

# Procedure for Testing OWL Optical Power Meters For Proper Operation

ZOOM 2 Series

Using Laser OWL Singlemode Laser Sources



**Optical Wavelength Laboratories**

# Testing ZOOM 2 Series Optical Power Meters For Proper Operation

## USING OWL LASER OWL SERIES SINGLEMODE SOURCES

### LIGHT SOURCE MODEL NUMBERS:

LO2xx  
LO2-13xx

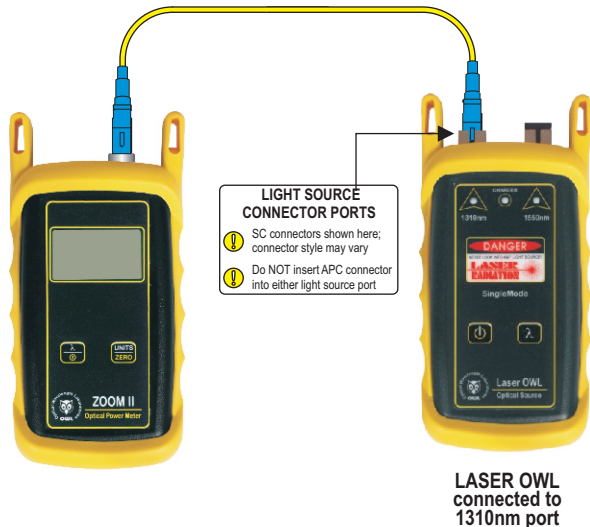
### Testing ZOOM 2 Series Optical Power Meters for Proper Operation

#### 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 ZOOM 2 and Laser OWL

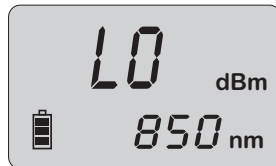
Connect the ZOOM 2 and Laser OWL together with a yellow singlemode patch cable as shown below.



#### STEP 2 - Power ON the ZOOM 2

Press **ON/OFF** to power on the ZOOM 2.

After a few seconds, the ZOOM 2 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 ZOOM 2 to 'dBm'

Press **UNITS ZERO** on the ZOOM 2 until the measurement units read 'dBm' as shown at right. You may need to press the button several times.



#### STEP 4 - Set ZOOM 2 to 1310nm

Press **λ AUTO** on the ZOOM 2 until the wavelength display shows '1310nm' as shown at right. You may need to press the button several times.



#### STEP 5 - Power ON the Laser OWL

Press **POWER** to power on the Laser OWL.

The 1310nm indicator LED should now be lit as shown at right.



#### STEP 6 - Measure optical power

The power reading displayed on the ZOOM 2 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 ZOOM 2 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 ZOOM 2 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.