Andonstar AD407-Pro-JP

Andonstar AD407 Pro 3D HDMI Soldering Digital Microscope User Manual

Model: AD407-Pro-JP

1. Introduction

The Andonstar AD407 Pro is a high-definition digital microscope designed for detailed observation and work, particularly suited for soldering, phone repairing, SMT, SMD, and DIY projects. It features a 4MP UHD camera, a 7-inch adjustable LCD screen, and HDMI output for simultaneous dual-screen display. Its robust metal stand and industrial-grade lens with a UV filter ensure durability and protection during high-temperature applications.

2. Package Contents

Verify that all components listed below are included in your package:

- AD407 Microscope Host
- UV Filter (pre-assembled on lens)
- Pro Metal Base Plate
- Wireless Remote Control
- Power Plug
- Metal Column
- Wrench
- Metal Clips
- Beam Assembly
- Switch Cable
- HDMI Cable
- Instruction Manual



Figure 2.1: Package Contents Diagram

3. Setup Instructions

Follow these steps to assemble your Andonstar AD407 Pro Digital Microscope:

1. **Attach the Metal Column to the Base Plate:** Securely fasten the metal column to the designated slot on the metal base plate using the provided wrench and screws.
2. **Mount the Beam Assembly:** Slide the beam assembly onto the metal column. Ensure it can move freely up and down for height adjustment.
3. **Attach the Microscope Host:** Connect the AD407 Microscope host to the beam assembly. The host should be firmly attached to prevent movement during operation.
4. **Connect LED Lights:** Attach the two flexible LED lights to the base plate. Position them to illuminate the working area effectively.
5. **Power Connection:** Connect the power plug to the microscope host and then to a power outlet.

6. **Optional: HDMI Connection:** If you plan to use an external display, connect the HDMI cable from the microscope's HDMI output port to your television or monitor.
7. **Insert Micro SD Card:** Insert a Class 10 high-speed Micro SD card (up to 64GB, not included) into the designated slot on the microscope host for recording images and videos.



Figure 3.1: Fully Assembled Microscope



Figure 3.2: Assembly Steps

4. Operating Instructions

4.1 Powering On and Off

Press the power button on the microscope host to turn the device on or off. The 7-inch IPS LCD screen will illuminate upon startup.

4.2 Focusing and Magnification

To achieve a clear image:

- **Adjust Working Distance:** Rotate the bracket knob to fine-tune the vertical distance between the lens and the object. This adjusts the working distance and initial magnification.
- **Fine Focus:** Rotate the metal focusing wheel on the microscope lens barrel to bring the image into sharp focus on the screen.



Figure 4.1: Focusing and Object Distance Adjustment

4.3 LED Lighting Adjustment

The microscope is equipped with two flexible LED lights on the base plate. Use the inline switch cable to adjust the intensity through 8 levels. The light bodies can be bent and angled to provide optimal illumination for your subject.



Figure 4.2: Adjustable LED Lighting

4.4 Remote Control Functions

The wireless remote control provides convenient access to various functions without touching the microscope, minimizing shake:

- **Image Capture:** Press the designated button to take still photos.
- **Video Recording:** Press the designated button to start and stop video recording.
- **Digital Zoom:** Adjust the magnification digitally.
- **Image Discoloration:** Change color modes (e.g., black & white, inverse).
- **Menu Navigation:** Access and navigate the microscope's settings menu.



Figure 4.3: Remote Control Features

4.5 HDMI Output

The AD407 Pro supports simultaneous dual-screen display via HDMI. Connect the HDMI cable to an external monitor or television to view the microscope's output on a larger screen. This is ideal for demonstrations or collaborative work.



Figure 4.4: Dual-Screen Display via HDMI

5. Maintenance

Proper maintenance ensures the longevity and optimal performance of your microscope:

- **Lens Cleaning:** Use a soft, lint-free cloth specifically designed for optical lenses to clean the microscope lens. For stubborn smudges, a small amount of lens cleaning solution can be applied to the cloth, not directly to the lens.
- **UV Filter:** The unique UV filter is designed to protect the lens from soldering heat, smoke, and dust. Regularly inspect and clean the UV filter. If it becomes damaged or excessively dirty, it can be replaced.
- **General Cleaning:** Wipe down the microscope body and stand with a dry or slightly damp cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Storage:** When not in use, store the microscope in a clean, dry environment, away from direct sunlight and extreme temperatures.



Figure 5.1: Industrial Metal Lens and UV Filter

6. Troubleshooting

This section addresses common issues you might encounter:

Problem	Possible Cause	Solution
No image on screen.	Power not connected; device not turned on; lens cap on.	Ensure power cable is securely connected and device is powered on. Remove lens cap.
Image is blurry.	Incorrect focus; incorrect working distance.	Rotate the focusing wheel for fine adjustment. Adjust the height of the microscope on the stand to change the working distance.
LED lights not working.	Switch cable not connected; lights damaged.	Check the connection of the switch cable. Ensure the lights are properly plugged in.

Problem	Possible Cause	Solution
Remote control unresponsive.	Batteries low/dead; infrared sensor blocked.	Replace remote control batteries. Ensure no obstructions between remote and microscope sensor.
No image on external HDMI display.	HDMI cable loose/faulty; incorrect input selected on TV/monitor.	Check HDMI cable connections. Select the correct HDMI input source on your external display.

7. Specifications

Feature	Detail
Model Number	AD407-Pro-JP
Screen Size	7 inch IPS LCD
Video Resolution	2160P UHD
Image Sensor	4 Megapixel
Magnification	Up to 270x
Stand Dimensions (AD407-Pro)	7 x 7.8 x 13 inches (18 x 20 x 32 cm)
Item Weight	4.66 pounds (2.12 kg)
Light Source	8-level Adjustable LED Lights
Material	Metal
Storage Support	Micro SD card (Class 10, up to 64GB)
Output Ports	HDMI, USB
Compatible Devices	Television (via HDMI)



Figure 7.1: Product Dimensions

8. Warranty and Support

Andonstar provides professional after-sales service for this product. For any inquiries, technical support, or warranty claims, please contact Andonstar customer service. Refer to the contact information provided in your product packaging or visit the official Andonstar website for assistance.

Note: The product comes with a 24-hour professional after-sales service as stated in the product features.

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