

EXFO MAX-710B-SM1

EXFO MAX-710B OTDR Module User Manual

Model: MAX-710B-SM1

1. INTRODUCTION

The EXFO MAX-710B is a tablet-inspired Optical Time Domain Reflectometer (OTDR) designed for efficient fiber optic network testing. It features a 7-inch outdoor-enhanced touchscreen and an intuitive graphical user interface (GUI). This device is optimized for point-to-point testing and troubleshooting of FTTx architectures, including short fiber segments in central office (CO) environments or FTTA/DAS network installations.

The MAX-710B offers a 12-hour battery life and supports plug-and-play hardware options such as a Visual Fault Locator (VFL), power meter, and USB tools. Its compact and rugged design makes it suitable for various field environments.

2. PRODUCT OVERVIEW

The following diagram illustrates the key components and ports of the EXFO MAX-710B OTDR unit.

- 1 Singlemode OTDR port
- 2 Testing LED indicator
- 3 Stylus
- 4 Power meter

- 5 Visual fault locator
- 6 10/100 Mbit/s Ethernet port
- 7 Two USB 2.0 ports
- 8 AC adapter

- 9 Home/switch application and screen capture (hold)
- 10 Power on/off/standby
- 11 Battery LED status



Figure 2.1: Front view of the EXFO MAX-710B OTDR with labeled ports and indicators.

1. **Singlemode OTDR port:** Connects to the fiber under test.
2. **Testing LED indicator:** Illuminates during OTDR testing.
3. **Stylus:** For precise touchscreen interaction.
4. **Power meter:** Integrated optical power measurement port.
5. **Visual fault locator:** Integrated red laser for visual fault identification.
6. **10/100 Mbit/s Ethernet port:** For network connectivity.
7. **Two USB 2.0 ports:** For connecting USB devices (e.g., storage, external keyboard).
8. **AC adapter:** Power input for charging and operation.
9. **Home/switch application and screen capture (hold):** Button for navigation and utility functions.
10. **Power on/off/standby:** Main power control button.
11. **Battery LED status:** Indicates battery charge level and charging status.

3. SETUP

3.1 Unpacking and Initial Inspection

Carefully unpack the EXFO MAX-710B unit and all accessories. Verify that all components listed in the packing slip are present and undamaged. Retain the packaging for future transport or storage.



Figure 3.1: EXFO MAX-710B OTDR unit with typical accessories including charger, carrying bag, and documentation.

3.2 Charging the Battery

Before first use, fully charge the internal battery. Connect the provided AC adapter to the AC adapter port (8) on the unit and plug it into a power outlet. The Battery LED status indicator (11) will show the charging progress. A full charge provides approximately 12 hours of operation.

3.3 Powering On/Off

- To Power On:** Press and hold the Power On/Off/Standby button (10) until the screen illuminates.
- To Power Off:** Press and hold the Power On/Off/Standby button (10) until the shutdown options appear on the screen, then select 'Power Off'.
- To Enter Standby:** Briefly press the Power On/Off/Standby button (10). Briefly press again to wake the device.



Figure 3.2: The EXFO MAX-710B display showing the initial boot screen.

4. OPERATING INSTRUCTIONS

4.1 Navigating the User Interface

The MAX-710B features an intuitive, icon-based graphical user interface (GUI) optimized for its 7-inch touchscreen. Use your finger or the provided stylus (3) to navigate menus, select options, and input data. The 'Home' button (9) allows quick access to the main application screen.

4.2 Performing an OTDR Test

- 1. Connect Fiber:** Clean the fiber optic connector and connect it to the Singlemode OTDR port (1).
- 2. Select OTDR Application:** From the main menu, tap the OTDR application icon.
- 3. Configure Test Parameters:** The OTDR 2.0 environment offers automatic and real-time modes. For most standard tests, the auto mode will configure optimal parameters. You can manually adjust settings such as wavelength (1310nm or 1550nm), pulse width, and range if required.
- 4. Start Test:** Tap the 'Start' button on the screen to initiate the OTDR trace. The Testing LED indicator (2) will

illuminate.

5. **Analyze Results:** Once the test is complete, the OTDR trace will be displayed, showing events, losses, and reflections. The device includes automatic macrobend finders to assist in analysis.
6. **Save Results:** Save the test results for documentation and reporting.

MaxTester 710B Last-Mile OTDR

POINT-TO-POINT (P2P) LINKS, LAST-MILE INSTALLATION
AND TROUBLESHOOTING



Figure 4.1: OTDR trace display showing fiber events and measurement data.

4.3 Using Integrated Tools

- **Visual Fault Locator (VFL):** Activate the VFL from the menu to inject a red laser into the fiber for visual identification of breaks or macrobends over short distances.
- **Power Meter:** Use the integrated power meter (4) to measure optical power levels.
- **Ethernet Tester:** The device includes an Automated Ethernet Tester for 10/100/1000MB Ethernet network installation and optimization.

5. MAINTENANCE

5.1 Cleaning the Unit

- **Screen:** Use a soft, lint-free cloth slightly dampened with water or a mild screen cleaner. Do not use abrasive cleaners or solvents.
- **Casing:** Wipe the exterior with a soft, damp cloth.

- **Optical Ports:** Always keep optical ports covered when not in use. Use specialized fiber optic cleaning tools (e.g., lint-free wipes, cleaning sticks, compressed air) to clean the OTDR port and VFL/power meter ports. Improper cleaning can damage the optical connectors.

5.2 Battery Care

- For optimal battery life, avoid fully discharging the battery frequently.
- Store the unit in a cool, dry place when not in use for extended periods.
- Use only the original EXFO-approved AC adapter for charging.

5.3 Software Updates

Periodically check the manufacturer's website for software updates to ensure optimal performance and access to new features. Follow the provided instructions for installing updates via USB or Ethernet connection.

6. TROUBLESHOOTING

6.1 Common Issues

- **Unit does not power on:** Ensure the battery is charged. Connect the AC adapter and attempt to power on. If the issue persists, contact support.
- **Touchscreen unresponsive:** Perform a soft reset by holding the power button for an extended period (e.g., 10-15 seconds) until the unit restarts. Ensure the screen is clean and dry.
- **No OTDR trace or inaccurate readings:**
 - Verify the fiber connection is clean and secure at the OTDR port.
 - Ensure the correct wavelength (1310nm/1550nm) is selected for the fiber type.
 - Check the fiber under test for severe damage or breaks using the VFL.
 - Ensure the test parameters (pulse width, range) are appropriate for the fiber length.
- **Battery not charging:** Verify the AC adapter is properly connected and the power outlet is functional. Check the AC adapter for damage.

6.2 Contacting Support

If troubleshooting steps do not resolve the issue, please contact EXFO technical support or your authorized distributor for further assistance. Provide your product model number (MAX-710B-SM1) and a detailed description of the problem.

7. SPECIFICATIONS

Feature	Specification
Model	EXFO MAX-710B-SM1 OTDR Module
Display	7-inch, 800 x 480 TFT color touchscreen
OTDR Wavelengths	1310 nm / 1550 nm
Dynamic Range	30 dB / 28 dB
Event Dead Zone (EDZ)	1 m
Attenuation Dead Zone (ADZ)	4 m

Feature	Specification
Connectivity	2x USB 2.0 ports, 1x 10/100 Mbit/s Ethernet port
Battery Life	Up to 12 hours
Weight	Less than 800g (approx. 1.76 lbs)
Dimensions (L x W x H)	Approximately 8 x 6 x 3 inches
Manufacturer	Canada-EXFO

8. WARRANTY AND SUPPORT

This product is covered by a standard manufacturer's warranty. For detailed warranty terms and conditions, please refer to the documentation included with your purchase or visit the official EXFO website. Keep your proof of purchase for warranty claims.

For technical support, service, or replacement parts, please contact EXFO customer service. Contact information can typically be found on the EXFO website or in the product packaging.