

Agilent CrossLab Start Up Services

Agilent Cary 3500 UV-Vis System Site Preparation Checklist

Thank you for purchasing an instrument from **Agilent Technologies**. CrossLab Start Up is focused on helping customers shorten the time it takes to start realizing the full value of their instrument investment.

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, space, and utility requirements for the system set up in your lab.

Introduction

Customer Information

- If you have questions or problems in providing anything described as part of *Customer Responsibilities* below, 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.
- Should your site not be ready for whatever reasons, please contact Agilent as soon as possible to re-schedule any services that have been purchased.
- 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.
- Please refer to the other peripheral products (ie, samplers etc.) for site preparation requirements.
- If repair is required, the main repair option for your Cary 3500 UV-Vis system is by utilizing the Instrument Exchange or Return to Agilent programs. Please consult your local Agilent representative for more information.

Customer Responsibilities

Ensure that 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.
- The required **environmental conditions for the lab** as well as laboratory gases, tubing, plumbing and extraction.
- The **power requirements** related to the product (e.g. **number & location** of electrical outlets).
- The **required operating supplies** necessary for the product and installation.
- While Agilent is delivering **Installation and Introduction** services, users of the instrument should be present throughout these services; otherwise, they will miss important operational, maintenance and safety information.
- Please consult the **Special Requirements and Other Considerations** section below for other product-specific information
- The Cary 3500 is a network device and uses network infrastructure for communication. Zeroconf (Zero Configuration Networking) is used for instrument discovery and connection. In

In addition, the instrument is using DHCP by default so if necessary, an IP address can be obtained from the network DHCP server. It is also possible to set a static IP for the instrument. Please inform your IT department in case some configuration needs to be made prior to installation of your system. If instrument is being connected to your network and a static IP is required, ensure the IP has been assigned prior to installation.

- For more details, please consult the product-specific site preparation or pre-installation manual.

Important Customer Web Links

- To access Agilent training and education, visit <http://www.agilent.com/chem/training> to learn about training options, which include online, classroom and onsite delivery. A training specialist can work directly with you to help determine your best options.
- To access the **Agilent Resource Center** web page, visit <https://www.agilent.com/en-us/agilentresources>. The following information topics are available:
 - Sample Prep and Containment
 - Chemical Standards
 - Analysis
 - Service and Support
 - Application Workflows
- The **Agilent Community** is an excellent place to get answers, collaborate with others about applications and Agilent products, and find in-depth documents and videos relevant to Agilent technologies. Visit <https://community.agilent.com/welcome>
- Videos about specific preparation requirements for your instrument can be found by searching the **Agilent YouTube** channel at <https://www.youtube.com/user/agilent>
- **Need to place a service call?** [Flexible Repair Options | Agilent](#)

Site Preparation

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.

Special notes

- The weight and the dimensions of the system allow it to be placed on almost any desk or laboratory bench but remember to provide enough space for the computer, monitor and printer and any additional accessories that have also been purchased.
- Ensure the surface where the Cary 3500 system will be placed is flat and even. There must be no steps, ledges or irregularities in the work surface.
- Do not allow the Cary 3500 system to hang over the edge of the work surface.
- Ensure that the workbench is free from vibration. Any equipment generating vibration during operation must be placed on the floor rather than alongside the Cary 3500 UV-Vis on the workbench.
- For models with Peltier control, you must allow for the circulation of air for cooling, allow for 20cm (8 inches) of space on both sides and approximately 10 cm (4 inches) in the rear for electrical, gas connections and air flow.
- For models that have Peltier temperature control, clear and unobstructed airflow of the inlet and outlet must be maintained. Ambient air must be allowed to enter the inlet and other heat sources such as exhausts, computers or other nearby Peltier modules must be avoided.
- For models without Peltier control you must allow for the circulation of air for cooling, allow for 10cm (4 inches) of space on both sides and approximately 10cm (4 inches) in the rear for electrical connections and air flow.
- The computer, including the keyboard is approximately 50 cm (19.7 inches) wide and 60 cm (23.6 inches) deep.
- The power cord and communication connection are located at the rear of the instrument. The power switch is also located at the rear and user accessible ports are located on the left. The right side has the locking lever.
- For systems with Peltier temperature control, an additional power cord is located on the right side of the module. An additional power switch is also located on the right side of the module.

- To avoid damage through the spillage of analyzed samples, the worktops should be covered with a material that is corrosion resistant and impervious to liquids.
- To avoid injury to personnel or damage to equipment, always use proper lifting techniques when removing or replacing instrument/modules.
- The Cary 3500 UV-Vis System can have some weight placed on the Engine. This must not exceed 10kg (static). Do not subject the system to any shocks.
- No weight is to be placed on the modules.

Desk or Laboratory Bench Requirements (unpacked)

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
G9861AA/G9871A Cary 3500 Compact UV-Vis	21.7	47.8	28	11	43.5	17.1	44.5	17.5
G9862AA/G9872A Cary 3500 Compact Peltier UV-Vis	23.9	52.7	28	11	43.5	17.1	44.5	17.5
G9865AA/G9873A Cary 3500 Multicell UV-Vis	27.0	59.5	28	11	70	27.6	44.5	17.5
G9866AA/G9874A Cary 3500 Multicell Peltier UV-Vis	34.2	75.4	28	11	70	27.6	44.5	17.5
G9867AA Cary 3500 Multizone Peltier UV-Vis	34.2	75.4	28	11	70	27.6	44.5	17.5
G9875A Cary 3500 Flexible UV-Vis System	30.6	67.5	34	13.4	70	27.6	44.5	17.5

Dimensions and Handling Weights (without packaging)

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
G9864A Cary 3500 UV-Vis Engine	15.1	33.3	25	9.8	23	9.1	44.5	17.5
G9893A Cary Compact UV-Vis Module	6.6	14.6	28	11	20.5	8.1	42	16.5
G9894A Cary Compact Peltier UV-Vis Module	8.8	19.4	28	11	20.5	8.1	42	16.5
G9888A Cary Multicell UV-Vis Module	11.9	26.2	28	11	47	18.5	42	16.5
G9889A Cary Multicell Peltier UV-Vis Module	19.1	42.1	28	11	47	18.5	42	16.5
G9886A Cary UV-Vis Flexible Module	15.5	34	34	13.4	47	18.5	42	16.5

Handling Dimensions and Weights (packaging included)

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
G9864A Cary 3500 UV-Vis Engine	18.9	42	43	17	40	16	59	23
G9893A Cary Compact UV-Vis Module	9.2	20	44	17.5	35	14	56	22
G9894A Cary Compact Peltier UV-Vis Module	11.4	25	44	17.5	35	14	56	22
G9888A Cary Multicell UV-Vis Module	17.1	38	46	18	59	23	64	25
G9889A Cary Multicell Peltier UV-Vis Module	24.3	54	46	18	59	23	64	25
G9886A Cary UV-Vis Flexible Module	19.9	44	49.5	19.5	63.9	25	58.6	23

Environmental Conditions

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

Special notes

- Performance can be affected by sources of heat & cold, e.g. direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations.
- The bench or supporting surface must be vibration free and stable.
- The laboratory's ambient temperature conditions must be stable for optimum performance.
- For optimum performance the area should have a dust-free, low humidity atmosphere. A layer of dust on the electronic components and heat sinks could act as an insulating blanket and reduce heat transfer to the surrounding air.
- The site's ambient temperature conditions must be stable for optimum performance.
- Air conditioning is recommended. The site's ambient temperature conditions must be stable for optimum performance. It is recommended that the ambient temperature of the laboratory be between 20 and 25°C and be held stable within 2°C throughout the entire working day.
- Any spills must be cleaned up immediately.
- Sample preparation areas and materials storage facilities should be in a separate room.
- The Cary 3500 can be stored at altitudes up to 4,600 m (15,091 ft.) and operated at altitudes up to 3,100 m (10,170 ft.).

The following table may help you calculate the additional BTUs of heat dissipation from this new equipment. Maximums represent the heat given off when heated zones are set for maximum temperatures.

Operating conditions

Instrument Description	Operating Temperature Range °C (F)	Operating Humidity Range %
Cary 3500 Compact UV-Vis	15 to 35 (59 to 95)	15 to 80%, non-condensing
Cary 3500 Compact Peltier UV-Vis	15 to 35 (59 to 95)	15 to 80%, non-condensing
Cary 3500 Multicell UV-Vis	15 to 35 (59 to 95)	15 to 80%, non-condensing
Cary 3500 Multicell Peltier UV-Vis	15 to 35 (59 to 95)	15 to 80%, non-condensing
Cary 3500 Multizone Peltier UV-Vis	15 to 35 (59 to 95)	15 to 80%, non-condensing
Cary 3500 Flexible UV-Vis	15 to 35 (59 to 95)	15 to 80%, non-condensing

Non-operating conditions

Instrument Description	Non-operating Temperature Range °C (F)	Non-operating Humidity Range %
Cary 3500 Compact UV-Vis	-20 to 70 (-40 to 158)	15 to 95%, non-condensing
Cary 3500 Compact Peltier UV-Vis	-20 to 70 (-40 to 158)	15 to 95%, non-condensing
Cary 3500 Multicell UV-Vis	-20 to 70 (-40 to 158)	15 to 95%, non-condensing
Cary 3500 Multicell Peltier UV-Vis	-20 to 70 (-40 to 158)	15 to 95%, non-condensing
Cary 3500 Multizone Peltier UV-Vis	-20 to 70 (-40 to 158)	15 to 95%, non-condensing
Cary 3500 Flexible UV-Vis	-20 to 70 (-40 to 158)	15 to 95%, non-condensing

Exhaust Venting Requirements

- The Cary 3500 is designed for operation in clean air conditions. The laboratory must be free of all contaminants that could have a degrading effect on the instrument’s components.
- Dust, acid and organic vapors, such as acetone, must be expelled from the work area. It is your responsibility to provide an adequate exhaust system. An exhaust system is not required for normal operation of the Cary 3500 but should be installed if substances giving off toxic vapors are to be analyzed.

Power Consumption

Special notes

- If a computer system is supplied with your instrument, be sure to account for those electrical outlets.
- A separate power outlet receptacle should be provided for the Cary 3500 Series UV-Vis system.
- Always operate your instrument from a power outlet which has a ground connection. Make certain that power outlets are earth-grounded at the grounding pin.
- Good electrical grounding is essential to avoid potentially serious shock hazards and for the instrument to perform within its specifications.
- All power supplies for the Cary 3500 Series UV-Vis must be single-phase, AC voltage, three-wire system (active, neutral, earth) with ground connection must be provided and should be terminated at an appropriate power outlet receptacle that is within reach of the power cord.
- The use of extension cords or outlet adaptors is not recommended.
- The Cary 3500 Series UV-Vis system is supplied with power cord and three-pin plug assembly that is designed for your region and is compatible with common standards applicable in the local area.
- Do not position the equipment so that it is difficult to operate the disconnecting device.
- Avoid using power supplies from a source that may be subject to electrical or RF interference from other services (large electric motors, elevators, and welders, for example).
- Power cords are provided based on the user's country requirements. Only the supplied power cord is to be used with this equipment. The installation of electrical power supplies must comply with the rules and/or regulations imposed by local authorities responsible for the supply of electrical energy to the workplace.
- If necessary, replace the power cord only with a cord equivalent to the one specified.

Instrument Description	Line Voltage and Frequency V, Hz	Maximum Power Consumption VA	Maximum Power Consumption W
G9864A Cary 3500 UV-Vis Engine	100 to 240 VAC 50 to 60Hz	100	70
G9894A Cary Compact Peltier UV-Vis Module	100 to 240 VAC 50 to 60Hz	130	122
G9889A Cary Multicell Peltier UV-Vis Module	100 to 240 VAC 50 to 60Hz	480	450

Power cables for Instrument and PC

Part Number	Description
8120-0674	Power cord - Thailand and Philippines
8120-1369	Power Cord, Australia/NZ, C13, 10 amp
8120-1378	Cable Assembly-Power Cord 18AWG 2.3m-LG
8120-2104	Cable-Assembly-Power cord 250VAC 10A 3-C
8120-3997	Power Cord, DK/Greenland, C13, 10 amp
8120-4211	Power Cord, India/S Africa, C13, 10 amp
8120-4753	Power Cord, Japan, C13, 125V
8120-5182	Power Cord, Israel, C13, 10 amp
8120-6869	Power Cord, Argentina, C13 250V 10A RA/3
8120-6978	Power Cord, Chile, C13, 10 amp
8120-8705	Power Cord, GB/HK/SG/MY, C13, 10 amp
8121-0723	Cable-Assembly Power-Cord 3-Conductor 25
8121-1226	Power Cord, Europe+S Korea C13, 10A, 250V
8121-1635	Power cord - Taiwan
8121-1638	Power cord - Cambodia
8121-1809	Power Cord, Brazil, C13, 250V Max
8121-3201	India specific C13 power cord (P/N 8121-3201)

Power cables for LAN switch (if applicable)

Part Number	Description
8120-6313	Power Cord, US, C7, 125V, 2.5A, 1-15P Plg
8120-8336	Power Cord, Japan, 2- wire, C7, 125V, 7A
8120-8337	Power Cord, Australia, 2 wire
8120-8340	Power Cord, Europlug, C7, 250V Max, 2.5A
8120-8346	Power Cord, China, 2 wire
8120-8420	Power Cord Korea
8120-8421	Power Cord India / South Africa
8120-8367	Power-Cord OPT-950 2-COND 1.8-M-LG
8120-8452	Power Cord South America
8120-8719	Power Cord, UK

Required Operating Supplies by Customer for Installation

Special notes

- Download the Essential Chromatography and Spectroscopy Supplies Catalogs for a complete overview about available supplies for your new and existing Agilent Instruments.
<https://www.agilent.com/en-us/products/lab-supplies>
- A Starter Kit containing two quartz cuvettes, caffeine sample and sample holder is provided with your Cary 3500 UV-Vis system. Please ensure this is available at the time of installation and familiarization activities. (Currently not supplied in China so please find suitable alternatives).

Item Description (including Dimensions etc.)	Vendor's Part Number (if applicable)	Recommended Quantity
Rectangular cell UV 10mm 3.5mL open 2/pk	6610000800	8 (Multicell) 2 (Compact)
Lens cleaning paper	9300-0761	10 pkts
Cell cleaning fluid	5190-0530	1
Cary 3500 UV-Vis Temperature Probes	G9889-60005	8 (temperature probes are consumable items)
Cary 3500 UV-Vis Purge Kit (for Peltier Modules/systems)	G9864-68000	1 per module

Special Requirements and Other Considerations

Magnetic Fields

- The Cary 3500 Flexible UV-Vis System and Cary UV-Vis Flexible Module are provided with a Cary Accessory Plate that contains magnets. The following symbol indicates their presence:



WARNING



Magnetic field

Magnets produce a far-reaching, strong magnetic field. They could damage TVs and laptops, computer hard drives, credit and ATM cards, data storage media, mechanical watches, hearing aids and speakers. Keep magnets at least 25 mm away from devices and objects that could be damaged by strong magnetic fields.

Compressed Gases

- The Cary 3500 UV-Vis requires the supply of compressed gas when Peltier temperature-controlled Modules are used. It is required to prevent condensation of the sample compartment when temperatures below ambient are set. In addition, the flow rate must be set to the flow specified. The supplied gas must be dry, oil and particle free and non-combustible.
- Operation of Peltier Modules on the Cary 3500 UV-Vis system requires the use of compressed gas. Pressurized gases are hazardous. Observe the appropriate safety precautions when connecting or disconnecting.

Applicable products

Instrument Description	Product Number	Flow Rate (LPM)
Cary 3500 Compact Peltier UV-Vis	G9862AA/G9872A	5
Cary 3500 Multicell Peltier UV-Vis	G9866AA/G9874A	15
Cary 3500 Multizone Peltier UV-Vis	G9867AA/G9874A	15
Cary 3500 Compact Peltier UV-Vis Module	G9894A	5
Cary 3500 Multicell Peltier UV-Vis Module	G9889A	15

Purge Kit

Product Number	Description	Maximum Pressure
G9864-68000	Cary 3500 UV-Vis Purge Kit Includes 5 metres of 6mm OD/4mmID tubing and 0 to 30 LPM flow meter	689kpa (100PSIG)

Purge Requirements

Compressed Gas	Description
Nitrogen	Moisture content < 2570ppm (dew point @ -10degC) Acceptable sources are from bottled gas with industrial, medical or food grade nitrogen.
Air	Compressed Air: ISO 8573-1:2010 CLASS 1.3.1

Tools

Your Agilent instrument comes with a few basic tools and consumables which are relevant to the specific configuration of your system.

Tools (provided)

Supplied With	Description	Part Number	Purpose
G9875 Cary 3500 Flexible UV-Vis System G9886 Cary Flexible UV-Vis Module	8mm open-ended wrench	8710-2353	Used for aligning the sample compartment accessories
	3mm ball driver	7210020800	Used for aligning the sample compartment accessories

Service Engineer Review (Optional)

Service Engineer Comments

If the Service Engineer completed a review of the Site Preparation requirements with the customer, the Service Engineer should complete the following Comments section.

If there are any specific points that should be noted as part of performing the service review or other items of interest for the customer, please write in this box.

Site Preparation Verification

Service Request Number:

Date of Review:

Service Engineer Name:

Customer Name:

Service Engineer Signature:

Total number of pages in this document: