



uSPECTRUM PC Software

Download File • 下載檔案 • ファイルをダウンロードする
www.uprtek.com



uSPECTRUM PAR



* To ensure your warranty validation, please place your agent's stamp in the box and fill in the purchase date. If the agent stamp and purchase date cannot be supplied, the warranty period will be based on the manufacturing date of the product.

* 為確保您的權益，請要求經銷商蓋上店章及填寫購買日期；未蓋店章與購買日期者，則以出廠日期為依據。

* お客様の権利を確保するために、販売店に店の印章または、購入日を記入することを依頼してください。販売店の印章または購入日のない場合、製造日に基とづいて取り扱いたします。

* Um Ihre Rechte zu gewährleisten, bitten Sie den Vertriebs Händler einen Geschäftsstempel aufzudrücken und das Kaufdatum einzutragen. Ohne Kaufdatum und ohne aufgebrachten Geschäftsstempel wird das Ausgabedatum als betrachtet.

* Pour assurer la validité de la garantie de votre produit, veuillez demander à votre revendeur d'appliquer son tampon et d'indiquer la date d'achat. Si ces informations ne sont pas indiquées, la durée de la garantie sera basée sur la date de fabrication.

* Per garantire la convalida della garanzia, inserire il timbro dell'agente nella casella e compilare la data di acquisto. Se non è possibile fornire il timbro dell'agente e la data di acquisto, il periodo di garanzia si baserà sulla data di fabbricazione del prodotto.

* Para garantizar la validación de la garantía, coloque el sello del agente en la caja y rellene la fecha de compra. Si el sello del agente y la fecha de compra no se pueden suministrar, el periodo de garantía se basará en la fecha de fabricación del producto.

Original / Authorized Agent Stamp

Product Serial Number : _____

Purchase Date : _____

52-72-00027-0000

UPRtek 群耀科技股份有限公司
United Power Research Technology Corporation

TEL : +886-37-580-885

FAX : +886-37-580-398

Website : www.uprtek.com

Address : No.38, Keyi St., Zhunan Township, Miaoli County 35059, Taiwan, R.O.C



PG200N

• SPECTRAL PAR METER •



Umweltanalytische
Produkte GmbH

Büro Cottbus

Taubenstrasse 4

D - 03046 Cottbus

vertrieb@upgmhb.com

Fon: +49 355 485 54-0

Fax: +49 355 485 54-15

www.upgmhb.com

User Manual

NCC Warning Statement

Article 12

Without permission, any company, firm or user shall not alter the frequency, increase the power, or change the characteristics and functions of the original design of the certified lower power frequency electric machinery.

Article 14

The application of low power frequency electric machineries shall not affect the navigation safety nor interfere a legal communication, if an interference is found, the service will be suspended until improvement is made and the interference no longer exists.

FCC Warning Statement

a. for FCC 15b devices (15.105)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

b. FCC Part 15.21 information for user

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

c. FCC Part 15.19

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Warning Statement

CC RF Radiation Exposure Statement

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Contents

| | | |
|---|---|----|
| 1 | 1.1 Package Contents | 2 |
| | 1.2 Product Introduction..... | 3 |
| | 1.3 Annual Product Calibration..... | 4 |
| | 1.4 Product Notes and Precautions | 4 |
| 2 | 2.1 Preparing Before Use..... | 5 |
| | 2.2 Basic Measurement..... | 11 |
| 3 | 3.1 Connecting with mobile device..... | 13 |
| | 3.2 Connecting to uSPECTRUM..... | 14 |



To get more information related to operation, firmware upgrade and warranty terms; online application for correction and repair service, please visit www.uprtek.com to download the complete version.

1.1 Package Contents

Please ensure the following are included in the package of this product: In case of any flaw and/or loss please call the dealer or this Company for help.



Case



PG200N
Spectral PAR Meter



User Manual



Power Adaptor



USB Cable



3M Type-C USB Cable
(remote measurement)



Protection Bag



Sensor Head Stand Bracket



Screen Wiper



MicroSD Card



Screwdriver

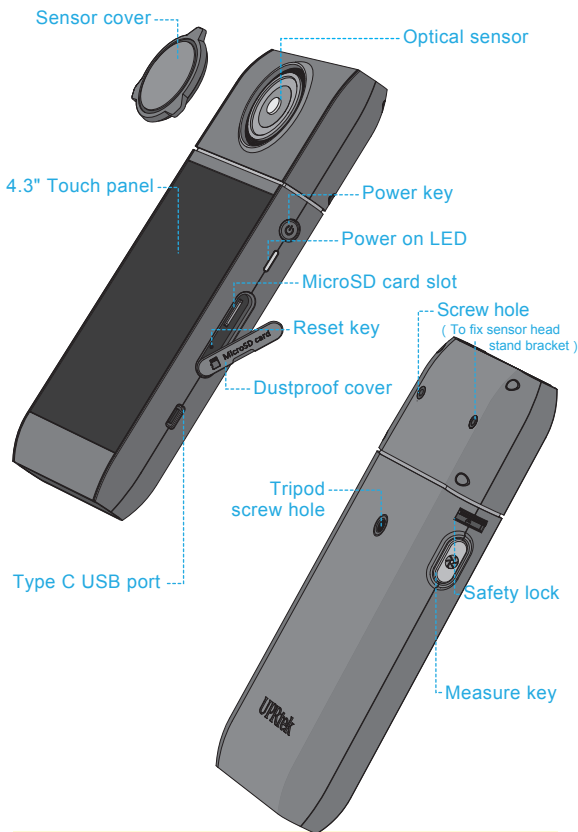


Screws



Warranty Card

1.2 Product Introduction



1. If the system crashes, press the power key for 3 seconds to turn off the system.
2. If the problem still can't be fixed, use a pen to press the reset key to turn off the system.

1.3 Annual Product Calibration

As the product is a high-precision instrument, please use it cautiously. To ensure the accuracy of measurements, annual calibration is recommended. Please consult the agent or the customer service department for the calibration service.

1.4 Product Notes and Precautions

1. PG200N Spectrometer is a high-precision instrument. Please unpack with care. Any vibration or collision may cause instrument damage. If the product doesn't work normally or needs repair, don't attempt any repairs. All repairs must be performed by the authorized customer service agent.
2. Most LCD screens have a very small and inconsequential defective pixel rate (usually less than 0.1%). This results in occasional pinpoints of white or other colors but will not affect the accuracy of measurements.



Precautions / Warnings

Please read the following precautions to avoid fire, excessive heat, chemical leakage and explosion :

- Do not disassemble or modify the battery.
- Do not expose the battery to heat (fire) or water/moisture.
- When disposing of used/old batteries, wrap with insulation tape to shield the battery from electrical contact with metallic objects, which might ignite a fire or explosion.
- If the unit is plugged into the power adapter and the battery seems to be overheating, or if there is smoke or peculiar odors emanating from the unit, unplug immediately to avoid the possibility of fire.
- Do not touch the cables if there is heat emanating from or near the cables as melted or deformed cables could expose wiring and result in burns or electric shock.
- Do not use cloth or anything to wrap or cover the equipment while charging – this could cause the unit to overheat, melting the casing or causing fire.
- If the unit is accidentally immersed in water, or if moisture has seeped inside, or metal objects have dropped into the casing, immediately remove the battery to avoid fire or electric shock.
- Do not operate or store the battery in high-temperature environments. This will cause battery leakage and/or shorten the life of the battery.
- Do not use paint thinner, benzene, or other organic solvents to clean the equipment. This may damage the exterior finish or touch screen and may even ignite a fire.

2.1 Preparing Before Use

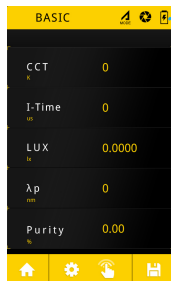
Charging method

Connect the charger and USB cable to the Type C USB port of this product to start charging.

1. While powered OFF, the red indicator will light up during battery charging; the red indicator will go off once the spectrometer is fully charged.



2. A flash symbol displays at upper right corner of the LCD screen during charging and disappears after it is fully charged.



1. Charge the battery for 6 hours before using it for the first time.
2. To prevent power outage during use, check whether the red light has turned off (fully charged) according to the instructions given on the next page (Item1). Once the spectrometer is turned on, keep an eye on the battery charge indicator at the upper right corner of screen.
3. If your battery drains quickly after being fully charged, it needs to be replaced. Please contact your dealer.
4. Battery life varies with battery age and usage. A new battery typically lasts about 5 hours after a full charge.

2.1 Preparing Before Use

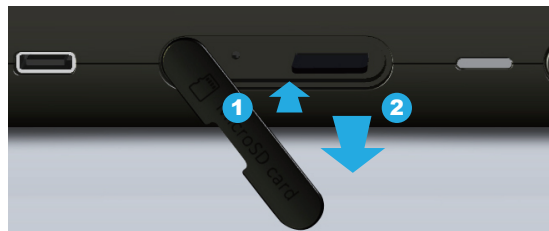
Installing MicroSD card

Measurement data may be saved in Excel (xls) format and image data (spectrum and chromaticity coordinates diagram) may be saved in JPG format in the MicroSD card with capacity at 1GB or more.

Open the dustproof cover and insert the MicroSD card in the specified direction.



Press to remove MicroSD card

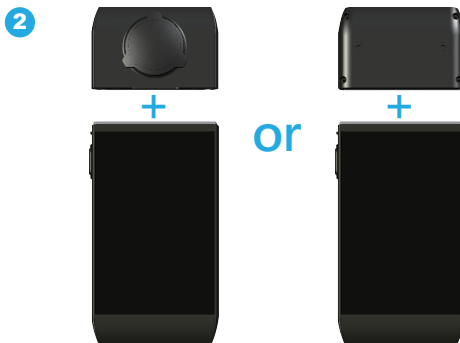


1. The SD card features a card latch design to prevent it from coming loose. You may feel that the SD card is stuck when it is inserted in or removed. In this case, pull or push it a little harder to get it in place or removed. To remove SD card: Press it as shown in step ① and pull it out after ejecting as shown in step ②.

2.1 Preparing Before Use

Connect optical sensor to console

To install the sensor head in the opposite direction, switch off the power before doing so. First, push the safety lock down to the unlock status as shown in the figure below to remove the Sensor head from the body, turn it in the opposite direction and then insert it into the body again and push the safety lock upwards. Switch on the power again after correctly installed.



2.1 Preparing Before Use

As shown in the figure below, when using the USB TypeC cable to perform long distant measurements, please switch off the power first before connect to the cable and tighten the screws of the cable connected to the sensor head.



1. Optical sensor and console are paired before shipment to you. DO NOT use either of the two with any other PG200N Spectrometer. If you have more than one PG200N Spectrometer, DO NOT swap optical sensor between instruments.
2. Power off the spectrometer before installing or uninstalling optical sensor from console.
3. Run background calibration after turning power on and before taking measurements.

2.1 Preparing Before Use

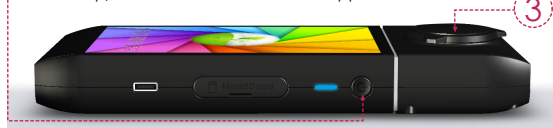


Precautions on optical sensor installation

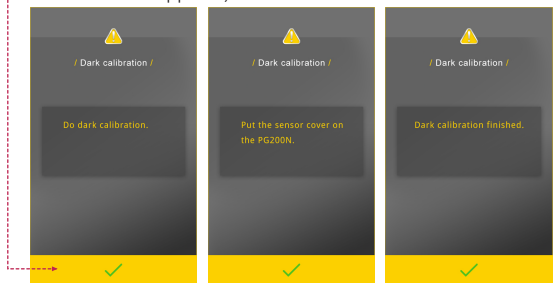
Make sure the optical sensor latch is well connected to console.

Dark calibration

1 Press the power button and the blue indicator will light up, and the boot screen will appear on the screen.



2 Perform dark calibration by following the steps displayed on the screen. When the "Dark calibration" dialog window appears, select the "✓" OK button.



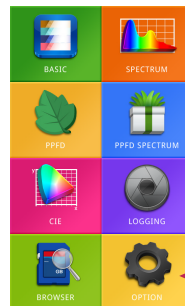
3 Confirm that the cap is covered and then select the "✓" OK button.

Once the message "Dark calibration finished" appears, click "✓" OK and you will be returned to the main menu.

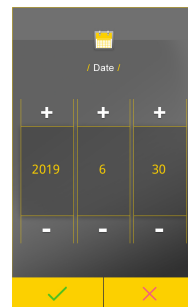
2.1 Preparing Before Use

Set up date and time

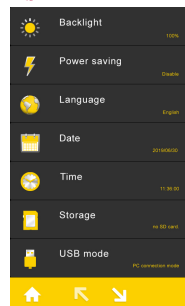
Set up date and time before taking any measurements.



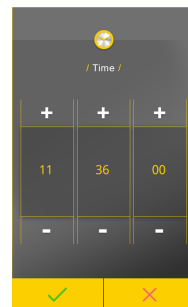
Click "OPTION" icon.



2 Once date is set, press "✓" Yes to exit to setup option page.



Press "Date" and "Time" to update settings.



4 Once time is set, press "✓" Yes to exit to setup option page.

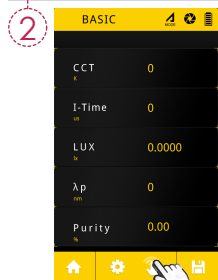
2.2 Basic Measurement

Measurement

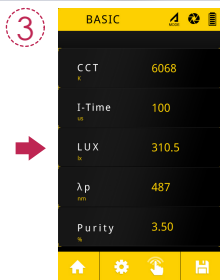
Click "BASIC" mode to enter measurement page.



1 Point optical sensor to light source to be tested.



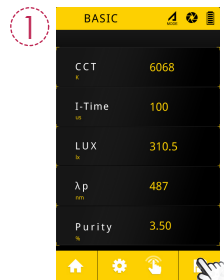
Press the measurement button at the bottom center of the LCD screen or the measurement key on the left hand side of the spectrometer to take a measurement (You can press measurement key at both sides).



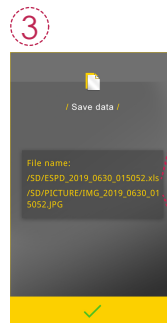
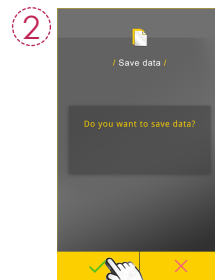
This product beeps once after measurement is done and displays results on screen.

2.2 Basic Measurement

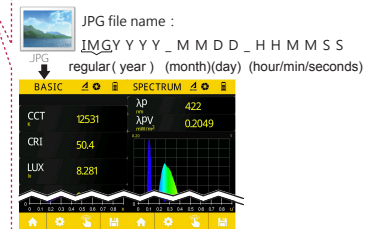
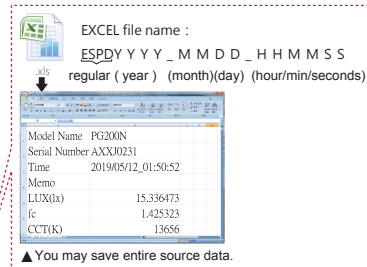
Save measurement data



Press the "Save file" button at lower right corner.



Measurement data is now saved in the MicroSD card. You may note down file name if necessary.

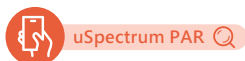


▲ You may save measurement screen in "BASIC mode", "SPECTRUM mode", "PPFD mode", "PPFD SPECTRUM mode" and "CIE 1931.1976 mode".

3.1 Connecting with mobile device

1 APP Installation

Download and install uSpectrum PAR on the mobile device.

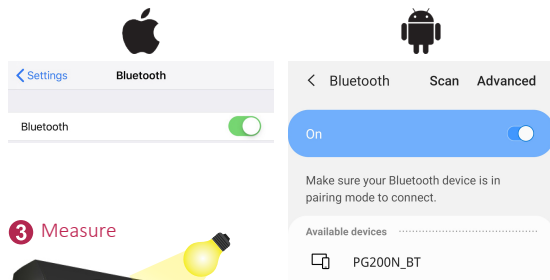


2 iOS system :

Turn on "Bluetooth" in Settings on the mobile device (Do not connect to PG200N_BT)

Android system :

Turn on "Bluetooth" in Settings on the mobile device and connect to PG200N_BT.



3 Measure

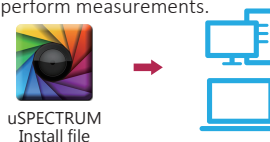


1. Device connection symbol: Blue→Connected, Red→Not connected.
2. When connection failed, select the device connection symbol to perform connection again.

3.2 Connecting to uSPECTRUM

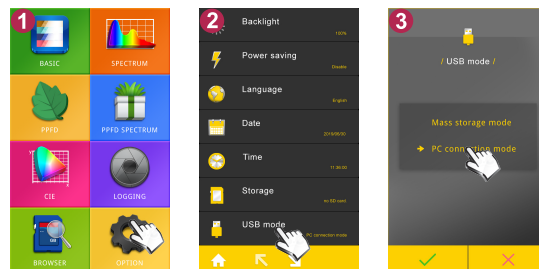
Install uSPECTRUM PC software

Please visit the UPRtek official website at <http://www.uprtek.com>; download the file and install it on your computer system to connect the computer and PG200N through USB and run uSpectrum to perform measurements.



Set USB PC connection mode

1. Select "OPTION".
2. Select "USB mode".
3. Select "PC connection" and press "✓" Yes.



Measure

