

RP 460

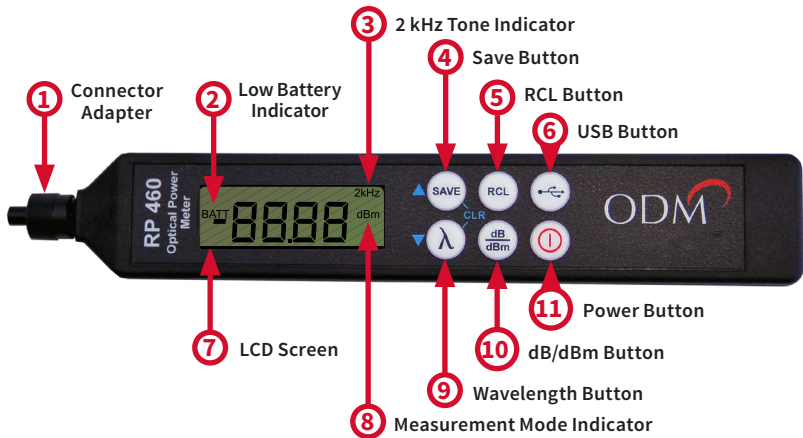
Quick Start Guide

Optical Power Meter

INFORMATION CONTAINED IN THIS MANUAL IS BELIEVED TO BE ACCURATE AND RELIABLE, HOWEVER, NO RESPONSIBILITY IS ASSUMED BY RIPLEY ODM FOR ITS USE NOR FOR ANY INFRINGEMENTS OF PATENTS OR OTHER RIGHTS OF THIRD PARTIES THAT MAY RESULT FROM ITS USE. NO LICENSE IS GRANTED BY IMPLICATION OR OTHERWISE UNDER ANY PATENT RIGHTS OF RIPLEY ODM.

THE INFORMATION CONTAINED IN THE PUBLICATION IS SUBJECT TO CHANGE WITHOUT NOTICE.

RIPLEY ODM LLC • 171 DANIEL WEBSTER HWY, UNIT 1 • BELMONT, NH 03220 USA
P: (603) 524-8350 E: TECH.SUPPORT@ODM.RIPLEY-TOOLS.COM W: WWW.RIPLEY-TOOLS.COM



1. Connector Adapter - Interchangeable

The RP 460 comes with a 2.5mm universal adapter. Additional adapters are available from Ripley. Refer to page 5 for more information.

2. Low Battery Indicator

“BATT” will appear on the LCD screen when the CR2 3V battery needs to be recharged or replaced, depending on the battery type.

3. 2 kHz Tone Indicator

A beep will sound and show “2 kHz” on the LCD once a 2 kHz modulated signal is recognized.

4. Save Button

Over 4000 readings may be saved on the RP 460. Each time the save button is pressed, the current reading will be saved to internal storage. The display flashes the indexed location where the reading has been saved.

5. RCL Button

Pressing the RCL button toggles through the saved readings on the device. The indexed location, wavelength, and reading will flash on-screen.

6. USB Button

When the RP 460 is connected via USB to a computer running ODM® brand software, pressing this button will transfer all saved data points into the software for reporting.

7. LCD Screen

The screen displays the measured value, selected wavelength, and status indicators.

8. Measurement Mode Indicator - dB/dBm

dB is a loss measurement. dBm is an absolute power measurement.

9. Wavelength Button

Hold the button to switch the RP 460 between the 850, 1300, 1310, 1490, 1550, 1611, and 1625 nm wavelengths. Press the button once to immediately display the current wavelength. The selected wavelength will briefly appear on-screen every 8 seconds.

10. dB/dBm Button

Press the button to toggle between dB and dBm modes. Hold the button down when in dBm mode to set a reference on the RP 460.

11. Power Button

Press the button once to turn the RP 450 on. Press once again to turn the RP 460 off. The RP 460 will automatically turn off after 5 minutes if inactive.

Important Safety Information

⚠ WARNING!

Read and understand all of the instructions and safety information in this manual before operating this tool.

⚠ ELECTRIC SHOCK HAZARD

Contact with live circuits could result in severe injury or death. Pay attention to proper battery polarity. Do not mix battery types or manufacturers. Do not open the unit. Use this unit only for its intended purpose as outlined in this guide.

⚠ LASER HAZARD

Avoid eye exposure to open fiber connectors and interfaces when working with fiber systems. They may be connected to a live laser source. Do not look into the output port of a laser source. Point fiber endfaces toward non-reflective surfaces to prevent reflection of laser.

⚠ ITEM DAMAGE HAZARD

Do not leave the item in direct sunlight or near heat sources, submerge in water, or subject the unit to strong impact. Cover the fiber interface with the flip-cap when the unit is not in use.

⚠ DO NOT THROW THIS PRODUCT AWAY

Contact your local recycling station to dispose of properly.



Function Tips

Audible Alerts

The RP 460 emits an audible beep each time a major function is used. To disable most beeps, ensure that the unit is OFF. Press and hold the Save button, and turn the unit ON while holding the Save button. Perform the same procedure to turn the audible beeps back on.

Continuous Usage Mode

The RP 460 turns off automatically if no buttons are pressed for 5 minutes. To bypass this feature, hold the Power button for 3 seconds when powering on. A series of beeps will indicate that the unit is now in Continuous Mode and will not turn off automatically.

Reviewing Saved Readings

While in the RCL mode, use the Save and Wavelength buttons to navigate through the saved readings on the device. Each reading has a “location” indicated by a 4-digit number. Note the blue arrows on the Save and Wavelength buttons. The data cycles at either end. Scrolling “up” from the last data point will cycle back to the first location (0001) and vice versa.

Deleting Saved Readings

Press and hold the Save and Wavelength buttons simultaneously to delete all saved readings in the RP 460's internal memory. The screen flashes 0000 to indicate that the memory is empty.

Non-Volatile Memory

The RP 460 uses a non-volatile memory system. Data is not lost if the unit is turned off while testing, if the battery is removed, or if the unit is stored for long periods of time.

USB Download

Before transferring data from the RP 460 to the computer, download and install the ODM® brand software, available online at www.ripley-tools.com/downloads.

1. Plug the RP 460 into the computer using the included USB cable. If this is the first time it has been plugged in, wait at least ten seconds for the drivers to install.
2. Place the ODM® brand software into Dump/Sync mode by navigating to Settings > Data Mode > Dump Mode.
3. Press the USB button on the RP 460 to dump/sync all data points. The data from the RP 460 appears in the box on the left side of the window.
4. Fill out the fields on the right side of the window (Customer, User, Test Site, etc).
5. Navigate to Settings > Report Settings to identify a minimum and maximum value for the PASS/FAIL functionality. Choose a color code scheme from this window, if necessary.
6. To create the final report, click File > Export to Excel.

Data Streaming

The RP 460 can be used in a live streaming mode with the ODM® brand software.

1. With the RP 460 plugged in via USB, place the ODM® brand software into Active Mode by navigating to Settings > Data Mode > Active Mode.
2. Click the Save button on-screen to save the live reading displayed in the window. Save as many readings as needed.
3. To create the final report, click File > Export to Excel.

Maintenance

Unpacking & Inspection

The RP 460 is supplied with a soft carry case, 2.5 mm adapter installed on the unit, 3.0V CR2 battery, USB cable, and an instruction card. Contact Ripley immediately if any part of the unit or packaging is damaged, or otherwise unsatisfactory.

Low Battery

The RP 460 provides over 1000 operations under normal conditions. When the BATT indicator is shown on the device screen, the CR2 battery should be recharged or replaced, depending on the battery type.

Optical Connector Interface

The RP 460 is equipped with a universal connector adapter that is compatible with many popular style connectors. The connector adapter interface should be kept covered and protected from contamination. Care must be taken to avoid objects that may damage the glass surface of the detector mount. If scratches or breaks occur on the surface, please contact Ripley for proper service.

Calibration

All Ripley ODM® brand products include a 2-year warranty. Ripley recommends recalibration every two years to ensure adherence to NIST measurement standards. The first recalibration is free within the warranty period. Contact Ripley Tools for return information.

Specifications

Optical Power Meter

DETECTOR TYPE	-02: InGaAs / -04: Filtered InGaAs
MEASUREMENT RANGE	-02: +6 to -70 dBm / -04: +23 to -45 dBm
WAVELENGTH RANGE	850 nm to 1650 nm
SELECTABLE WAVELENGTHS	850 / 1300 / 1310 / 1490 / 1550 / 1611 / 1625 nm
RESOLUTION	0.01 dB
ABSOLUTE ACCURACY	± 0.25 dB (23° C +/- 2° C at 0 dBm)
OPTICAL INTERFACE	Universal 2.5mm (Additional Adapters Available)
DISPLAY	LCD
TONE ID	2 kHz
STORAGE	4000+ Measurements
DATA TRANSFER	Mini-USB (Live Readings or Data Dump)
POWER	Push Button Toggle / Auto OFF
OPERATING TEMPERATURE	-10° C to +55° C
STORAGE TEMPERATURE	-30° C to +70° C
BATTERY	CR2
DIMENSIONS	6.1" x 0.94" x 0.75" (15.5 x 2.38 x 1.9 cm)
WEIGHT	3 oz (85.4 g)

Power Meter Accessories

Optical Power Meter Adapters

PART NUMBER	DESCRIPTION
AC 020	2.5 mm Universal Adapter
AC 021	1.25 mm Universal Adapter
AC 026	SC Adapter
AC 027	ST Adapter
AC 028	FC Adapter
AC 029	LC Adapter

Patch Cord & Battery Accessories

PART NUMBER	DESCRIPTION
AC 500	SM SC-LC – 1m Simplex
AC 505	SM SC-ASC – 1m Simplex
AC 501	SM SC-SC – 1m Simplex
AC 502	SM LC-LC – 1m Simplex
AC 600	SC-SC – Simplex Bulkhead
AC 601	LC-LC – Simplex Bulkhead
AC 602	LC-LC – Duplex Bulkhead
AC 300	CR2 Non-Chargeable Battery (Pack of 5)
AC 310	CR2 Rechargeable Battery Charger w/ 2 Batteries
AC 311	CR2 Non-Chargeable Battery (Pack of 1)
AC 312	CR2 Rechargeable Battery (Pack of 1)

Certifications

This product conforms with health, safety, and environmental protection standards for products sold within the European Economic Area (EEA). This product was tested by an ISO 17025 accredited laboratory and complies with the following CE directives and standards listed below:



Directives:
Electromagnetic Compatibility (2014/30/EU)

Standards:
EMC: EN 61326-1:2013 Industrial
Safety: EN/IEC61010-1:2010+A1:2016



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.

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.

Contact Information

Contact us with any questions pertaining to this or any other ODM product.



Call Us:
(603) 524-8350



Email Us:
tech.support@odm.ripley-tools.com



Visit Us Online: www.ripley-tools.com/odm

Warranty Information

Ripley ODM® brand test equipment is furnished with a 2 year warranty extending from the original date of purchase. Contact Ripley Tools for information on recalibration and repair of test equipment. Ripley makes every effort to ensure that all information in this data sheet is accurate. Ripley Tools assumes no responsibility for any errors or omissions and reserves the right to modify this document at any time without notice. Please contact Ripley ODM® brand specialists for pricing and availability of equipment.