

Agilent G5523A/G Bravo Platform – Site Preparation Checklist

Thank you for purchasing an Agilent G5523A/G **Bravo Automated Liquid Handling 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 for your site.

Customer Responsibilities

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

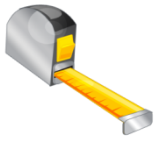
- The necessary laboratory or bench space is available, and meets the specified requirements.
- The environmental conditions for the lab, as well as laboratory gases and plumbing
- The power requirements related to the product (e.g., number & location of electrical outlets)
- The required operating supplies necessary for the product and installation
- Please consult **Other Requirements** section 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 Responsibilities 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.
4. See the Safety Equipment and Precautions section under **Other Requirements**.

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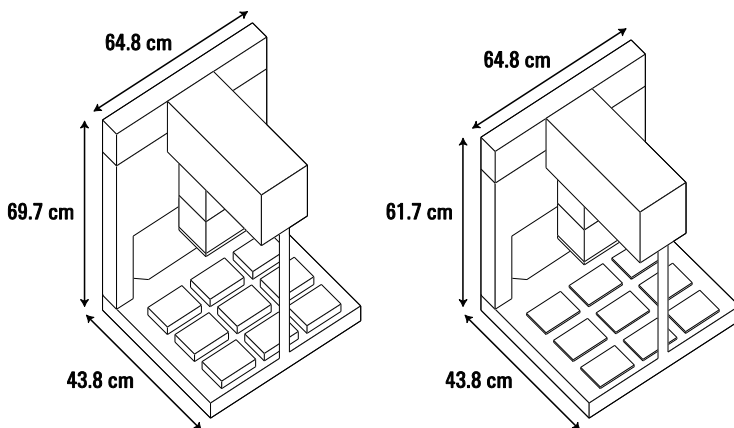


Dimensions and Weight

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**. Also pay special attention to the total weight of the modules you have ordered to ensure your laboratory bench can support this weight.

Figure. Bravo Platform standard (left) and SRT (right) dimensions



Special Notes

1. In addition to the dimensions of the Bravo Platform, you should plan space for the Pump Module, if applicable, and the computer workstation.
2. See additional laboratory bench specifications under Other Requirements.

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
G5523A/G Bravo (Standard Platform)	52.1 Kg	114.9 lbs	69.7 cm	27.4 in	43.8 cm	17.2 in	64.8 cm	25.5 in
(Optional) G5498B#022 Light Curtain								
(Optional) G5498B#055 Risers (146 mm)	-	-	84.3 cm	33.1 in	-	-	-	-
G5523A/G Bravo (SRT Platform)	51.5 kg	113.5 lbs	61.7 cm	24.3 in	43.8 cm	17.2 in	64.8 cm	25.5 in
Pipette Head (Fits within platform dimensions. Type can vary depending on the order.)								
G5498B#043 384ST Disposable Tip Head	4.05 Kg	9.0 lbs	19.7 cm	7.75 in	17.1 cm	6.75 in	12.7 cm	5.00 in
G5498B#041 96ST Disposable Tip Head	4.05 Kg	9.0 lbs	19.7 cm	7.75 in	17.1 cm	6.75 in	12.7 cm	5.00 in

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G5498B#042 96LT Disposable Tip Head	4.05 Kg	9.0 lbs	19.7 cm	7.75 in	17.1 cm	6.75 in	12.7 cm	5.00 in
G5498B#045 384-Barrel Fixed Tip	4.25 Kg	9.4 lbs	24.4 cm	9.60 in	17.1 cm	6.75 in	12.7 cm	5.00 in
G5498B#044 96F50 96-Barrel Fixed Tip	4.25 Kg	9.4 lbs	24.4 cm	9.60 in	17.1 cm	6.75 in	12.7 cm	5.00 in
If applicable, plan space for the following:								
G5498B#058 Pump Module 2.0	11 kg approx	25 lbs approx	25.4 cm	10.0 in	23.5 cm	9.25 in	14.6 cm	5.75 in
G5498B#001 Pump Tubing	–	–	–	–	–	–	–	–
Computer workstation with space for emergency-stop pendant	2.9 Kg approx	6 lbs approx	36.3 cm	14.3 in	61.6 cm	24.3 in	72.6 cm	28.6 in



Environmental Conditions

Operating your instrument within the recommended temperature ranges insures optimum instrument performance and lifetime.

Special Notes

1. Performance can be affected by sources of heat & cold e.g. direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations. The site's ambient temperature conditions must be stable for optimum performance.
2. The Bravo Platform is intended to operate in a low-vibration environment. Excessive vibration may induce pipettor and robot errors.
3. The 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

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Power Consumption
Special Notes

1. If a computer system and accessories are supplied with your instrument, be sure to account for those electrical outlets.

Instrument Description	Line Voltage & Frequency (V, Hz)	Maximum Power Consumption (VA)	Maximum Power Consumption (W)	Fuse (AC entry)
G5523A/G Bravo Platform	100-240 & 50/60			250 V, 10 A, 5 mm x 20 mm, fast acting


Required Operating Supplies by Customer
Special Notes

1. For information on other Agilent consumables, accessories and laboratory operating supplies, please visit <http://www.chem.agilent.com/en-US/Products/consumables/Pages/default.aspx>
- 2.

Item Description (including dimensions etc)	Vendor's Part Number (if applicable)	Recommended Quantity
Pipette tips, disposable http://www.agilent.com/en-us/products/automation-solutions/automated-liquid-handling/disposable-pipette-tips	Agilent	varies
Labware Note: Labware requirements vary depending on experimental design.	varies	varies

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Other Requirements

Laboratory Bench or Table Specifications

- ❑ The laboratory bench (table) must:
 - Have enough space to accommodate the Bravo Platform, computer, monitor, pendant, and accessories.
 - Support the weight of the Bravo Platform and other components without excessive shaking or movement.
 - Be fixed in place, for example, casters that lock.
 - Have proximity to a power outlet, and allow rear access to enable quickly disconnecting the power to the Bravo Platform if the need arises.
 - Be placed to allow access to the rear of the Bravo Platform for maintenance.
- ❑ 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 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 casters.
 - Dimensions that enable support of the table surface without overhang.

Computer Requirements

The computer available from Agilent Technologies (part number G5880 64009) has the following specifications:

- ❑ HP Mobile Workstation: 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
- ❑ VWorks software computer requirements: See the VWorks software release notes or the [VWorks Knowledge Base at www.agilent.com/chem/askb](http://www.agilent.com/chem/askb).

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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 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 may 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 Agilent automation products, please visit our web site at <http://www.agilent.com/en-us/products/automation-solutions>
- Need to get information on your product?
 - VWorks Knowledge Base - <http://www.agilent.com/chem/askb>
 - Agilent Bravo product page - <http://www.agilent.com/en-us/products/automation-solutions/automated-liquid-handling/bravo-automated-liquid-handling-platform>
 - Agilent Library - <http://www.agilent.com/en-us/library/literature>
- Need to know more?
Customer Education – <http://www.chem.agilent.com/en-US/Training-Events/Pages/default.aspx>
- Need technical support, FAQs? – <http://www.chem.agilent.com/en-US/Technical-Support/Pages/default.aspx>
- Need Support Services? - www.agilent.com/crosslab

Document part number: G5523-90002