

Olympus MU-1

Olympus MU-1 Flexible Endoscope Leak Testing Unit

USER MANUAL

1. Introduction

This user manual provides essential information for the safe and effective operation, setup, and maintenance of the Olympus MU-1 Flexible Endoscope Leak Testing Unit. The MU-1 is designed to test flexible endoscopes for leaks, ensuring their integrity and preventing damage during reprocessing. Please read this manual thoroughly before using the device.

2. Safety Information

Always observe the following safety precautions to prevent injury to personnel or damage to the equipment.

- Ensure the unit is placed on a stable, level surface.
- Do not expose the unit to excessive moisture or liquids.
- Only use the unit for its intended purpose: leak testing flexible endoscopes.
- Disconnect power before cleaning or performing any maintenance.
- Refer all servicing to qualified Olympus service personnel.

3. Components and Controls

Familiarize yourself with the main components of the Olympus MU-1 Leak Testing Unit.



Figure 3.1: Front view of the Olympus MU-1 Leak Testing Unit. This image shows the main unit with the "OLYMPUS OUTPUT" dial, the green "POWER" switch, and the "MU-1" model designation at the bottom.



Figure 3.2: Detail of the power switch and model label. This close-up highlights the green illuminated power switch and the "MU-1" model number printed on the unit's casing.



Figure 3.3: The Olympus Leakage Tester component. This cylindrical part is labeled "OLYMPUS LEAKAGE TESTER" and includes "JAPAN" and "CE" markings, indicating its origin and compliance.



Figure 3.4: The connection end of the leakage tester. This image shows the metallic connector designed to attach to the endoscope, featuring a central pin and a circular opening.

Key Components:

- **Main Unit (MU-1):** Houses the power supply, controls, and output connection.
- **Power Switch:** Green illuminated switch to turn the unit ON/OFF.
- **Output Dial:** Used to adjust the air pressure or output signal for testing.
- **Leakage Tester (MB-155):** The attachment connected to the endoscope for performing the leak test.
- **Connection Cable:** Connects the Leakage Tester to the main MU-1 unit.

4. Setup

1. **Unpacking:** Carefully remove the MU-1 unit and all accessories from the packaging. Inspect for any signs of damage.
2. **Placement:** Place the MU-1 unit on a clean, dry, and stable surface, away from direct sunlight or heat sources.
3. **Power Connection:** Connect the power cord to the MU-1 unit and then to a grounded electrical outlet. Ensure the power switch is in the OFF position before connecting.
4. **Leakage Tester Connection:** Connect the cable from the MB-155 Leakage Tester to the designated output port on the MU-1 main unit. Ensure a secure connection.

5. Operating Instructions

Follow these steps to perform a leak test on a flexible endoscope using the Olympus MU-1 unit.

1. **Prepare the Endoscope:** Ensure the endoscope is clean and dry externally. Refer to the endoscope's specific manual for pre-test preparation.
2. **Connect Leakage Tester:** Attach the MB-155 Leakage Tester to the appropriate port on the endoscope, typically the venting connector or a dedicated leak test port. Ensure a tight, secure seal.
3. **Power On:** Turn on the MU-1 unit by pressing the green "POWER" switch. The switch should illuminate.
4. **Inflate Endoscope:** Slowly turn the "OUTPUT" dial on the MU-1 unit to inflate the endoscope. Observe the pressure gauge (if applicable on the endoscope or tester) and inflate to the pressure specified by the endoscope manufacturer. *Do not over-inflate.*
5. **Submerge Endoscope:** Carefully submerge the entire endoscope, with the Leakage Tester still attached and inflated, into a basin of clean water.
6. **Observe for Bubbles:** Observe the endoscope for any streams of bubbles, which indicate a leak. Pay close attention to the distal tip, control section, and insertion tube.
7. **Identify Leak Location:** If bubbles are observed, note their location. This indicates the area of the leak.
8. **Deflate and Disconnect:** After testing, turn the "OUTPUT" dial to release the pressure from the endoscope. Once fully deflated, disconnect the Leakage Tester from the endoscope.
9. **Power Off:** Turn off the MU-1 unit by pressing the green "POWER" switch.

Note: Always follow the endoscope manufacturer's instructions for leak testing, as procedures may vary slightly.

6. Maintenance

Proper maintenance ensures the longevity and reliable operation of your Olympus MU-1 unit.

- **Cleaning:**
 - Wipe the exterior of the MU-1 unit with a soft, damp cloth. Do not use abrasive cleaners or solvents.
 - Ensure no liquid enters the unit's openings.
 - Clean the MB-155 Leakage Tester according to its specific instructions, typically by rinsing and drying.
- **Storage:** Store the MU-1 unit and accessories in a clean, dry place, away from extreme temperatures and humidity.
- **Inspection:** Periodically inspect the power cord and connection cables for any signs of wear or damage. Do not use if damaged.
- **Calibration:** Regular calibration by authorized service personnel is recommended to ensure accurate pressure output.

7. Troubleshooting

This section addresses common issues you might encounter with the Olympus MU-1 unit.

Problem	Possible Cause	Solution
Unit does not power on.	Power cord not connected; Power outlet faulty; Unit malfunction.	Ensure power cord is securely plugged in. Test power outlet with another device. If problem persists, contact customer support.
No air pressure output.	Leakage Tester not connected properly; Output dial set to minimum; Internal fault.	Check connection of Leakage Tester. Turn the "OUTPUT" dial clockwise. If still no output, contact customer support.
Inconsistent pressure.	Loose connection; Internal component issue.	Verify all connections are secure. Contact customer support for further assistance.

8. Specifications

Technical specifications for the Olympus MU-1 Leak Testing Unit.

- **Model:** MU-1
- **Manufacturer:** Olympus
- **Part Number:** MU-1
- **ASIN:** B01FGNXO0S
- **First Available Date:** June 25, 2017
- **Associated Leak Tester:** MB-155 (not included with MU-1 unit, but compatible)
- *Further detailed specifications (e.g., power requirements, pressure range) should be obtained from official Olympus documentation.*

9. Warranty Information

The Olympus MU-1 Leak Testing Unit typically comes with a limited warranty. Based on product information, **30-day**

warranty is often provided for this unit. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the warranty card included with your product or contact Olympus customer support.

10. Customer Support

For technical assistance, service, or to order replacement parts, please contact Olympus customer support. Visit the official Olympus website for the most up-to-date contact information and support resources.

Online Resources: www.olympus-global.com

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question