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TOMLOV DM602 Flex

TOMLOV DM602 Flex Digital Soldering Microscope User Manual

Model: DM602 Flex

INTRODUCTION

The TOMLOV DM602 Flex Digital Soldering Microscope is a versatile and powerful tool designed for detailed observation and precision work. Featuring a flexible arm for optimal positioning, a 10.1-inch HDMI display, and three interchangeable lenses, it is ideal for micro soldering, coin examination, biological studies, and electronic repair. This manual provides essential information for setting up, operating, and maintaining your microscope.



Figure 1: TOMLOV DM602 Flex Digital Soldering Microscope complete setup.

WHAT'S IN THE BOX

Verify that all components are present in your package:

- 1x DM602 Flex 10 inch HDMI Digital Soldering Microscope
- 1x Lens A (2x-700x magnification)
- 1x Lens L (60x-200x magnification)
- 1x Lens D (1000x-2000x magnification)
- 1x 144 LEDs Ring Light
- 1x 4 inch Post
- 1x Soldering Mat
- Power Adapter
- USB Cable
- HDMI Cable
- Remote Control

Upgraded Boom Arm

Unlock Exceptional Viewing Angles & Flexibility



Figure 3: Flexible arm installation on a workbench.

2. **Attach the Microscope to the Arm:** Connect the microscope unit to the flexible arm's mounting point. Tighten any screws to ensure a firm connection.

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Video 1: Detailed instructions on how to install the flexible microscope arm.

3. **Install the Ring Light:** The 144-LED ring light provides optimal illumination. Attach it to the microscope lens barrel. Adjust the brightness using the stepless dimming knob.

Brighter 144 LED Ring Light



Figure 4: The 144-LED ring light for enhanced illumination.

4. **Connect Power and Display:** Plug in the power adapter. For external display, connect an HDMI cable to a monitor or TV, or a USB cable to a computer. Ensure all cables are neatly managed to avoid interference.

OPERATING INSTRUCTIONS

This section covers the primary functions and features of your microscope.

Interchangeable Lenses

The DM602 Flex comes with three specialized lenses for various applications:

- **Lens A (2x-700x):** Ideal for full coin views, stamps, and larger objects.
- **Lens L (60x-200x):** Designed for micro soldering, PCB inspection, and tasks requiring more working distance.
- **Lens D (1000x-2000x):** For high-magnification observation of biological slides and microscopic details.

3 Lenses for Endless Exploration



Lens A
2x-700x



Lens L
60x-200x



Lens D
1000x-2000x



Figure 5: Overview of the three specialized lenses.

To change lenses, carefully unscrew the current lens and screw in the desired one. Ensure it is securely fastened.

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Video 2: Demonstration of full view of a one-dollar coin using Lens A.

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Video 3: Example of 2000x biological lens for educational purposes (Lens D).

Magnification and Focus

Adjust the magnification using the controls on the microscope unit or the remote control. The flexible arm allows for precise positioning to achieve optimal focus and viewing angles.



Figure 6: Magnification range from 2x to 2000x.

Display and Connectivity

The 10.1-inch IPS screen provides a clear and wide viewing angle. You can also connect the microscope to a larger display via HDMI or a computer via USB for collaborative viewing or recording.

Larger, Brighter, Clearer Screen

10.1
inch

IPS
178°

HDR
image

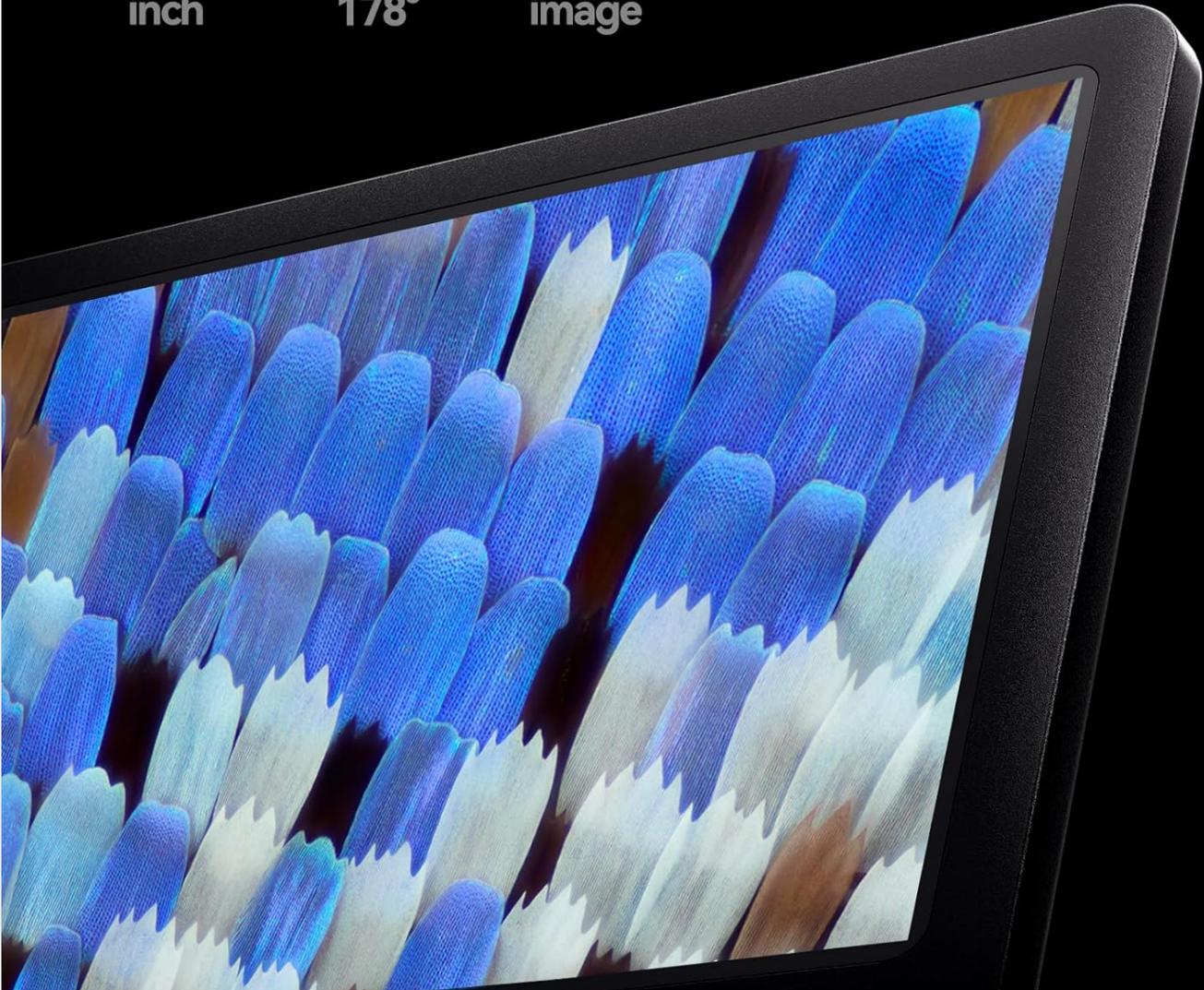


Figure 7: The 10.1-inch IPS screen offers immersive viewing.

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Video 4: Overview of the TOMLOV DM602 Flex Digital Soldering HDMI Microscope.

Using the Soldering Mat

The included heat-resistant silicone soldering mat protects your work surface and helps organize small components during electronic repair or soldering tasks.

Advanced Silicone Soldering Mat

Empower Your Electronics Soldering Projects



Figure 8: The silicone soldering mat in use for electronic repair.

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Video 5: Demonstration of the electronic repair work soldering mat.

MAINTENANCE

- **Cleaning Lenses:** Use a soft, lint-free cloth and lens cleaning solution to clean the lenses. Avoid abrasive materials that could scratch the optics.
- **Cleaning Screen:** Wipe the screen gently with a microfiber cloth. For stubborn smudges, use a screen-safe cleaning spray.
- **Storage:** When not in use, store the microscope in a dry, dust-free environment. Detach the lenses and store them in their protective cases.
- **Cable Management:** Regularly check power and data cables for any signs of wear or damage. Keep them organized to prevent tangles and strain.

TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|------------------------|---|--|
| No image on screen | Power not connected; Lens cap on; Incorrect input source (for external display) | Check power connection; Remove lens cap; Select correct input on external display. |
| Blurry image | Incorrect focus; Dirty lens; Wrong lens for working distance | Adjust focus knob; Clean lens; Select appropriate lens for your task. |
| Unstable image/shaking | Unstable mounting surface; Loose arm joints | Ensure desk/workbench is stable; Tighten all arm joints. |
| Ring light not working | Power issue; Dimmer set to minimum | Check power connection to ring light; Adjust dimmer knob. |

SPECIFICATIONS

| Feature | Detail |
|----------------------|---|
| Model Name | DM602 Flex |
| Display Screen | 10.1-inch IPS Screen |
| Magnification Range | 2x-2000x (with various lenses) |
| Lenses Included | Lens A (2x-700x), Lens L (60x-200x), Lens D (1000x-2000x) |
| Illumination | 144-LED Ring Light (Stepless Dimming) |
| Connectivity | HDMI, USB |
| Arm Type | Flexible Arm with Desk Clamp |
| Included Accessories | Silicone Soldering Mat, Remote Control, 64GB MicroSD Card |
| Power Source | 110 Volts (AC Adapter) |
| Product Dimensions | 16.5 x 11.8 x 6.3 inches |
| Item Weight | 3.58 pounds (1623 Grams) |

WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the contact information provided on the TOMLOV official website or your purchase receipt. Keep your proof of purchase for warranty claims.

Online Resources: Visit the [TOMLOV Store](#) for additional product information, FAQs, and support.