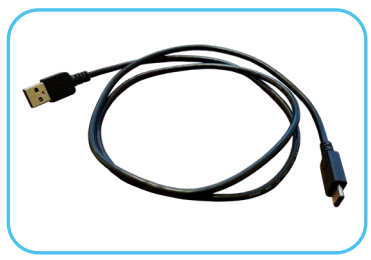
Rayo S600

(Quick Start Guide)

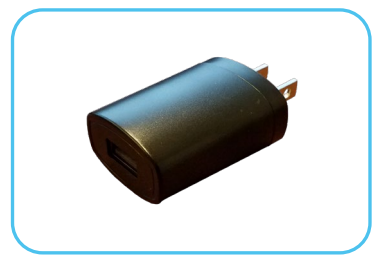
Included in this shipment:



Rayo S600
(with microSD card)



USB Cable



Power Adapter

Steps

Step 1: Upon receipt

Carefully remove packing materials and retain them for future shipment or storage of the unit. Confirm receipt of all components and device. Examine the unit carefully for any damage incurred during transit. The microSD card should already be installed in the Rayo S600.

Step 2: Downloading the software and connecting the device

Download the Cerillo Labrador software onto your computer at **cerillo.bio/software**. Find detailed instructions for Labrador installation and use at: **labradormanual.cerillo.bio**. Use the provided USB cord to connect your Rayo S600 to your computer and confirm communication between Labrador and your Rayo S600.

Connecting wirelessly: Connect Canopy to your computer and power your Rayo S600 (Step 6). Follow instructions on the Canopy Quick Start Guide to set up and confirm communication between Labrador, Canopy, and your Rayo S600.

Step 3: Experimental setup

Set the measurement interval in Labrador by clicking on your device and then Settings (gear icon in the top-right corner of the screen). Format your plate layout/running your experiment. Place your Rayo S600 where you'd like to measure.

This is anywhere your samples will be happy in an incubator, anaerobic chamber, benchtop, hood, etc. See detailed specs in your User Manual.

Step 4: Allow for equilibration

The Rayo S600 should remain at a constant temperature throughout the experiment, especially during calibration. Equilibrate your Rayo S600 to new environmental conditions for at least 2-4 hours, while connected to power. Overnight equilibration, for example by setting the Rayo S600 in an incubator after inoculating your starter culture, can be helpful.

Step 5: Seal your plate

With a transparent, breathable membrane. Membranes (ex: Breathe-Easy) most effectively prevent measurement errors due to condensation or evaporation during long experiments.

Step 6: Power the device

Use the USB cable provided to plug your Rayo S600 into the power adapter and a standard wall outlet, a battery pack, or a computer.

Step 7: Go! (See details on back side)

Measurements

Labrador can be used to start and stop a read while the device is connected. Otherwise, use the buttons according to the following diagram:

Start

Press: Endpoint experiment

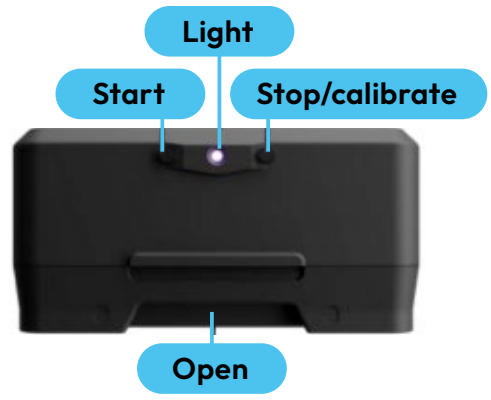
Hold: Kinetic experiment

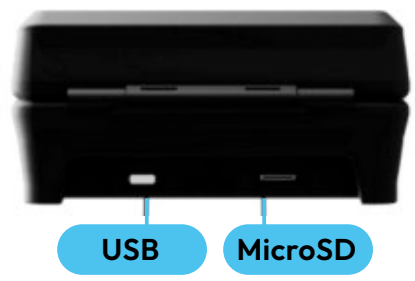


Stop/Calibrate

Press: Stop experiment

Hold: Calibrate





Endpoint Reading

Calibrate while empty, then begin experiment: After setting up and queuing an experiment in Labrador, press and hold the stop/calibrate button until the status light flashes white. Release the button. The status light will turn cyan, indicating that the device is calibrating. Wait for the status light to turn off, indicating that calibration is complete. Insert your plate into your Rayo S600. Press and quickly release the start button. The status light will briefly turn green to indicate the experiment has started. The light will turn yellow when the Rayo S600 has completed collecting data.

Kinetic Experiment

Option 1 (Default) - Auto-calibration to plate, then begin experiment: Insert your plate into your Rayo S600. After setting up and queuing an experiment in Labrador, press and hold the start button until it flashes white. Once the button is released, the status light will turn cyan during calibration, and then green during measurement. The Rayo S600 will automatically continue with measurements after calibration.

> ! **Note:** If “enable kinetic auto-calibration” has been unchecked, Option 2 will become default instead of Option 1.

Option 2 Calibrate while empty, then begin experiment: In Labrador, navigate to your device, click the gear icon to access settings, uncheck “enable kinetic auto-calibration,” and click “save.” Your device will no longer automatically calibrate before starting experiments. After setting up and queuing an experiment in Labrador, follow the same calibration procedure described in “Endpoint reading” above. Once calibration is complete, insert your plate. Press and hold the start button to begin an experiment as described in Option 1 above. The device will immediately begin taking measurements, as indicated by a green status light.

Ending an Experiment:

Experiment: Press the stop button. The status light will turn red. If the Rayo S600 is in the middle of a read, you may need to press the stop button again and hold until the light turns red.

White: Booting Red: Stop Green: Read/Reading

Cyan: Calibrating Yellow: Between Readings

Accessing and Storing Data

Data collected is automatically stored on the microSD card. The Rayo S600 must be powered off when the microSD card is inserted or removed to avoid corrupting the card, rendering it incapable of recording future data. Data stored on the microSD card can be accessed by directly connecting the Rayo S600 to your computer using the provided USB cable, any commercially available microSD card adapter, or wireless transfer through Cerillo’s Canopy.

All Cerillo products are for research use only and are not intended for use in diagnostic procedures.