

# Procedure for Testing OWL Optical Power Meters For Proper Operation

Fiber OWL 4 Series

Using Laser OWL Singlemode Laser Sources



**Optical Wavelength Laboratories**

# Procedure for Testing Fiber OWL 4 Series Optical Power Meters For Proper Operation

## USING OWL LASER OWL SERIES SINGLEMODE SOURCES

### LIGHT SOURCE MODEL NUMBERS:

LO2xx  
LO2-15xx

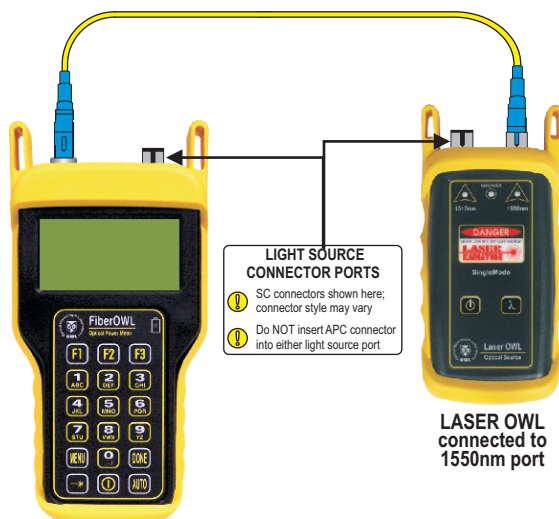
### Testing Fiber OWL 4 Series Optical Power Meters for Proper Operation

#### 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 Fiber OWL 4 and Laser OWL

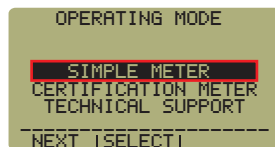
Connect the Fiber OWL 4 and Laser OWL together with a yellow singlemode patch cable as shown below.



#### STEP 2 - Power ON the Fiber OWL 4

Press **F1** to power on the Fiber OWL 4.

After a few seconds, the OPERATING MODE screen will appear on the Fiber OWL 4 display, with SIMPLE METER being highlighted as shown at right.



#### STEP 3 - Enter SIMPLE METER

Press **F2** on the Fiber OWL 4 to enter SIMPLE METER.

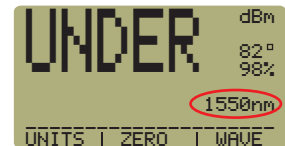
The display should read 'UNDER' as shown at right.

By default, the wavelength will be set to '850nm' and the measurement units will be set to 'dBm'.



#### STEP 4 - Set Fiber OWL 4 to 1550nm

Press **F3** on the Fiber OWL 4 until the wavelength display shows '1550nm' as shown at right.



#### 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 **WAVE** 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 Fiber OWL 4 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 Fiber OWL 4 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 Fiber OWL 4 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.