

Procedure for Testing OWL Optical Power Meters For Proper Operation

WaveTester Series

Using Laser OWL Singlemode Laser Sources



Optical Wavelength Laboratories

Procedure for Testing WaveTester Series Optical Power Meters For Proper Operation

USING OWL LASER OWL SERIES SINGLEMODE SOURCES

LIGHT SOURCE MODEL NUMBERS:

LO2xx
LO2-15xx

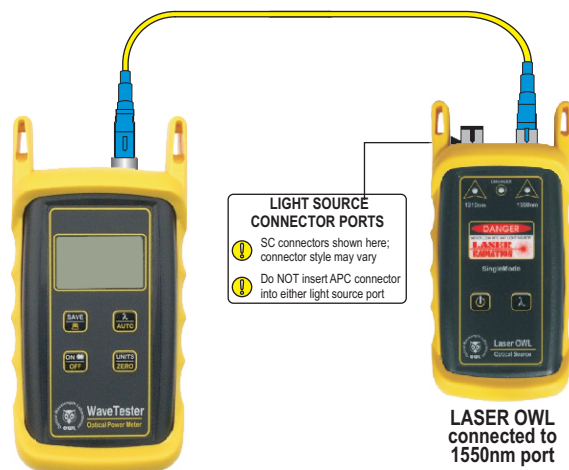
Testing WaveTester Series Optical Power Meters for Proper Operation

USING A LASER OWL SINGLEMODE LASER SOURCE

NOTE: it is recommended to thoroughly clean and inspect all patch cord connectors before making any connection.

STEP 1 - Connect WaveTester and Laser OWL

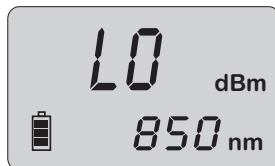
Connect the WaveTester and Laser OWL together with a yellow singlemode patch cable as shown below.



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 1550nm

Press **λ AUTO** on the WaveTester until the wavelength display shows '1550nm' as shown at right. You may need to press the button several times.



STEP 5 - Power ON the Laser OWL and set to 1550nm

Press **POWER** to power on the Laser OWL. The left-hand indicator LED should be lit by default.



Press **λ** to set the Laser OWL to 1550nm. The right-hand indicator LED will now be lit.

STEP 6 - Measure optical power

The power reading displayed on the WaveTester will probably not be exactly **-10.00 dBm** as shown at right, but should be fairly close.



Repeat this procedure for each additional patch cable that needs testing.

NOTE: the following steps are only required if the optical power reading on the WaveTester is **-11.00 dBm** or below.

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 Laser OWL, 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 below **-11.00 dBm**, even after a thorough cleaning and inspection and patch cable replacement, contact OWL technical support at 262-473-0643 for more information.