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› [GOYOJO HP320 Portable Spectrometer User Manual](#)

GOYOJO HP320

GOYOJO HP320 Portable Spectrometer User Manual

Model: HP320 | Brand: GOYOJO

1. INTRODUCTION

The GOYOJO HP320 is an intelligent wireless spectral power meter designed for light source color testing. This handheld device integrates advanced micro spectrometer technology, embedded operating systems, and microcomputer technology to provide efficient and accurate measurements. It is suitable for a wide range of applications, from on-site commercial and health lighting assessments to laboratory research and quality control.

This manual provides essential information for the safe and effective operation of your HP320 Portable Spectrometer. Please read it thoroughly before use and retain it for future reference.

HP300 series

Spectral color illuminometer Mini

Adopting high-speed AMR processors

High precision electronic CCD optical sensor



Image 1.1: The HP300 series, featuring the HP320 and HP330 models. The HP320 is on the left, displaying spectral data, while the HP330 is on the right, showing a color coordinate graph.

2. KEY FEATURES

- **Advanced Technology Integration:** Combines micro spectrometer technology with embedded operating systems and microcomputer technology for high efficiency and accuracy.
- **Convenient Field Testing:** Equipped with a 3.5-inch IPS touch screen for easy on-site operation and consistent parameter analysis.
- **Versatile Applications:** Suitable for commercial, health, home, building lighting, laboratory research, product development, quality control, and online monitoring.
- **Flexible Operation:** Supports USB communication and multi-platform operation via PC software or the integrated IPS touch screen.
- **High-Precision Measurement:** Features a TCD1254 CCD detector, enhanced coating grating, 16-bit high-speed AD sampling, and a high-precision optical path.

- **Comprehensive Parameters:** Measures color temperature (K), illuminance (lx), color tolerance (SDCM), Color index (Ra), color coordinate, wavelength (nm), color purity, light and dark visual ratio (S/P), and transmittance.
- **Compact and Portable:** Slim body design (15mm) for easy portability.

HP320

Wavelength Range: 380-780nm

Photometric Linearity: $\pm 0.3\%$

Spectral Resolution of: $\pm 0.2\text{nm}$

Built-in 2500mAh Lithium Battery

Connect Phone and Computer

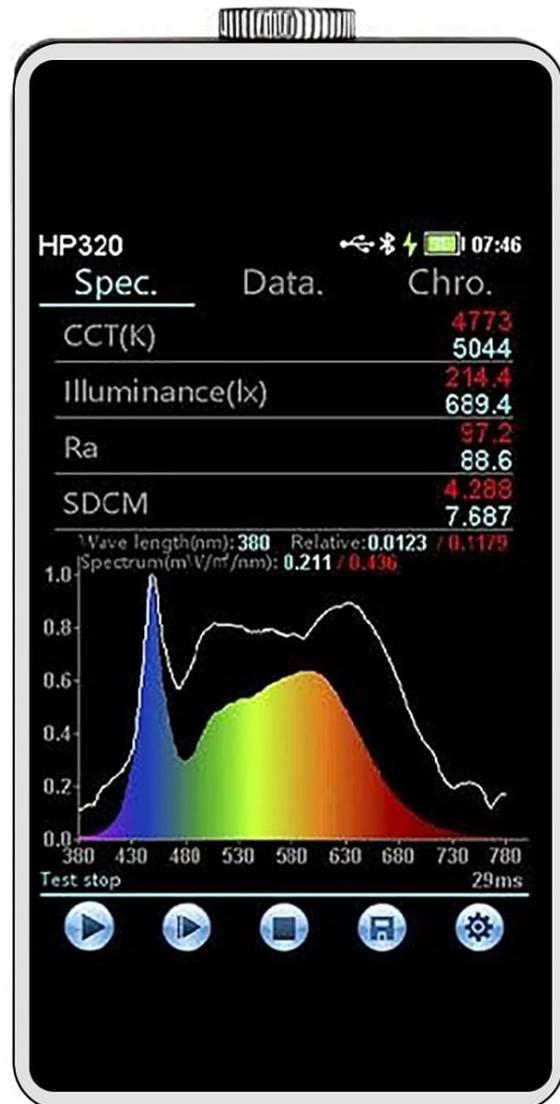


Image 2.1: The HP320 device highlighting its key specifications and features, including wavelength range, photometric linearity, spectral resolution, battery capacity, and connectivity options.

3. SETUP

3.1 Unpacking

Carefully remove the HP320 spectrometer and all accessories from the packaging. Verify that all components listed in the packing list are present and undamaged. If any items are missing or damaged, contact your supplier immediately.

3.2 Charging the Device

The HP320 is equipped with a built-in lithium battery. Before initial use, fully charge the device using the provided

charging adapter and Type-C data cable.

1. Connect the Type-C data cable to the charging port on the HP320.
2. Connect the other end of the cable to the charging adapter.
3. Plug the charging adapter into a standard power outlet.
4. The device's screen will indicate the charging status. Allow the device to charge until the battery indicator shows a full charge.

3.3 Powering On/Off

- **To Power On:** Press and hold the power button (location typically on the side or top of the device) for a few seconds until the screen illuminates.
- **To Power Off:** Press and hold the power button until a power-off prompt appears on the screen, then confirm your selection. Alternatively, a short press might bring up a menu with power options.

3.4 Initial Connection (Optional)

The HP320 supports connection to a PC via USB for data analysis and control, and to Android mobile devices for data export.

- **PC Connection:** Connect the device to your computer using the Type-C data cable. Install the provided PC software (if applicable) to access advanced analysis features.
- **Mobile Connection:** For Android devices, ensure the relevant application is installed. Connect the HP320 to your mobile device for data transfer and viewing.

4. OPERATING INSTRUCTIONS

The HP320 features a 3.5-inch IPS touch screen for intuitive operation. Navigation and settings are primarily controlled through the touch interface.

4.1 Basic Measurement

1. Power on the device as described in Section 3.3.
2. Navigate to the main measurement interface using the touch screen.
3. Position the HP320's optical sensor towards the light source you wish to measure. Ensure the sensor is clean and unobstructed.
4. Initiate a measurement by tapping the "Measure" or "Start" button on the screen.
5. The device will display various parameters such as color temperature (K), illuminance (lx), color index (Ra), and spectral distribution.

Professional data is clear at a glance

Easy mastery of core technology

Collaborate with PC software to efficiently analyze and process test data
Has extremely high measurement linearity and accuracy



Image 4.1: The HP320 screen showing professional data, including spectral power distribution, CIE color coordinates, and a list of measured parameters for clear analysis.

4.2 Data Analysis and Processing

The HP320 allows for efficient analysis and processing of data directly on the device or through connected software.

- **On-Device Review:** Use the touch screen to navigate through measurement history and view detailed reports.
- **PC Software:** Connect to a computer to utilize the dedicated PC software for in-depth analysis, comparative testing, timing testing, wavelength adjustment, and compensation for test results.

4.3 Data Export

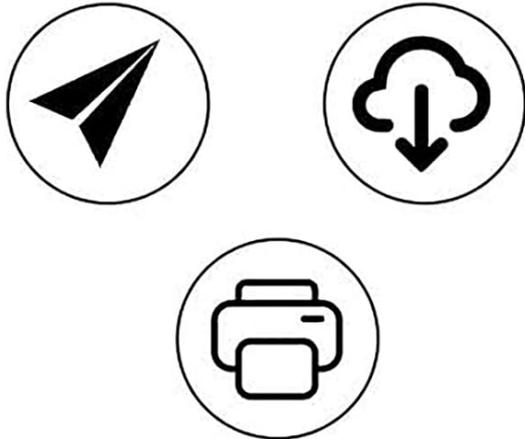
Test data can be exported directly as PDF reports for easy sharing and documentation.

1. After completing measurements, navigate to the data export option on the device.
2. Select the desired data or reports for export.
3. Choose the export method: direct PDF export to a connected computer or mobile device (Android only).

4. Confirm the export. The device will generate and transfer the PDF report.

Test Data PDF Direct Export

Check the test report in one step



*-Computer compatible for
Mac/Windows systems*

*-The mobile end is temporarily only
applicable to the Android system*

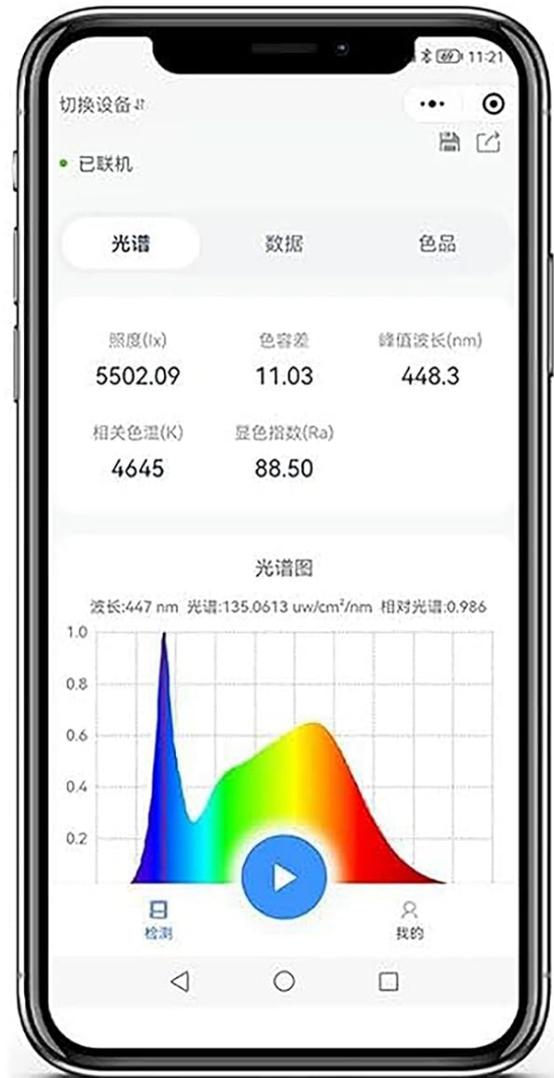


Image 4.2: A mobile phone screen showing a spectral measurement report generated by the HP320, with icons for sharing, downloading, and printing the data.

Test Data PDF Direct Export

Check the test report in one step

No need to install software, plug and play on mobile computers, one click sharing, printing test reports



Computer compatible for Mac/Windows systems
The mobile end is temporarily only applicable to the Android system

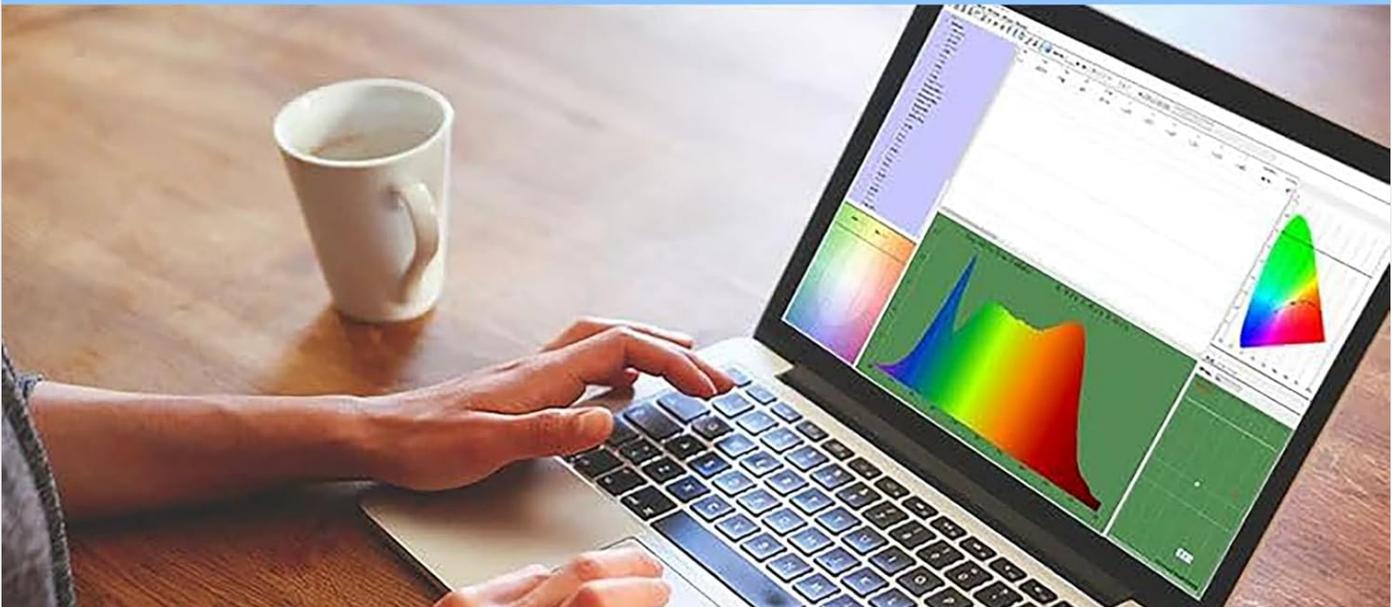


Image 4.3: A laptop screen showing detailed spectral data analysis from the HP320, illustrating the device's compatibility with both Mac and Windows operating systems for data processing.

5. MAINTENANCE

5.1 Cleaning

- Gently wipe the device's exterior with a soft, dry cloth.
- For the optical sensor, use a lens cleaning cloth or a soft brush to remove dust. Avoid touching the sensor directly with fingers.
- Do not use abrasive cleaners, solvents, or harsh chemicals, as these can damage the device.

5.2 Storage

When not in use, store the HP320 in a clean, dry environment.

- **Temperature:** Store at temperatures below 50°C (122°F).

- **Humidity:** Store in environments with humidity less than 70% RH.
- Avoid direct sunlight, extreme temperatures, and high humidity.
- Keep the device in its protective case (if provided) to prevent physical damage.

5.3 Battery Care

- To prolong battery life, avoid fully discharging the battery frequently.
- If storing the device for an extended period, charge it to approximately 50% every few months.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with the HP320 spectrometer. If you experience a problem not listed here, or if the suggested solutions do not resolve the issue, please contact customer support.

Problem	Possible Cause	Solution
Device does not power on.	Battery is discharged.	Connect the device to the charger and allow it to charge for at least 30 minutes before attempting to power on again.
Inaccurate readings.	Dirty optical sensor; improper measurement distance/angle; device not calibrated.	Clean the optical sensor. Ensure correct positioning relative to the light source. Perform a calibration if available in the device settings.
Cannot connect to PC/Mobile.	Incorrect cable; driver issues (PC); app not installed/updated (mobile); incompatible OS (mobile).	Ensure you are using the correct Type-C data cable. For PC, check device manager for driver issues. For mobile, verify the app is installed and updated, and confirm your device is Android.
Touch screen unresponsive.	Temporary software glitch; screen damage.	Restart the device. If the issue persists, contact customer support.

7. SPECIFICATIONS

Parameter	Detail
Model	HP320
Detector	TCD1254 CCD
Sampling	16-bit high-speed AD sampling
Wavelength Range	380-780nm
Spectral Resolution	0.2nm
Photometric Linearity	0.3%
Display	3.5-inch IPS touch screen
Connectivity	USB (PC), Wireless (Android mobile)
Power Source	Built-in Lithium Battery, Type-C charging

Parameter	Detail
Operating Environment	Temperature: -10°C to +40°C (14°F to 104°F) Humidity: 0-70% RH
Storage Environment	Temperature: <50°C (122°F) Humidity: <70% RH



Image 7.1: The HP320's compact and lightweight design, highlighting its slim profile for easy portability.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the documentation included with your purchase or contact GOYOJO customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.

GOYOJO Customer Service: Please visit the official GOYOJO website or refer to the contact information provided in

your product packaging.

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