

## Agilent CrossLab Start Up Services

# Agilent 4300 Handheld FTIR 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.

## 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.
- 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.

## 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

- Instrument will be delivered in a dedicated carry case. Please consider a storage space and do keep the case for any future shipment or transportation.
- The instrument is designed and ideal for mobile in field use. For the use in a laboratory with the instrument stand due to its light weight and small dimensions the system allows it to be placed on almost any desk or laboratory bench but remember to provide enough space for the laptop.
- Ensure that the workbench is free from vibration. Any equipment generating vibration during operation must be placed on the floor rather than alongside the 4300 Handheld FTIR instrument on the workbench.
- Do not subject the instrument to any shocks.
- The power connection is located at rear side of the bottom battery compartment. The micro-USB communication connection for the 4300 Handheld FTIR instrument is located at the rear left and the power button at the rear right of the instrument head.

The following table provides dimensions and weight requirements.

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs.	cm	in	cm	in	cm	in
4300 Handheld FTIR Instrument without/with batteries	1.88/2.22	4.15/4.9	34.5	13.6	19.1	7.5	10.2	4
Diamond-ATR Accessory	0.09	0.20	7	2.75	7.4	2.9	5.8	2.3
Germanium-ATR Accessory	0.11	0.25	7	2.75	7.4	2.9	5.8	2.3
Diffuse Reflectance Accessory	0.2	0.45	7	2.75	8.6	3.4	5.8	2.3
External Reflectance Accessory	1.6	0.35	7	2.75	7.4	2.9	5.8	2.3
Grazing Angle Accessory	1.4	0.30	7	2.75	7.4	2.9	5.8	2.3

## 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 flat, stable and vibration free.
- The instrument must be kept away from hot surfaces and any sources of electromagnetic interference.
- The site's ambient temperature conditions must be stable for optimum performance.
- For optimum analytical performance, it is recommended that the ambient temperature of the laboratory be between 20 and 25 °C and be held stable within  $\pm 2$  °C throughout the entire working day.
- After receiving the Agilent 4300 Handheld FTIR delivery, do not immediately open the shipping container. Instead, place the shipment in a room-temperature environment and allow several hours for the contents of the container to reach room ambient temperature. This is to avoid unnecessary condensation on the components prior to the initial setup and installation process.
- The 4300 handheld FTIR instrument can be operated at altitudes up to 2000 m (6,560 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.

Instrument Description	Operating Temperature Range °C (F)	Operating Humidity Range %
4300 Handheld FTIR Instrument and accessories (operational)	0 to 50 °C (32 to 122 °F)	Up to 95% non-condensing
4300 Handheld FTIR Instrument and accessories (in storage)	-25 to 75 °C (-13 to 167 °F)	Up to 95% non-condensing

## 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 4300 Handheld FTIR instrument.
- 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 4300 Handheld FTIR instrument must be single-phase, AC voltage, 3-wire system (active, neutral, earth) and should be terminated at an appropriate power outlet receptacle that is within reach of the power cord.
- Universal Power supply and a country dependent power cord are supplied with the 4300 Handheld FTIR instrument.
- The use of extension cords or outlet adaptors is not recommended.
- Do not position the equipment so that it is difficult to operate the power switch.
- 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
4300 Handheld FTIR Instrument	100 – 240 V, 50 – 60 Hz	240 VA	60W

- Use the correct power cord regarding your region.

## 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

## Required Operating Supplies by Customer for Installation

### Special notes

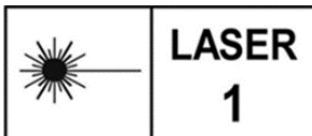
- For information on Agilent consumables, accessories, and laboratory operating supplies, please visit: [FTIR Spectrometry, Fourier Transform Infrared Spectroscopy | Agilent](#).
- The below items are included with the appropriate accessory but may also be obtained using the following part numbers from Agilent Technologies.

Item Description (including Dimensions etc.)	Vendor's Part Number (if applicable)	Recommended Quantity
4300 HH FTIR Polystyrene Ref Sample	G8180-67300	1 (one), for System Check tests
USB Cable 2M A to Micro B	430-0164	1 (one), to connect the instrument with the PC/Notebook

## Special Requirements and Other Considerations

### Special notes

- Use of the 4300 Handheld FTIR and accessories may involve materials, solvents and solutions that are flammable, corrosive, toxic or otherwise hazardous. Careless, improper, or unskilled use of such materials, solvents and solutions can create explosion hazards, fire hazards, toxicity and other hazards which can result in death, serious personal injury, and damage to equipment and property.
- ALWAYS ensure that safety practices governing the use, handling and disposal of such materials are strictly observed. These safety practices should include the wearing of appropriate safety clothing and safety glasses.
- Unpacking the equipment is your responsibility. As the packages are opened, ensure you received everything you ordered. If there are any discrepancies, notify the supplier. If any items are found to be damaged, immediately notify the carrier and supplier. Any differences from the original order should be referred immediately to your Agilent sales office.
- Your Agilent Series 4300 Handheld FTIR spectrometer has been designed to comply with the requirements of the Electromagnetic Compatibility (EMC) Directive and the Low Voltage (electrical safety) Directive (commonly referred to as the LVD) of the European Union. Agilent has confirmed that each product complies with the relevant Directives by testing a prototype against the prescribed EN (European Norm) standards.



- **WARNING: Laser Hazard**
- The Model 4300 Handheld FTIR spectrometer contains a low-powered solid-state laser required for operation. The laser emits radiation and can cause injury to the eye. Do not stare directly into the beam.
- Class 1 Laser Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007 CDRH Accession No. 0321242 IEC 60825-1:2007.

## 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: