Before Your Spectrometer Arrives

Prepare a suitable workspace for your spectrometer before it arrives to ensure the most accurate data and the best long-term performance.

This article explains what to do when your spectrometer arrives and introduces environmental and electrical factors that can influence your spectrometer's performance. For a more comprehensive explanation of these requirements, see the Site and Safety Information installed on your Summit spectrometer.

Unpacking the Spectrometer

Before you open the box, there are two important steps to take as soon as the instrument arrives:

- Check the exterior of the shipping box for damage

  If you notice any signs of damage, contact us or your local distributor for instructions.

- Allow the spectrometer to come to room temperature

  Inside the shipping box, the spectrometer is sealed in a plastic bag to keep it dry. **You must allow 24 hours for the spectrometer to reach room temperature before you open the bag.** If you open the bag before the spectrometer is warmed up, condensation could form that could damage internal optical components and cause permanent damage.

The warranty will not cover damage due to improper moving techniques or to removing the sealed plastic bag before the instrument has come to room temperature.

Preparing the Workspace

Before your instrument arrives, make sure your workspace will be able to properly support the spectrometer. In addition to allowing enough room for the spectrometer, consider several environmental and electrical requirements.

Spectrometer Dimensions

The Summit spectrometer requires a fairly small space, but make sure you also leave room around the instrument so that heat can dissipate from the vents and so that you can easily access the instrument's ports, power button, and cables.

- Summit instrument weight: 10.9 kg (24 lbs)
- Summit instrument weight with touchscreen option: 12.6 Kg (27.8 lbs)
- Dimensions (W x H x D):
  - 34 cm x 24 cm x 32 cm; (13.3 in. x 9.6 in. x 12.7 in.)
- Dimensions with touch screen display option (W x H x D):
  - 53 cm x 43 cm x 32 cm; (20.8 in. x 17.0 in. x 12.7 in.)

Environmental Factors

The Summit spectrometer is a robust instrument designed to be used in many environments. However, for best performance, keep it in a relatively dust-free and low-humidity environment. The spectrometer operates reliably at temperatures between 15 and 35 °C, but for optimal performance should be kept between 20 and 22 °C.

Humidity can cause condensation to form inside the instrument, which could damage internal components. A few precautions can typically protect your instrument from humidity:

- Maintain the instrument's desiccant, including while the instrument is in storage.
- Avoid rapid changes in temperature.
  - Keep the instrument away from sources of cool or hot air, such as near heating and air conditioning vents or large windows.

If your spectrometer will be kept in an especially humid environment, consider installing a purge gas kit.

Electrical Requirements

Power supplied to the spectrometer must be from dedicated, uninterrupted sources and free from the following issues:

- Voltage dropouts
- Transient spikes
- Frequency shifts
- Other line disturbances

If you suspect problems with your power, we recommend a power quality audit. Contact us or your local electrical authority for more information.

Electrical Service Specifications

The following table lists specifications for electrical service. Contact our service representative in your area if you have questions about the requirements.

Requirements	Specification
Input Current	1.6 A Max
Input Voltage	100–240 VAC
Line Frequency	47–63
Line Disturbances	Sags, surges, or other line disturbances must not exceed 10% of input voltage
Noise	Less than 2 V (common mode) Less than 20 V (normal mode)