

Agilent Cary 5000 UV-Vis-NIR Spectrophotometer

Operating Instructions

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Capabilities: 175--3300 nm

Power On and Setup

1. Turn on the Cary moving the on/off toggle switch on the front of the instrument to **I/On**. Make sure the green light illuminates. The instrument will take several minutes to warm up and perform a self-test; some clicking and motor noises are normal.
2. Logon using `.\labuser` as the username and `labuser` as the password.
3. Open the software by clicking the **Scan** shortcut on the Desktop.
4. Click the **Setup** button in the upper left corner of the Scan software, and then select `Summary > Instrument Settings > Cary Options` from the menu at the left of the resulting window.
 - o For **Absorption** measurements:
 1. Select the wavelength range and units in the *X Mode* section.
 2. Select **Abs** from the *Mode* dropdown menu in *Y Mode*; select appropriate Y-min and Y-max values (0.00 and 1.00 are good defaults).
 3. Select your desired averaging time (*Ave time (s)*), *Data interval (nm)*, and *Scan rate (nm/min)* under *Scan Controls*.
 4. Click **OK** to save your settings.
5. Select `Summary > Instrument Settings > Baseline`, then select the **Zero/Baseline Correction** radio button.

Making an Measurement

1. Ensure the the instrument has had a chance to come online by checking to see menu bar says "*Scan - Online*" (NOT "*Scan - Offline*"). If the instrument is not yet online wait a few minutes for it to finish warming up.
2. Block the beam and click the **Zero** button to conduct the 0% T measurement. Click **OK** in the load sample prompt that appears.
3. Load a blank sample into the cuvette holder and click the **Baseline** button, then click **OK** when the sample is ready.
4. Click the **Start** button (green traffic light) and choose a datafile location for your run.
5. Enter a sample name for the first sample you would like to run and click **OK**. The instrument will begin scanning through the wavelength range selected; to stop it, press the **Stop** button (stop sign).
6. To run another sample, enter a new name and click **OK**, or click *Finish* to stop collecting data.

Shutdown

1. Make sure any data you wish to save has been saved and/or moved to `\\neon`.
2. Click the red **X** or `File > Exit` to close the program, as with any Windows program.
3. Switch the toggle switch on the front of the instrument to the **O/Off** position.
4. Log off of the computer.