

Procedure for Testing OWL Optical Power Meters For Proper Operation

WaveTester Series

Using WaveSource Multimode Light Sources



Optical Wavelength Laboratories

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USING OWL WAVESOURCE SERIES MULTIMODE SOURCES

LIGHT SOURCE MODEL NUMBERS:

WS-MDxx
WS-MDVxx
WS-MDSDxx

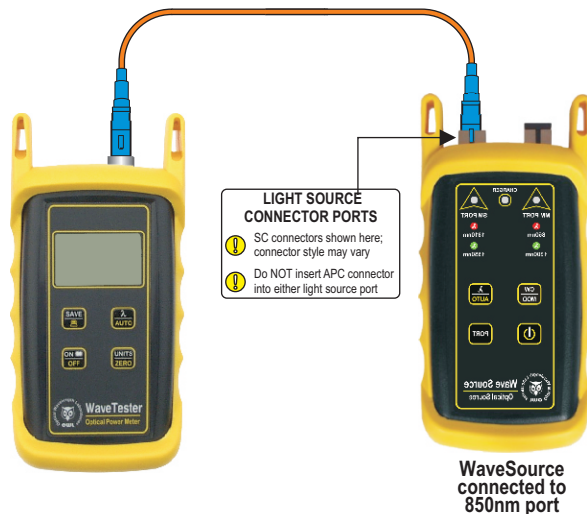
Testing WaveTester Series Optical Power Meters for Proper Operation

USING A WAVESOURCE MULTIMODE LIGHT SOURCE

NOTE: thoroughly clean and inspect all patch cord connectors before making any connection.

STEP 1 - Connect WaveTester and WaveSource

Connect the WaveTester and WaveSource together with an orange multimode patch cable as shown below.



STEP 2 - Power ON the WaveTester

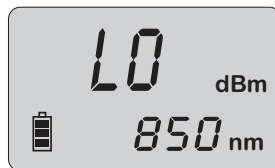
Press **ON/OFF** to power on the WaveTester.

After a few seconds, the WaveTester display should read 'LO', and will appear similar to the diagram shown at right.

NOTE: the wavelength and measurement units may be different from the display at right.

STEP 3 - Set the WaveTester to 'dBm'

Press **UNITS ZERO** on the WaveTester until the measurement units read 'dBm' as shown at right. You may need to press the button several times.



STEP 4 - Set WaveTester to 850nm

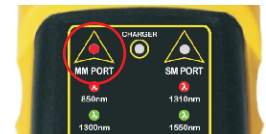
Press **AUTO** on the WaveTester until the wavelength display shows '850nm' as shown at right. You may need to press the button several times.



STEP 5 - Power ON the WaveSource

Press **POWER** to power on the WaveSource.

The 850nm indicator LED should now be lit as shown at right.



STEP 6 - Measure optical power

The power reading that appears on the WaveTester display will depend upon cable type. Consult the table below for a list of acceptable power readings.



Core Size	Acceptable Power Level	Replace at
62.5/125 μM	-19.0 to -21.0 dBm	-21.00 dBm
50/125 μM	-22.0 to -24.0 dBm	-24.00 dBm

NOTE: the following steps are only required if the optical power reading on the WaveTester is too low.

STEP 7 - Replace the patch cable

The easiest way to troubleshoot low power levels is to try another patch cable. Over time, patch cables can wear out or become damaged the more they are used for optical loss testing. Replacing the patch cable usually fixes the problem.

STEP 8 - Clean patch cables and optical ports

If the problem still exists after patch cable replacement, there may be some debris, such as dust, dirt, or finger oil, that has collected on the connector endface or in the equipment optical ports.

Thoroughly clean and inspect the optical ports of the WaveTester and the WaveSource, as well as the fiber connector endfaces, according to the brochures that have been included with this kit. Several cleaning cycles may be required.

If the power level is still too low, even after a thorough cleaning and inspection and patch cable replacement, contact OWL technical support at 262-473-0643 for more information.