Agilent G5542BA AssayMAP Bravo Platform – Site Preparation Checklist

Thank you for purchasing an Agilent **G5542BA AssayMAP Bravo Platform**. To get you started and to assure a successful and timely installation, please refer to this specification or set of requirements.

Correct site preparation is the key first step in ensuring that your instruments and software systems operate reliably over an extended lifetime. This document is an **information guide AND checklist** prepared for you that outlines the supplies, consumables, space and utility requirements for your equipment.

Customer Responsibilities

Make sure your site meets the following specifications before the installation date. For details, see specific sections within this checklist, including:

- ❑ The necessary laboratory or bench space is available, and meets the specified requirements.
- ❑ The environmental conditions for the lab as well as laboratory gases and plumbing.
- ❑ The power requirements related to the product (e.g., number & location of electrical outlets).
- ❑ The required operating supplies necessary for the product and installation.
- ❑ Please consult Other Requirements section below for other product-specific information.
- ❑ For more details, please consult the Bravo Automated Liquid Handling Platform Safety and Installation Guide (part number G5409-90007).

If Agilent is delivering installation and familiarization services, users of the instrument should be present throughout these services; otherwise, they will miss important operational, maintenance and safety information.

Important Customer Information

1. If you have questions or problems in providing anything described as a Customer Responsibility above, please contact your local Agilent or partner support/service organization for assistance prior to delivery. In addition, Agilent and/or its partners reserve the right to reschedule the installation dependent upon the readiness of your laboratory.
2. Should your site not be ready for whatever reasons, please contact Agilent as soon as possible to re-arrange any services that have been purchased.
3. Other optional services such as additional training, operational qualification (OQ) and consultation for user-specific applications may also be provided at the time of installation when ordered with the system, but should be contracted separately.

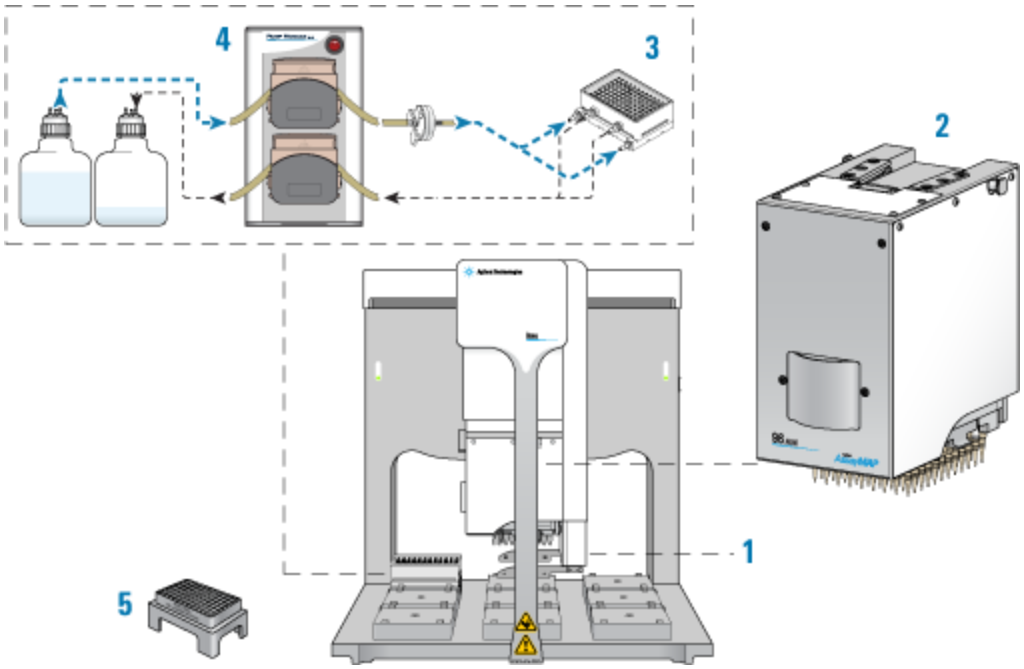
Hardware components

Basic configuration

In addition to the Bravo instrument, the basic configuration includes the following at a minimum:

1. Bravo gripper assembly
2. AssayMAP liquid-handling head (Bravo 96AM Head)
3. 96AM Wash Station
4. Pump Module and tubing
5. 96AM Cartridge & Tip Seating Station

AssayMAP Bravo Platform components in the basic configuration

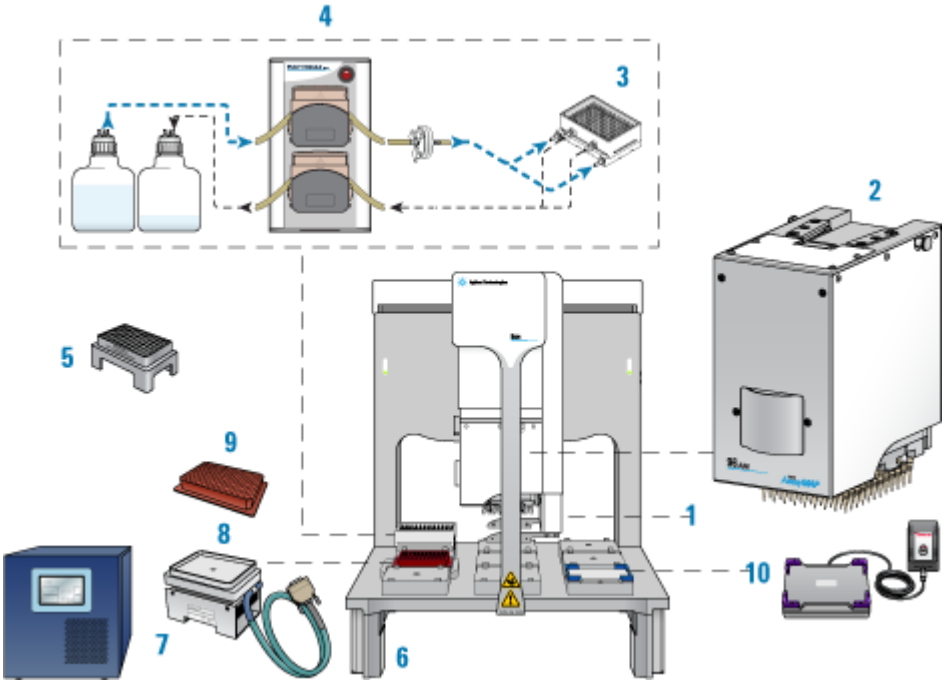


Enhanced configuration

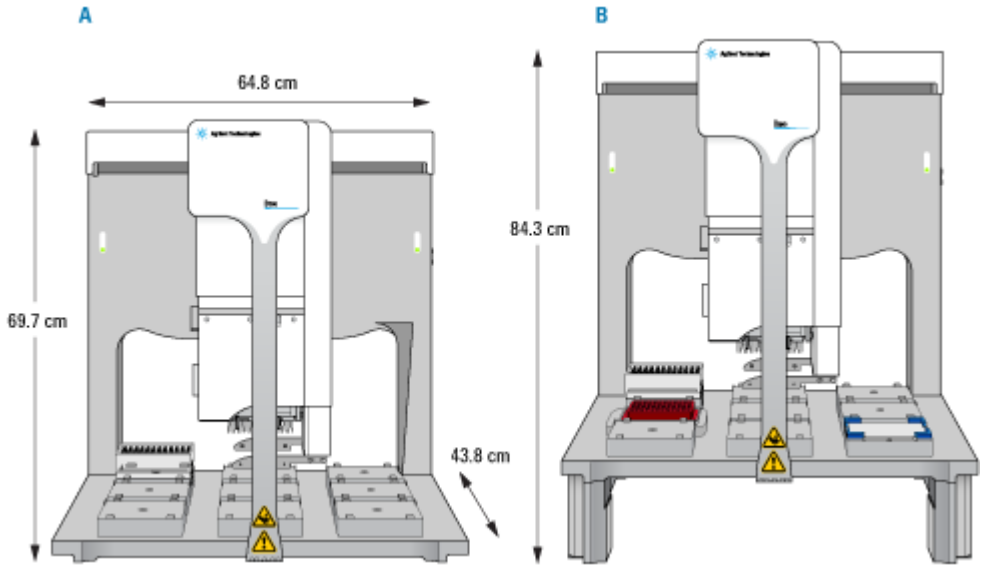
In addition to the previously listed components, the enhanced configuration includes:

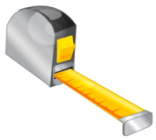
6. Deck risers
7. Peltier Thermal Station with STC controller
8. Custom plate nest
9. Red PCR Plate Insert
10. Orbital Shaking Station

AssayMAP Bravo Platform components in the enhanced configuration



Dimensions of (A)Basic configuration and (B)Enhanced configuration





Dimensions and Weight

Identify the laboratory bench space before your system arrives based on the table below.

Pay special attention to the **total height and total weight requirements for all system components you have ordered and avoid bench space with overhanging shelves**.

Special Notes

1. The table surface must be at least 86 cm (34 in) from the floor to restrict reach-over access above the Light Curtain and shields. Reaching over the Light Curtain and shields can expose operators to moving-parts hazards.
2. In addition to the dimensions of the AssayMAP Bravo Platform, you must plan space for the computer workstation.

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
Bravo instrument	52.1	114.9	69.7	27.4	43.8	17.2	64.8	25.5
Bravo 96AM Head	3.83	8.5	20.3	8.0	18.4	7.25	10.5	4.13
Pump Module 2.0 (G5498B#058)			25.4	10.0	23.5	9.25	14.6	5.75
Computer workstation with space for emergency-stop pendant	29.5 approximately	65 approximately	36.3	14.3	61.6	24.3	72.6	28.6
Enhanced configuration accessories								
Bravo instrument on Risers	-	-	84.3	33.2	-	-	-	-
Orbital Shaking Station with Control Unit (G5498B#033)	(Installs on the Bravo deck at location 9.)							
Peltier Thermal Station (CPAC Ultraflat Heater/Cooler (G5498B#035)	(Installs in the Bravo deck at location 4.)							
Single TEC Control (STC) for the Peltier Thermal Station*	3.3	7.3	17.7	7	22.4	8.8	14.7	5.8

* The STC controller must be placed within proximity of the Bravo deck to accommodate the reach of the cables that connect to the Peltier Thermal Station installed on the deck. The controller may be placed on a shelf or on the floor below the Bravo Platform.

Environmental Conditions

Operating your AssayMAP Bravo Platform within the recommended environmental conditions ensures optimum instrument performance and lifetime. The site's ambient temperature conditions must be stable for optimum performance.

Special Notes

1. Performance can be affected by sources of heat and cold, for example, direct sunlight, heating or cooling from air conditioning outlets, and drafts.
2. The AssayMAP Bravo Platform is intended to operate in a low-vibration environment. Excessive vibration may induce pipettor and robot errors.
3. The AssayMAP Bravo Platform is for indoor use only.

Temperature range °C (F)	Humidity range (%)	Heat dissipation (BTU)	Pollution degree	Installation category
Operating: 4 to 40 °C	10-90% RH, non-condensing	682.4 BTU/hour (200 W)	2	II
Storage: -10 to 60 °C	10-80%, non-condensing	Not applicable	2	II

Power Consumption

Special Notes

1. Ensure at least four electrical outlets are in proximity of the AssayMAP Bravo Platform.

Instrument Description	Line Voltage & Frequency (V, Hz)	Maximum Power Consumption (W)
AssayMAP Bravo Platform	100-240 Vac, 50/60 Hz	
Laptop Computer	100-240 Vac, 50/60 Hz	150 W
Pump Module 2.0 (G5498B#058)	100-240 Vac, 50/60 Hz, 1.5 A	200 W
Orbital Shaker (G5498B#033)		
Peltier Thermal Station with STC Controller (G5498B#035)	115 Vac 60 Hz and 240 Vac 50 Hz	

Required Operating Supplies by Customer

Special Notes

1. For information on Agilent consumables, accessories and laboratory operating supplies, please visit http://www.chem.agilent.com/en-US/Products/consumables/Pages/default.aspx

Item Description (including dimensions etc)	Vendor's Part Number (if applicable)	Recommended Quantity
10-L carboys One carboy to supply wash solution to the 96AM Wash Station and one to function as a waste container.	For a suggested vendor, contact your Agilent product specialist.	2
Labware for the AssayMAP applications Note: Labware requirements vary depending on experimental design. See the Protein Sample Prep Workbench section of the VWorks Knowledge Base for details on labware requirements for each application. www.agilent.com/chem/askb	varies	varies
AssayMAP Cartridges for your application	Agilent	varies
Wash buffer for the wash station	varies	varies
(Optional) AssayMAP Resin-Free Cartridges, rack of 96 Included in the Syringe Test Kit, the resin-free cartridges are also useful for performing mock runs of a protocol.	Agilent G5496-60009	1
(Optional) AssayMAP Syringe Test Kit	Agilent G5496-60050	1
(Optional) AssayMAP Syringe Replacement Kit Includes syringe replacement tools and 10 new replacement syringes for repairing the Bravo 96AM Head.	Agilent G5409-68002	1

Other Requirements

Laboratory Table Specifications

- ❑ The laboratory table must support the weight of the AssayMAP Bravo Platform without excessive shaking or movement. The table should be fixed in place, for example, castors that lock.
- ❑ The table must be level in the direction of the width and the depth of the platform. Using a traditional bubble level, the table should be leveled such that the bubble is centered between the two limit lines of the level
- ❑ The table surface must have a thickness relative to the material that will prevent warping when the AssayMAP Bravo Platform and computer are set upon the table.
- ❑ The table surface must be attached to the table frame.
- ❑ The table frame must have:
    - A leveling mechanism in the feet or castors.
    - Dimensions that enable support of the table surface without overhang.
    - Have castors that can be unlocked to enable moving the platform away from a wall to provide maintenance access to the rear.

Additional equipment requirements

The **AssayMAP Syringe Test Kit** (Agilent G5496-60050) is required for evaluating the performance of the syringes in the AssayMAP liquid-handling head (Bravo 96AM Head). The following equipment is also required for the AssayMAP Syringe Test.

Items required for AssayMAP Syringe Test*	Manufacturer and part number	Quantity required
Microplate Reader capable of measuring absorbance at 425 nm or 405 nm and generating a text (.txt) or Microsoft Excel (.xlxs) file is required for the Syringe Test analysis.	various	1
Centrifuge equipped with a microplate rotor and capable of spinning at 300g is required for the Syringe Test procedure.	Various	1

Computer Requirements

- ❑ HP Mobile Workstation (Agilent part number G5880-64009) or equivalent computer:
  Intel® Core™ i7-4600M (2.9 GHz, 4 MB cache, 2 cores), 15.6" display (1920x1080), Windows 7 (64-bit) SP1 pre-installed, 8GB RAM, Intel Dual Band Wireless-AC 7260 802.11ac, USB Ethernet Adapter USB300M
- ❑ For VWorks software computer requirements, see the VWorks software release notes or the VWorks Knowledge Base at www.agilent.com/chem/askb.

Safety Equipment and Precautions

WARNING Changing or modifying the safety equipment can prevent the safe operation of the workstation, invalidate its safety compliance, and lead to personal injury or property damage. Any customer who does not use the supplied safety equipment or who modifies the supplied safety equipment assumes full responsibility for providing an appropriate level of safety for its operators and for providing the applicable safety compliance marking and documentation.
All safety equipment supplied with the AssayMAP Bravo Platform will be installed for you. The Bravo Platform is connected to a robot-disable pendant (e-stop pendant). Pressing the red emergency-stop button on the pendant, which connects to the safety interlock circuit, will stop the motion of the device. The safety equipment can also include shields and a Light Curtain to prevent access to moving-parts hazards. Ensure that you understand the potential safety hazards and how to avoid them.

For details see:

- ❑ Automation Solutions Products General Safety Guide (part number G5500-90015)
- ❑ Bravo Automated Liquid Handling System Safety and Installation Guide (part number G5409-90007)

You can find these guides in the Automation Solutions Knowledge Base at:
http://www.agilent.com/chem/askb

Important Customer Web Links

- ❑ For additional information about our solutions, please visit our web site at http://www.chem.agilent.com/en-US/Pages/HomePage.aspx
- ❑ Need to get information on your product?
    - VWorks Knowledge Base - http://www.agilent.com/chem/askb
      (See the Protein Sample Prep Workbench topics.)
    - If the Protein Sample Prep Workbench is installed, go to the Literature Library in the locally installed software.
    - Agilent Library - http://www.agilent.com/chem/library
- ❑ Need to know more?
  Customer Education - www.agilent.com/chem/education
- ❑ Need technical support, FAQs? - www.agilent.com/chem/techsupp
- ❑ Need Support Services? - www.agilent.com/crosslab

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