Thank you for purchasing an Agilent G5541A NGS Bravo Option A. This checklist is used by the installing engineer to ensure that the instrument and associated systems are correctly installed, upgraded and functioning as designed in your facility. This checklist will be completed at the end of the service and provided to you as a record of the installation.

Customer Information

- Customers should provide all necessary operating supplies upon request of the engineer.

Service Engineer’s Responsibilities

- Only complete/printout pages that relate to the system being installed.
- 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 Service Review section together with the customer

Additional Instruction Notes

- **IMPORTANT**: Save the packing materials and shipping container in case you are required to move or ship the device. Packing the Bravo Platform using other materials might damage the device and void your warranty.
- Ensure that you follow the detailed unpacking and installation instructions in the following guides:
  - Bravo Platform Unpacking Guide (part number G5523-90000)
    - Note: This guide is attached to the shipping container.
  - NGS Bravo Option A Installation Guide (part number G5541-90000 RevB)
  - Bravo Automated Liquid-Handling Platform Safety and Installation Guide (part number G5409-90007)
- If the PlateLoc Thermal Microplate Sealer option is included, ensure that you follow the detailed unpacking and installation instructions in the PlateLoc Thermal Microplate Sealer User Guide (part number G5402-90001).

The following figure and table show the installation configuration without the optional PlateLoc Sealer.
Figure. NGS Bravo Option A configuration (front view)

<table>
<thead>
<tr>
<th>Figure item</th>
<th>Component name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bravo Platform with gripper preinstalled</td>
</tr>
<tr>
<td>2</td>
<td>96LT Pipette Head, Disposable Tip</td>
</tr>
<tr>
<td>3</td>
<td>Bravo risers</td>
</tr>
<tr>
<td>4</td>
<td>Bravo Light Curtain and Shields</td>
</tr>
<tr>
<td>5</td>
<td>Robot-disable pendant</td>
</tr>
<tr>
<td>6</td>
<td>Computer and monitor</td>
</tr>
<tr>
<td>7</td>
<td>Inheco MTC Controller</td>
</tr>
<tr>
<td>8</td>
<td>Thermo Cube (not shown - typically installed underneath the table)</td>
</tr>
</tbody>
</table>
System Information

Guidance

☐ Check this box if an instrument configuration report is attached instead of completing the table.

<table>
<thead>
<tr>
<th>Instrument system name and ID</th>
<th>Instrument system site and location</th>
</tr>
</thead>
<tbody>
<tr>
<td>List system component product numbers</td>
<td>List the serial numbers of each component</td>
</tr>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>13.</td>
<td>13.</td>
</tr>
</tbody>
</table>
General Preparation

- Verify that the Site Preparation Checklist has been followed and fully completed.
- Measure the main outlet line voltage ______ VAC.
- Unpack/verify the condition and completeness of shipment. For discrepancies, use the table below.

<table>
<thead>
<tr>
<th>Product or part description</th>
<th>Observation</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**CAUTION** Ensure that the y-axis shipping stop remains installed on the Bravo head mount until after you install the risers to prevent potential equipment damage.

- Discuss any specific questions or issues with the customer prior to starting.
- Discuss any configuration options with the customer prior to starting
- Check for required service note applicability and firmware updates if connecting to instruments.
- Upgrades only – Ensure with customer that instrument control settings, data, methods, and so forth have been properly saved or archived prior to starting any installation procedures.

**Task 1 - Install and set up the computer**

See the **G5541A NGS Bravo Option A Installation Guide** (part number G5541-90000).

- Connect the computer, monitor, mouse, and keyboard.
- Turn on the computer.
- If possible, create a Windows Administrator account (with administrator privileges) for the customer instead of using the preset Agilent ADMIN account.
- Verify that the computer is running Microsoft Windows 7 or 10 64-bit operating system and has VWorks software version 13 installed.
- Ensure that you have the NGS application folder: XT_Illumina_1.5.
- Set up the VWorks software for the NGS protocols.
  - Create the VWorks NGS folder structure.
  - Update the labware definitions and liquid classes (3 registry files).
  - Set default error handling behavior.
Task 2 - Install the Bravo Platform

See the G5541A NGS Bravo Option A Installation Guide (part number G5541-90000).

- Install the 146-mm risers.
- If present, remove the y-axis shipping stop from the head mount.
- Connect the Bravo power cord and robot-disable pendant (emergency stop pendant).
- Connect the Ethernet cable.

Task 3 - Install the accessories and the pipette head

![Bravo deck configuration (top view)](image)

- Install the Thermal Station (cooling pad) at deck location 9. Connect and fill the Thermo Cube, and turn on the power.
- Install the two Peltier Thermal Stations (CPAC2) at deck locations 4 and 6. Do not install the plate inserts at this stage.
- Install the PCA boards in the Inheco MTC Controller for the Peltier Thermal Stations. Connect and turn on the power.
- Install the Orbital Shaking Station at deck location 5. Connect and turn on the power.
- Prepare the Magnetic Bead Accessory for installation at deck location 7. Do not install the accessory at this stage.
- Ensure pipette head is ready to install (tip box stripper pins are retracted), and install the head.
Task 4 - Verify VWorks device files and Bravo profiles

See the G5541A NGS Bravo Option A Installation Guide (part number G5541-90000).

- Turn on all the devices.
- In the VWorks software, check the device file for the NGS XT_Illumina_1.5 application: Bravo_round_magnet.dev.
- In Bravo Diagnostics, verify the Bravo-Mag and Shaker profile settings and initialize the profile.
- Verify the deck configuration in the profile and test the accessories.
- Set and verify the pipette head teachpoints for the profile:
  - Use single pipette tip to set teachpoint at location 2.
  - Remove single tip and mount full column of tips.
  - Using a feeler gauge set teachpoints at locations 1, 3, 8; at locations 4 and 6; at location 5 using a teaching plate; and at location 7.
  - Verify the teachpoint z-axis values. Mount full head of pipette tips. Verify location 7 teachpoint.
- Save the profile and remove the pipette tips from the head.
- Verify the gripper y-axis offset and test the pick-and-place operations.
- Close Bravo Diagnostics, and close the device file.
- Open the second device file, Bravo_round_magnet_wash.dev, and create new Bravo-2 Inserts Mag and Shaker profile:
  - Adjust the z-axis teachpoint at Bravo deck location 4 for the Red PCR Plate Insert.
  - Adjust the z-axis teachpoint at Bravo deck location 6 for the Deepwell Plate Insert.
- In the device file, relink the Bravo-2 Inserts Mag and Shaker profile and save the changes.

Task 5 - Install and test the safety equipment

See the Bravo Automated Liquid-Handling Platform Safety and Installation Guide (part number G5409-90007).

- Install the Light Curtain.
- Install the front top and bottom shields.
- Install the side and rear shields, if applicable.
- Ensure that all accessory cabling and tubing is routed off the deck at the rear or sides.
- Test the Light Curtain and the pendant to ensure that they function correctly.

Task 6 - Install the PlateLoc Sealer

See the PlateLoc Thermal Microplate Sealer User Guide (part number G5402-90001).

- Section NOT Applicable
- Connect the PlateLoc Sealer to the power source.
- Connect the PlateLoc Sealer to the air source.
Task 7 - Validate the setup

See the G5541A NGS Bravo Option A Installation Guide (part number G5541-90000).

- Remove the small block of foam packed inside the PlateLoc Sealer.
- In the VWorks software, compile the NGS application protocols to check for errors.
- Perform a simulated run of the 01 Cleanup_Shearing_v1.5 protocol (XT_Illumina_1.5 application).
- Perform a mock run of the 01 Cleanup_Shearing_v1.5 protocol.

Service Review

- Attach available reports/printouts to this documentation.
- Record the time/date of installation or upgrade completion in the customer’s records/logbook.
- Complete the Service Engineer Comments section below if there are additional comments.
- Review the installation/upgrade with the customer.
- Explain Agilent warranty for instruments.
- Explain how to use manuals, guides, and online help.
- Explain how to get self-help, FAQs from the web.
- Explain how to log an instrument service call, support services available.
- Advise customer of additional instrument training options.
- 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.

Service Engineer Comments (optional)

If there are any specific points you wish to note as part of performing the installation or other items of interest for the customer, please write in this box.
Other Important Customer Web Links

- For additional information about Agilent automation products, please visit http://www.agilent.com/en-us/products/automation-solutions
- Need to get information on your product?

Service Completion

Service request number ___________________ Date service completed ___________________

Agilent signature ________________ Customer signature ________________

Number of pages in this document ______

Document part number: G5541-90001