

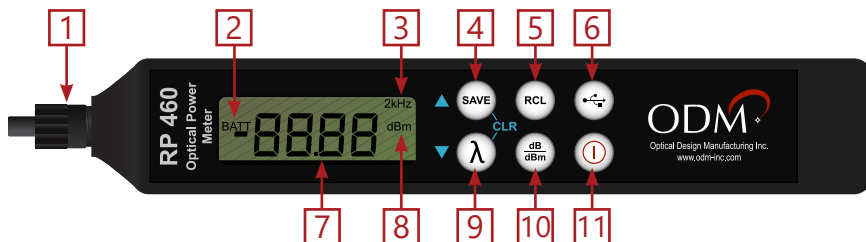


A RIPLEY® BRAND

RP 460 Optical Power Meter

Quick-Start Guide

Device Overview



1. **Connector Adapter - Interchangeable**

The RP 460 comes with a 2.5mm universal adapter. Contact ODM for additional adapter options.

2. **Low Battery Indicator**

"BATT" will appear on the LCD when the CR2 3V battery needs to be replaced.

3. **2kHz Tone Indicator**

The RP 460 will beep and show "2kHz" on the LCD when a 2kHz 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 this button allows the user to toggle through the saved readings on the RP 460. The indexed location, wavelength, and reading will flash onscreen.

6. **USB Button**

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

7. **LCD Screen**

This screen displays the measured value, currently-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 this button to switch the RP 460 between the 850, 1300, 1310, 1490, 1550, 1611, and 1625nm wavelengths. Press the button once to immediately display the current wavelength. The currently-selected wavelength will briefly appear onscreen every 8 seconds.

10. **dB/dBm Button**

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

11. **Power Button**

Press this button once to turn the RP 450 on. Press once again to turn the RP 460 off. The RP 460 is set to turn off after 5 minutes.



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.



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.



Electric Shock Hazard

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 document.



Damage to Item Hazard

Do not leave item in direct sunlight or near heat sources, submerge in water, or subject unit to strong impact.

Cover the fiber interface with the flip-cap when 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 will emit an audible beep each time a major function is used. To disable most beeps, start with the unit OFF. Press and hold the Save button, then 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 will turn 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: it 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, so going "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 internal memory. The screen will flash 0000 to indicate that the memory is empty.

Non-Volatile Memory

The RP 460 uses a non-volatile memory system. Data will not be 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 OpTest software, available online at www.odm-inc.com

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 ten seconds for drivers to install.
2. Place the OpTest software into the 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 will appear in the box on the left side of the window.
4. Fill out the information 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 appropriate.
6. Create the final report by clicking File>Export to Excel.

Data Streaming

The RP 460 can be used in a live streaming mode with the OpTest software.

1. With the RP 460 plugged in via USB, place the OpTest software into Active mode by navigating to Settings>Data Mode>Active Mode.
2. Click the Save button onscreen to save the live reading displayed in the window. Save as many readings as needed.
3. Create the final report by clicking File>Export to Excel.

Maintenance

Unpacking and Inspection

The RP 450 comes supplied with a soft carry case, 2.5mm adapter (on the unit), 3.0V CR2 battery, USB cable, and instruction card. Contact ODM immediately if any part of the unit or packaging is damaged or otherwise unsatisfactory.

Low Battery

The RP 450 will provide over 1000 operations under normal conditions. When the BATT indicator is shown on the device screen, the CR2 battery should be replaced.

Optical Connector Interface

The RP 450 is equipped with a universal connector adapter which allows the interface of many popular style connectors. This connector adapter interface should be kept covered and protected from contamination. Care must be taken to avoid objects that could damage the glass surface of the detector mount. If scratches or breaks occur on the surface, please contact ODM for proper service.

Warranty and Calibration

All ODM products come with a 2 year warranty. ODM recommends recalibration every two years to ensure adherence to NIST measurement standards. The first recalibration is free within the warranty period. Contact ODM for return information.

Specifications

OPTICAL POWER METER	
Detector Type	-02: InGaAs / -04: Filtered InGaAs
Measurement Range	-02: +6 to -70dBm / -04: +23 to -45dBm
Wavelength Range	850nm to 1650nm
Selectable Wavelengths	850 / 1300 / 1310 / 1490 / 1550 / 1611 / 1625 nm
Resolution	0.01dB
Absolute Accuracy	± 0.25 dB
Optical Interface	Universal 2.5mm (Additional Adapters Available)
Display	LCD
Tone ID	2kHz
Storage	4000+ Measurements
Data Transfer	Mini-USB (Live Readings or Data Dump)
Power	Push Button Toggle / Auto OFF
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)

Certifications and Contact Information



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)

Low-Voltage (2014/35/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 us with any questions pertaining to this or any other ODM product.

Call 603-524-8350

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

Visit us online at www.odm-inc.com