

Agilent 4200/4150 TapeStation System

Site Preparation Checklist

Thank you for purchasing an Agilent instrument. 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.

Introduction

Customer Responsibilities

Ensure that your site meets the following requirements before the installation date. For details, see specific sections within this checklist, including:

- One set of ScreenTape assay consumables including ScreenTape devices, ladder and reagents must be purchased by the customer and must be available. This needs to be confirmed before installation date as the installation and familiarization service delivery includes a demonstration of an actual analysis with ladder. Any Agilent ScreenTape assay can be used for the installation and familiarization service delivery. Please look up available kits in the section Required Operating Supplies by customer. For installation and familiarization with the D1000 ScreenTape assay the following items should be ordered and present (kit type is an example only).
 - D1000 ScreenTape devices:
5067-5582 (includes 7 devices of which 1 will be used partially)
 - D1000 Reagents:
5067-5583 (includes ladder & sample buffer, will be used only partially)

- Customer must either
 - have purchased a laptop p/n G2999AA which comes with preinstalled TapeStation software. This is typically part of the 4200 TapeStation in system bundles (G2991AA and G2991BA).
 - or provide a 3rd party laptop with a suitable account with local administrative rights for installation. For laptop requirements and up-front check for suitability see the latest readme.pdf of the current software under "Checking System Suitability". Download the readme.pdf and software setup for this task here:
<https://www.agilent.com/en/promotions/tapestation-sw>
- For an installation of 3rd party laptops customers have to purchase 1h extra service time for setup, software installation and checking the system suitability. Provide an account with administrative rights for this.

Note: I&F service renders unfinished and must stop if no suitable laptop is available or if unpredicted hinderance appears.

- The necessary laboratory or bench space is available. For details, see Dimensions and Weight section.
- The environmental conditions for the laboratory are met. For details, see Environmental conditions section.
- The power requirements related to the product (e.g. number and location of electrical outlets) are fulfilled.
- See: Required Operating Supplies by Customer for Installation
- 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.

Customer Information

- 1 If you have questions or problems in providing anything described as a Customer Responsibility, please contact your local Agilent or partner support service organization for assistance before the scheduled installation. In addition, Agilent and/or its partners reserve the right to reschedule the installation dependent upon the readiness of your site.
- 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 extra training, compliance services and consultation for user-specific applications may also be provided at the time of installation. Please discuss with your Agilent Sales representative before the installation is scheduled.
- 4 Please note for ScreenTape devices and ScreenTape Reagents the following
For Research Use Only. Not for use in diagnostic procedures.

Important Customer Web Links

- Videos about specific preparation requirements for your instrument can be found by searching the *Agilent YouTube* channel at <https://www.youtube.com/user/agilent>
- To access *Agilent University*, visit <http://www.agilent.com/crosslab/university/> to learn about training options, which include online, classroom and on-site delivery. A training specialist can work directly with you to help determine your best options.
- A useful *Agilent Resource Center* web page is available, which includes short videos on maintenance, quick lists of consumables for new instruments, and other valuable information. Check out the Resource Page here: <https://www.agilent.com/en-us/agilentresources>
- Need technical support, FAQs, supplies? – visit our *Support Home page* at <http://www.agilent.com/search/support>
- Get answers. Share insights. Build connections:
Join the *Agilent Community* at <https://community.agilent.com/welcome>

Site Preparation

Dimensions and Weight

Identify the laboratory bench space before your instrument arrives based on the following table.

Pay special attention to the total height and weight requirements for all system components you have ordered and avoid bench space with overhanging shelves. The work bench should be stable and vibration free.

Special notes

Dimensions and Weight

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
4150 TapeStation instrument (G2992A)	17.8	39.2	41.5	16.3	51.0	20.0	25.4	9.6
4200 TapeStation instrument (G2991A)	25.5	56.3	44.5	17.5	51.0	20.0	43.5	17.1
4200 TapeStation instrument (G2992B)	24.8	56.3	44.5	17.5	51.0	20.0	43.5	17.1
PC/ Laptop (typical values)	--	--	--	--	26.0	10.2	40.0	15.7

Please note:

- 1 Additional space of approximately 25 cm (9.8 inch) is required on top of the listed height in order to allow opening of the 4200 or 4150 TapeStation lid. Please avoid locations with low overhanging shelves.
- 2 An optional Agilent Laptop PC with preinstalled TapeStation software is available under p/n G2999AA. As of February 2021 it is HP ProBook 650 G5 (Intel® Core™ i5-8365U [vPro™ with Intel® UHD Graphics 620; 1.6 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores], 8GB RAM, Win10Pro 64bit). PC/ Laptop itself and dimensions are subject to changes.
- 3 Make sure sufficient storage space (at operating temperature and humidity) for instrument box is available prior to installation.
- 4 Keep the packaging material for later use for storage or shipments (optionally).
- 5 The 4150 TapeStation instrument is delivered in a cardboard box (74x58x42 cm; 29x23x17 inch).
- 6 The 4200 TapeStation instrument is delivered in a cardboard box (80x65x78 cm; 31x26x31 inch).

Environmental Conditions

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

Special notes

- 1 Performance can be affected by sources of heat and cold, e.g., direct sunlight, heating/cooling from air conditioning outlets, drafts, and/or vibrations.
- 2 The laboratory's ambient temperature conditions must be stable in order to achieve specified performance.
- 3 Do not operate the 4150 or 4200 TapeStation instrument outside the temperature range of 10-40°C (50 – 104 °F). Please note the ScreenTape assays do have individual operating temperature ranges which deviate from the instruments range and are, therefore, typically the limiting parameter.
- 4 Allow approximately 75 mm (3 inches) of clear space around the instrument for air circulation and electrical connections.
- 5 Do not operate the 4150 or 4200 TapeStation instrument outside the range of 15-80% relative humidity. Keep the conditions non-condensing.
- 6 Upon delivery, store in a temperature stable, dry environment. Do not remove the instrument from its original shipping box immediately but allow it to warm up to the ambient conditions within operating temperature and humidity range.
- 7 High levels of ambient light can affect the instruments performance. Position the 4150 or 4200 TapeStation instrument facing away from direct light sources.
- 8 To avoid damaging the instrument and to achieve accurate results do not place the 4150 or 4200 TapeStation instrument on a vibrating surface or near vibrating objects.
- 9 Ensure that nothing rests on the cables of the 4150 or 4200 TapeStation instrument and that they are not located where they can be stepped on or tripped over.

Instrument Description	Operating Temperature Range °C (F)	Operating Humidity Range %
4150 TapeStation instrument (G2992A)	10 – 40 (50 – 104)	15 – 80 %, non-condensing
4200 TapeStation instrument (G2991A)	10 – 40 (50 – 104)	15 – 80 %, non-condensing
4200 TapeStation instrument (G2991B)	10 – 40 (50 – 104)	15 – 80 %, non-condensing
ScreenTape Assay	Specific Operating Temperature Range °C (F)	
D1000 ScreenTape	12 – 37 (54 – 99)	
High Sensitivity D1000 ScreenTape	17 – 37 (63 – 99)	
Genomic DNA ScreenTape	15 – 30 (59 – 86)	
RNA ScreenTape	14 – 30 (57 – 86)	
High Sensitivity RNA ScreenTape	14 – 30 (57 – 86)	
D5000 ScreenTape	15 – 30 (59 – 86)	
High Sensitivity D5000 ScreenTape	15 – 30 (59 – 86)	
Cell-free DNA ScreenTape	16 – 30 (61 – 86)	

Please note

The assay specific temperature range is measured at the ScreenTape nest inside the instrument. Choose the location of the instrument and the ambient conditions to fit to the working range of the assay else the start of runs will be disallowed.

Power Consumption

Special notes

- 1 A computer system is required to operate your instrument. Account for respective electrical outlets. Two plug sockets must be available near the allocated bench space.
 - Instrument
 - PC/ Laptop

Instrument Description	Voltage, V	Line Frequency, Hz	Maximum Power Consumption
4150 TapeStation instrument (G2992A)	100-240 \pm 10%, AC	50-60 \pm 5%	50 VA
4200 TapeStation instrument (G2991A)	100-240 \pm 10%, AC	50-60 \pm 5%	50 VA / 50W
4200 TapeStation instrument (G2991B)	100-240 \pm 10%, AC	50-60 \pm 5%	50 VA / 50W
PC/Laptop with power adaptor (e.g. p/n G2999AA)	100-240 \pm 10%, AC	50-60 \pm 5%	Typically, 65-90 W
Vortex mixer IKA MS3 with power adaptor	100-240, AC	50-60	20 W

- 2 A vortex mixer IKA MS3 basic with 96-well sample plate adapter is typically used with the TapeStation System for sample preparation. It is bundled to the system by default but can be opted out. Please refer to the manufacturer's documentation for latest technical details.

Please note:

PC/ Laptop power consumption through HP Smart AC Adapter is subject to changes as is the PC/laptop p/n G2999AA itself.

Required Operating Supplies by Customer for Installation

Special notes

- 1 Visit www.agilent.com/genomics/tapestation for a complete overview about available TapeStation DNA and RNA ScreenTape & Reagents for your instrument.
- 2 Necessary laboratory equipment and consumables

Item Description	Recommended Quantity
D1000 ScreenTape devices* (from a box of 7).	1
D1000 Reagents* including ladder & sample buffer.	1
Water as sample for a blank run	1 ml
Centrifuge** for tube strips (for 4150 TapeStation instrument).	1
Centrifuge** for tube strips and 96-well plate (for 4200 TapeStation instrument).	1
IKA MS3 Vortex (supplied with instrument as delete option) IKA p/n 4674100	1
Heat block or PCR instrument*** for heating of RNA ladder and samples, with lid heating. Suitable for 200µl tube strips and full skirted 96-well sample plate.	1
RNAse Zap *** for cleaning workspace.	1
Calibrated, volumetric Pipettes and Pipette tips (1-2µl, 10µl and 100µl)	1 each

* Example assay only. See list below for alternatives.

** Centrifugal force or approximately 500g required.

*** Required for RNA assays only.

Please note:

Tube strips, tube caps and loading tips come with the system and are partially used during installation and familiarization. For 4200 TapeStation systems 96-well sample plate and sealing foils come additionally with the system.

- 3 ScreenTape devices and associated reagents are not provided with the 4200 or 4150 TapeStation instrument delivery and must be purchased separately. Please note the reagent specific storage conditions upon their arrival.
- 4 ScreenTape devices and reagents for the chosen assay must be purchased by the customer prior to the installation.
- 5 The following table lists the available consumables by application. Find more details on included components and quantities in the respective Quick Guide of the assays on www.agilent.com/genomics/tapestation.

Application	Item Description	Part Number
D1000 ScreenTape assay	7 x D1000 ScreenTape devices	5067-5582
	1 x D1000 Reagents including D1000 Sample Buffer and D1000 Ladder	5067-5583
High Sensitivity D1000 ScreenTape assay	7 x High Sensitivity D1000 ScreenTape devices	5067-5584
	1 x High Sensitivity D1000 Reagents including HS D1000 Sample Buffer and HS D1000 Ladder	5067-5585
Genomic DNA ScreenTape assay	7 x Genomic DNA ScreenTape devices	5067-5365
	1 x Genomic DNA Reagents including Genomic DNA Sample Buffer and Genomic DNA Ladder	5067-5366
Cell-free DNA ScreenTape assay	7 x Cell-free DNA ScreenTape devices	5067-5630
	Cell-free DNA Reagents including Cell-free DNA Ladder and Cell-free DNA Sample Buffer	5067-5631
RNA ScreenTape assay	7 x RNA ScreenTape devices	5067-5576
	1 x RNA ScreenTape Sample Buffer	5067-5577
	1 x RNA ScreenTape Ladder	5067-5578
High Sensitivity RNA ScreenTape assay	7 x HS RNA ScreenTape devices	5067-5579
	1 x HS RNA ScreenTape Sample Buffer	5067-5580
	1 x HS RNA ScreenTape Ladder	5067-5581
D5000 ScreenTape assay	7 x D5000 ScreenTape devices	5067-5588
	1 x D5000 ScreenTape Reagents including D5000 Sample Buffer and HS D5000 Ladder	5067-5589

Application	Item Description	Part Number
High Sensitivity D5000 ScreenTape assay	7 x High Sensitivity D5000 ScreenTape devices	5067-5592
	1 x High Sensitivity D5000 Reagents including HS D5000 Sample Buffer and HS D5000 Ladder	5067-5593