




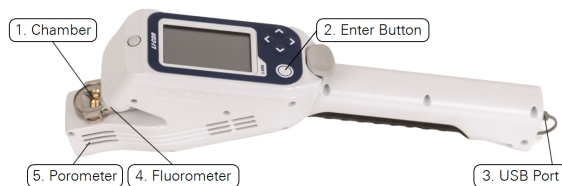
LI-600N Porometer/Fluorometer Quick Start Guide

Online resources

-  **Computer Software** Configuration and data management, calibration, barcode generator: licor.com/600Nsoftware
-  **Instruction Manual** Manual, software, videos, FAQs, tech tips, application notes, and more: licor.com/600Nsupport
-  **Technical Support** Comprehensive instructions, operating theory, and maintenance: licor.com/600Nmanual

What's what

- 1 Chamber:** Active measurement site.
- 2 Enter Button:** Powers on, selects options, initiates or logs a measurement.
- 3 USB Port:** Charges and connects to a computer with a USB cable.
- 4 Fluorometer:** Measures PAM chlorophyll *a* fluorescence.
- 5 Porometer:** Measures stomatal conductance.



Charge the battery

The LI-600N arrives partially charged. Connect the LI-600N to a power source with the USB cable and charge to 100%.

Take a measurement

The following instructions are for the **gsw+F** configuration preloaded on the instrument.

Step 1: Power on the LI-600N.

Press and hold the **Enter button** to power on the LI-600N.

Step 2: Select a configuration.

Start with the preloaded **gsw+F** configuration and press the **Enter button**.

Step 3: Match the sensors.

The LI-600N will enter match mode. Respond to the prompt. When matched, it will beep and go to the Measurements screen.

Step 4: Clamp to a needle or leaf.

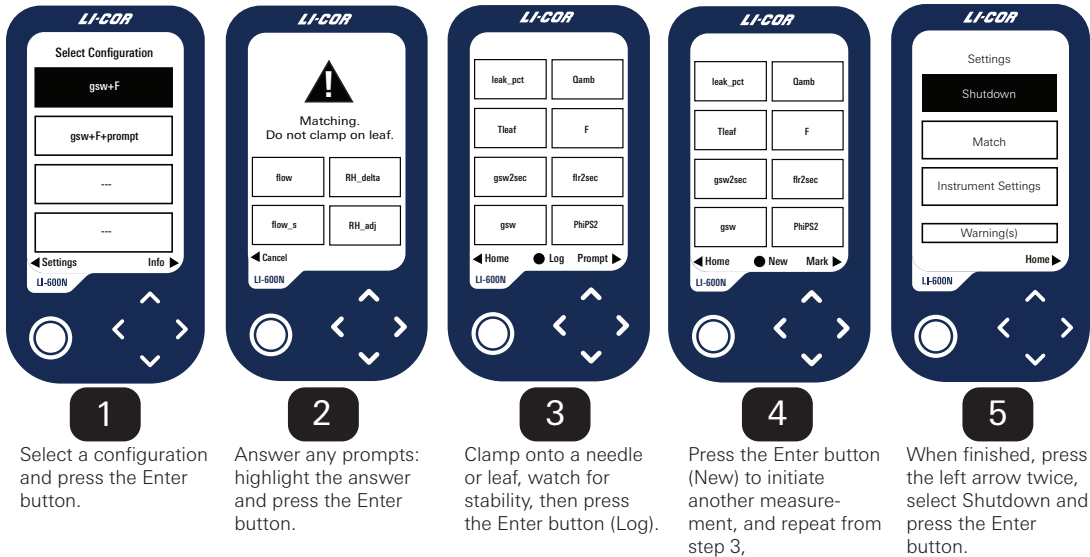
Watch for stability in the g_{sw} variable. Press the **Enter button** (Log) to log the measurement when g_{sw} is stable. After the LI-600N displays Logged and beeps, release the needle or leaf. View the data from the measurement on the screen. Press the **Enter button** (New) to start another measurement, or press the left arrow twice to navigate to **Settings** to **Shutdown**.

Step 5: Download the data.

Install the LI-600N computer software. Connect the LI-600N to the computer via USB and download the data to the computer software. Export the data from the software as a .zip file that contains .csv and Excel files.

Workflow for taking a measurement

The workflow for taking a measurement varies depending on the configuration. The following is for **gsw+F** with prompt on log disabled. See the user manual for detailed instructions on those settings.



Measurement techniques

- **Align the needle or leaf with the opening in the aperture.** If they are not aligned, the IRT sensor will not accurately measure the sample.
- **Maintain the light conditions of the leaf.** Do not alter the light or shade the leaf you are measuring. If, while taking a measurement, you shade the leaf you plan to measure next, unshade the leaf and wait 60 seconds before measuring it. Changes to light at the leaf surface will affect *PhiPSII* and *gsw*.
- **Match the quantum sensor's light conditions to those of the leaf.** If the leaf you measure is in the light, ensure that the quantum sensor is also in the light. If the leaf you measure is in shade, ensure that the quantum sensor is also in the shade. A mismatch between the leaf and the quantum sensor may result in a significant error in *ETR* calculation.
- **Avoid measuring a needle or leaf with water on it.** If the needle or leaf you plan to measure has water or condensation on it, gently and thoroughly dry it. Measuring a wet needle or leaf may result in overestimation of stomatal conductance, and water ingress into the instrument may cause damage.

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