent the instrument and turn the front power switch off
- ❑ Perform general system inspection:
  Inspect vacuum hoses, pump exhaust tubing and power cords for excessive wear
  Look for any obvious external damage or problems.
  Note any obvious external damager or problems in the Service Engineer Comments section
- ❑ Clean air intake on the front of the instrument
- ❑ Verify system line voltage meets instrument specifications:
  Measured voltage (VAC): _____

Foreline Pump Oil Replacement

- ❑ **Section NOT Applicable**

- ❑ Drain and replace foreline pump oil:
  6100A w/E1M18 – p/n 6050-0834 (Inland 45 Oil)
  6100B w/MS40+ – p/n 6040-1361 (SW60 Oil)
- ❑ E1M18 only: Tighten the four 6 mm bolts on the rough pump that hold the oil box to the pump body; this will help eliminate foreline pump oil leaks.

Restore Instrument

- ❑ Pump the system down.
- ❑ Record current vacuum readings:
  Rough Vacuum: _____
  High Vacuum: _____
- ❑ Verify that all temperature, pressures, and gas flows reach tune file set points.
- ❑ Check manually that there are tune peaks in positive and negative mode.
- ❑ Generate tune reports in positive and negative mode.

Guidance:

The purpose of generating tune reports after preventive maintenance is to verify that the system is functional in positive and negative modes. Autotune should NOT be performed at this time.

- ❑ An Autotune should be run by the customer after the system has been allowed to thermally equilibrate for at least 11 hours following a system vent. During this time, it is not unusual for the instrument to exhibit mass assignment shifts, poor peak shapes and/or poor resolution.

Guidance:

If the PM service is performed prior to a qualification service, then use the qualification procedure as a guide for final instrument set up and checkout.

6100 Series Single Quadrupole LC/MS –
Preventive Maintenance Checklist
Interim

Service Review

- ❑ Attach available reports/printouts of all tests to this documentation.
- ❑ Record the PM service activity in the customer's instrument records/logbook
- ❑ 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 Review Comments section below if there are additional comments
- ❑ Review the service and any test results with the customer.
- ❑ If the Instrument firmware was updated, record the details of the change in the Service Engineer's Comments box below or if necessary, in the customer's IQ records.

6100 Single Quad LC/MS Test Results Table:

Test Description	Expected Test Result	Actual Test Result
Manual Tune Peaks – Positive Ionization Mode	Peaks Present	
Manual Tune Peaks – Negative Ionization Mode	Peaks Present	

6100 Single Quad LC/MS Parts List Table:

❑ **Section NOT Applicable**

Part Description	Part Number	Product/Model # where used	Quantity Consumed
Inland 45 Oil	6040-0834	6100A – Edwards E1M18 equipped	
SW60 Oil	6040-1361	6100B – Varian MS40+ equipped	

Service Engineer Comments (optional):

If there are any specific points you wish to note as part of delivering the PM service including any follow-up activities, specific observations made or other items of interest for the customer, please write in this box.

Other Important Customer Web Links

How to get information on your product: Literature Library -
http://www.agilent.com/chem/library
Need to know more? - www.agilent.com/chem/education
Need technical support? - www.agilent.com/chem/techsupp
Need supplies? - www.agilent.com/chem/supplies

Service Completion

Service Request number..... Date service completed.....

Agilent Signature..... Customer Signature.....

Total no. of pages for this document: .....

