

Operation Manual for FS-101 Light Source 1310/1550nm

Version 1.0



AA Logic

Allied Analogic, Inc.
132 Redtail Ct.
Weatherford, TX 76088
(817) 599-0272
www.AALogic.com

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1 Overview

The FS-101 is a portable, handheld optical fiber light source used to measure the loss in optical fiber cables.

2 Product Features

The FS-101 features include:

- 1310, 1550 nm
- CW, 270Hz, 1KHz, and 2KHz modulation
- Compact size
- Large LCD
- Simple operation
- 60 hour battery life
- Backlit display
- Auto-off
- Stable output power

3 Kit Contents



- FS-101 portable optical light source
- Operation Manual
- AC Adapter
- 9V battery
- Cotton swab
- SC connector
- ST connector
- Carry bag

4 Technical Specifications

Model FS-101	
Wave-length(nm)	1310, 1550
Emitter Type	FP-LD
Modulation Frequencies	CW, 270Hz,1KHz,2KHz
Output Power	-7dBm
Fiber Type	SM
Output Stability	$\pm 0.04\text{dBm}$ @20°C @ 15min
Optical connector	FC, SC, and ST
Operating Temperature	-10 to 60°C
Storage Temperature	-25 to 70°C
Automatic Shutdown	15 min
Operation Time, battery	60 hours
Overall Dimension	7.28" × 4.125" × 2.0"
Power supply	9V Battery or AC Adapter
Weight	12.5 oz. (350g)

5 Applications

The FS-101 is used as an optical fiber light source. The light source, along with a suitable meter such as the FM-101, is used to determine the loss in an optical fiber cable.

Functional Description

6 Power On/Off



Press the Power button to turn the FS-101 on. Press the button for approximately two seconds to turn the FS-101 off.

7 Auto-off function



The Auto-off feature is automatically enabled when the FS-101 is turned on. The unit will turn off after 15 minutes. Auto-off is displayed when the feature is on.

The Auto-off function can be toggled on or off by momentarily pressing the Power button.

Backlight

The backlight is on when the FS-101 is turned on and may be turned on or off with the Light key. The backlight times out after approximately 30 seconds of inactivity to conserve battery power. Press the Light key to turn the light back on.

8 Front Panel Keypad



1. Turns the backlight on and off.
2. λ – Selects the output wavelength.
3. Selects the modulation frequency.
4. Power On/Off

9 Display



- | | |
|-------------------------|-----------------------|
| 1. Modulation Frequency | 2. AC Power Connected |
| 3. Wavelength | 4. Battery Level |
| 5. Auto-off setting | |

10 Operation

1. Attach the appropriate connector to the FS-101. Clean the connector to ensure the best results.
2. Connect one end of a cleaned optical fiber jumper to the FS-101. Ensure the end of the jumper connector is cleaned.
3. Connect the other end of the jumper to the meter to be used. Follow meter instructions for the connection.
4. Turn on the FS-101 and select the wavelength and modulation for the test.
5. Follow the meter instructions to make measurements.

Note: Disable the Auto-off function if necessary.

Warning: Do not look directly into the connector on the FS-101 to avoid possible eye injury.

11 Maintenance

The outside of the FS-101 and boot can be cleaned with a damp cloth or mild cleaner such as window cleaner.

Avoid exposing the unit to temperature extremes. Condensation can form inside the unit and affect proper operation.

Always clean the optical connector each time a connector is attached.

If the unit is exposed to water, immediately remove the power and battery and allow the unit to dry completely before attempting any further use. Water may cause permanent damage.

Ensure the dust cap is in place any time a connector is not attached.

11.1 Battery Replacement

Replace the battery with a standard 9V battery as follows:

Open the back cover by lifting the latch at the bottom of the cover.

Take the battery out of the compartment and remove the clip from the battery.

Connect the clip to the new battery, place the battery in the compartment, and replace the cover.

Remove the battery when the FS-101 will be stored for long periods to prevent damage from battery leakage.

12 Troubleshooting

Problem	Solution
No screen display	Check and replace the battery or use the AC adapter as needed.
Incorrect or no output is measured	Clean the optical port. Ensure the auto-off feature has not turned the unit off. Disable Auto-off if necessary. Verify the connection to the light source and the meter. Check that the correct wavelength is selected. Check that the correct modulation is selected. Replace the battery or AC Adapter as needed. Allow time for the device to reach operating temperature.

13 Calibration

Periodic calibration may be necessary to ensure the output level of the FS-101 meets specifications. Contact AALogic.com for information on calibration.

14 Warranty

The FS-101 Fiber Optic Light Meter is warranted against defects in materials and workmanship for a period of one year from the date of purchase. Contact your local sales representative or the manufacturer for a Return Authorization (RA) number and instructions on returning the product for service. Products cannot be processed unless accompanied by an RA number.

The user is responsible for determining the applicability of the product for any application. The manufacturer is not responsible for any damages, direct or consequential, resulting from the use of its products. Users are required to follow all work safety procedures when using this product.

Damages due to impact, battery failure, flooding, or normal wear are excluded.

The manufacturer will determine, exclusively at its own discretion, where repairs or replacement of the product is required for any warranty claim. In no case will the liability of the manufacturer exceed the original purchase price of the product.

Contact:

Allied Analogic, Inc.
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warranty@aalogic.com
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