ODM DLS 355 Dual Laser Source User Guide

Contents

ODM DLS 355 Dual Laser Source

Product Information

Specifications

- **Model:** DLS 355 Dual Laser Source
- **Wavelengths:** 1310nm and 1550nm
- **Output Power Level:** -5dBm (may vary between -5dBm and-8dBm)
- **Power Supply:** AC 030 power supply (not a battery charger)
- **Laser Class:** Class 1 Laser Product

Product Usage Instructions

Transmitting Light

- The DLS 355 transmits either the 1310nm or 1550nm wavelength on single-mode fiber. Use a test jumper to connect the DLS 355 to the fibre under the test.

Mate Connectors Appropriately

- Ensure proper mating of connectors using a test jumper to propagate the signal down the fibre.

Output Power

- The DLS 355 is calibrated to have an output power level of -5dBm. Check power levels before insertion loss tests using a companion power meter set to dBm mode.

Caring for the DLS 355 Output Port

- Inspect and clean test jumpers before plugging into the DLS 355 to avoid damage to the unit’s output port.

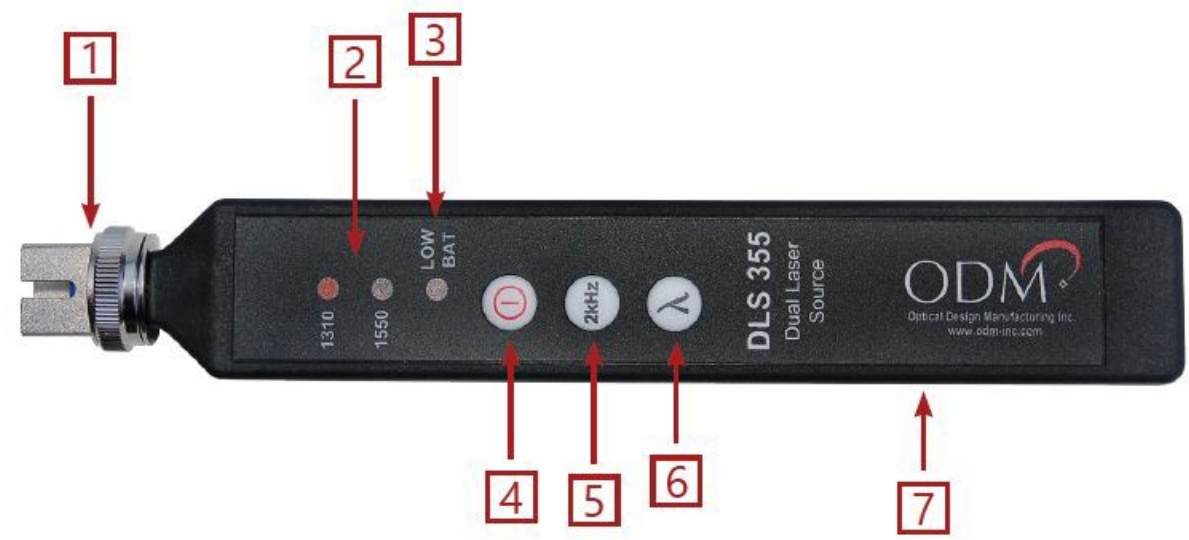
Damaged connectors can harm the device.

FAQ

- **Q:** What should I do if the low battery indicator lights up?
- **A:** When the low battery indicator appears, replace the CR2 battery with a new one to ensure normal operation of the DLS 355.
- **Q:** How do I switch between the 1310nm and 1550nm wavelengths?
- **A:** Use the wavelength button on the DLS 355 to toggle between the 1310nm and 1550nm wavelengths.

DLS 355 Dual Laser Source
Device Manual and Quick-Start Guide
The DLS 355 dual laser source is a single-mode test laser used for verifying the proper function of fibre optic networks. This document will serve as an overview of the major features and functions of the device and will offer tips for troubleshooting common issues in optical networks.

Device Overview



1. **Connector Adapter – Interchangeable**
   The DLS 355 comes with an SC screw-on adapter. Additional adapters are available from ODM; see page 4 of this document for more information.
2. **Wavelength Indicator**
   This unit offers 1310nm and 1550nm wavelengths. When the DLS 355 is turned on, the red light indicates which wavelength is selected. The red light will blink to indicate when the 2kHz modulation is turned ON.
3. **Low Battery Indicator**
   A red indicator light will appear when the CR2 battery power is low. Replace the battery to return to normal operation of the DLS 355.
4. **Power Button**
   Press this button to turn the DLS 355 ON and OFF. The unit will turn off automatically after 15 minutes. To bypass the auto-shutoff, hold the power button for 5 seconds when turning ON.
5. **2kHz Button**
   Toggles 2kHz modulation of currently selected wavelength output. Laser flashes at 2000 times per second to provide a recognizable signal to a companion power meter. The output power of the laser is reduced by 3dB

when the modulation is active.

6. **Wavelength Button**

   Switches between the 1310nm and 1550nm wavelength.

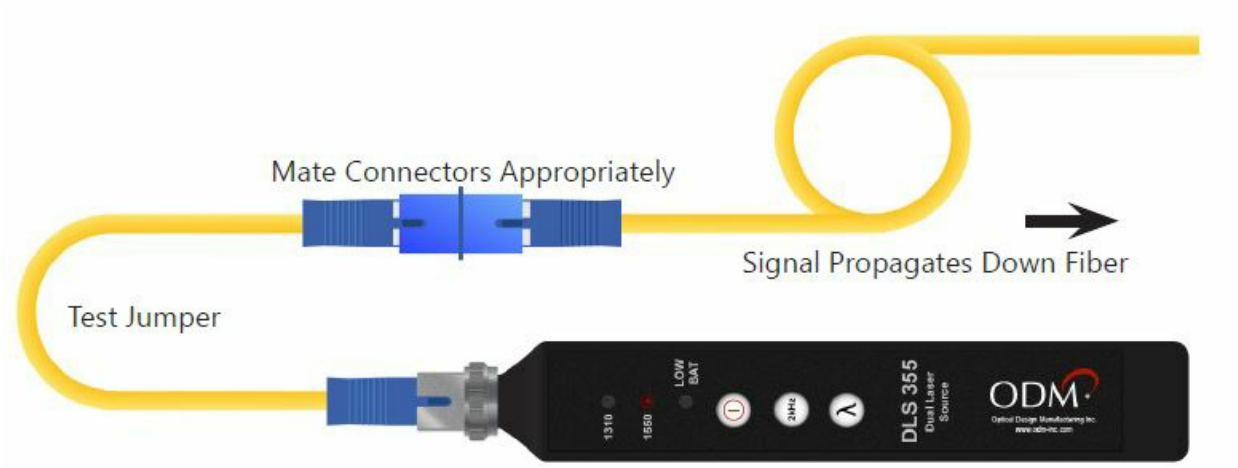
7. **External Power Port**

   Accepts AC 030 power supply. The power supply is not a battery charger, just a battery bypass.

Caution: Invisible Laser Radiation
Please note that 1310nm and 1550nm wavelengths are not visible to the human eye. Do not look directly into the output port of the DLS 355 or directly into any fibre connector that may be live.
Since the laser is invisible to the eye, the eye's natural blink reflex is suppressed. This can cause damage to the retina.

Transmitting Light

- The DLS 355 transmits either the 1310nm or 1550nm wavelength on single-mode fiber. Be sure to use a test jumper to mate the DLS 355 to the fibre under test.



Output Power

- The DLS 355 is calibrated to have an output power level of -5dBm. Variations in power level between -5dBm and -8dBm may be normal depending on the quality and age of the test jumper, the DLS 355 output port, and other factors.
- Always ensure the DLS 355 is transmitting an acceptable power level before performing an insertion loss test. Simply insert the test jumper (plugged into the DLS 355) into a companion power meter set to the dBm mode. The power meter will indicate the measured output power of the laser.

Caring for the DLS 355 Output Port

The DLS 355 utilizes a physical fibre connection at the output port. This ensures a steady power level for performing insertion loss tests.
Be aware that any test jumpers must be inspected and cleaned before plugging into the DLS 355 unit. If soiled or damaged connectors are inserted, they can cause damage to the DLS 355 output port and the unit may need to be repaired.

- The test jumper has physical contact with the ferrule inside the DLS 355.

To clean the ferrule inside the DLS 355:

- Unplug the test jumper
- Unscrew the adapter until it spins freely, then pull
- Inspect the ferrule with an approved microscope, clean if necessary, and replace the adapter

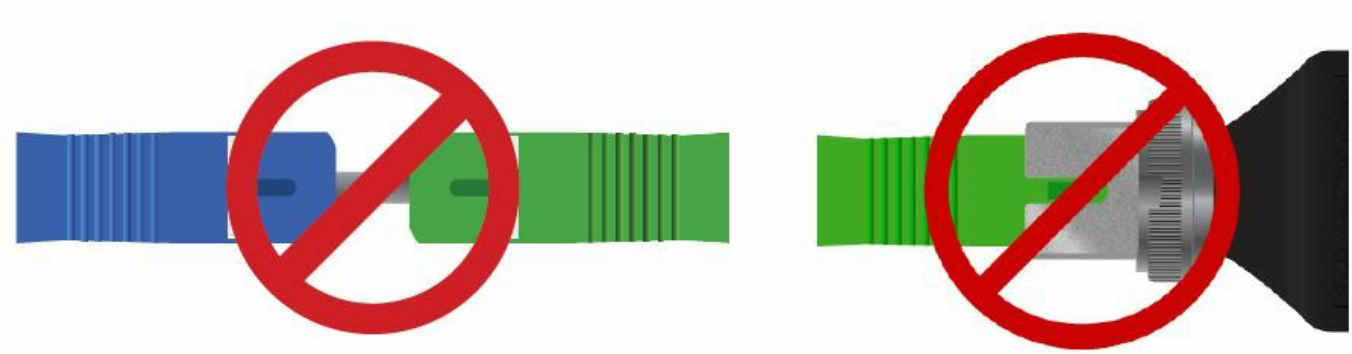
Using the 2kHz Function

When the 2kHz modulation is active on the DLS 355, the currently selected wavelength indicator will blink. The 2kHz modulation will be recognized by optical power meters further down the fibre and indicated by a 2kHz notification onscreen and a loud beep. The modulated tone may also be recognized through the fibre jacket when a Live Fiber Identifier is used.

- The LFI introduces a bend into the fiber which leaks light from the core onto the detector of the power meter.
- When using an LFI, expect a 30-35dB offset in core power.

Notes On Testing
AC 030 Battery Bypass Blue connectors (UPC) have a straight ferrule with a domed interface. Green connectors (APC) have an eight-degree angled ferrule with a domed interface.

- UPC and APC connectors are not compatible. NEVER connect UPC and APC connectors, OR plug an APC connector into the DLS 355 unit. This can cause irreparable damage to both connectors.



AC 030 Battery Bypass

- ODM offers the AC 030 wall plug for users who wish to leave their DLS 355 turned on for long periods.
- This is NOT a charger but rather powers the unit from a wall outlet.

Light Source Accessories

Light Source Adapters	
Part Number	***Description***
AC 022B	SC Adapter
AC 023B	FC Adapter
AC 024B	ST Adapter
AC 025B	LC Adapter

Patch Cord Accessories	
Part Number	***Description***
AC 500	SM SC-LC – 1m simplex
AC 505	SM SC-ASC – 1m simplex
AC 501	SM SC-SC – 1m simplex
AC 502	SM LC-LC – 1m simplex
AC 600	SC-SC simplex bulkhead
AC 601	LC-LC simplex bulkhead
AC 602	LC-LC duplex bulkhead

Contact ODM Support

- Phone: 603-524-8350
- Email: **tech.support@odm.ripley-tools.com**.
- Web: **www.odm-inc.com**.

Documents / Resources


ODM
DLS 355 Dual Laser Source
Device Manual and Quick-Start Guide
Device Overview

	[ODM DLS 355 Dual Laser Source](#) [pdf] User Guide DLS 355 Dual Laser Source, DLS 355, Dual Laser Source, Laser Source, Source

References

- [Ripley® Test & Inspect - Ripley Tools](#)
- [Ripley Tools | Precision tools for power and communications](#)
- [Ripley® Test & Inspect - Ripley Tools](#)
- [User Manual](#)