

CA800 Series Embedded Camera

User's Manual



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Chapter 1 Notes and Safety Requirements

1.1 Cautions and Notes

- To avoid danger or damage incurred to the lens, do not touch the lens or sensor directly with your fingers.
- To avoid failure or electric shock hazard and so on, do not disassemble or modify the internal structure of the device.
- Do not plug in or unplug the Power connection port when hands are wet.
- Do not use alcohol and other organic solvents to clean.
- If the lens or sensor is dirty or damp, you should better use dry and non-linen fabric or professional lens tissue to wipe them. To avoid scratches on the surface, do not touch the lens with your fingers. Wipe the lens or sensor lightly.
- The products are not specifically designed for an outdoor use. Do not expose it to outdoor environment without any protection. Excessive temperature and humidity will damage the lens. Please avoid using the product under the following environment: high temperature or high humidity environment, places with direct sunlight, dirt or vibration and places near heat source.
- Please use and store in the following environment:
 - Operating temperature : 0°C~ 40°C
 - Storage temperature: -20°C~ 60°C
 - Operating Humidity: 30~60%RH
 - Storage Humidity: 10~80%RH
- If any foreign matter, water or liquid enter into the device by accident, disconnect the Power line immediately. Please send it to the maintenance center and do not use the hair dryer to dry it by yourself.
- To prevent microscope from being tripped over or dropped, please put away the device's connect cable in use or standby.
- To avoid electric shock by accident, please power off microscope before you move your computer or laptop.
- The cleanliness of the device lens will directly affect clarity degree of contents from the computer screen during preview. Problems like various circles or spots on the screen may mostly be incurred by dirt on the lens. When cleaning, please use professional lens tissue or other professional detergent to clear the dirt on the lens.
- Registered trademark and copyright: Copyright ownership of this produc belongs to Lanoptik Technologies Ltd. Without written authorization of this company, any organizations or individuals shall not photocopy, print, or translation to another language to any part of this document.

Chapter 2 Software System Requirements

2.1 System Requirements under USB Work Mode

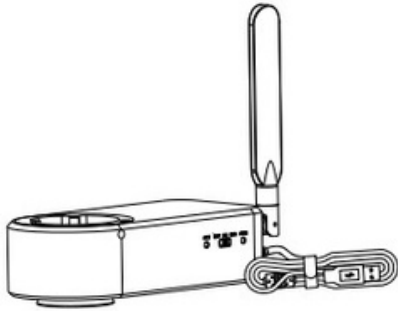
- Windows 7 (64bit), Windows 8 (64bit), Windows 8.1 (64bit), Windows 10 (64bit) , Windows 11 (64bit)
- Dual core 3GHz or higher CPU
- USB 2.0 high-speed interface or USB2.0 compatible interface
- At least 10 GB available hard-disk space
- 8G or more memory
- DVD-ROM driver (only needed when installing software)

2.2 System Requirements under WiFi Work Mode

- 5.0 or above version for Android system.
- 8.0 or above version for IOS system.
- Wireless network hardware must support the 802.11ac protocol (5G WiFi mode).

Chapter 3 Packing List

- 1. CA800 Camera



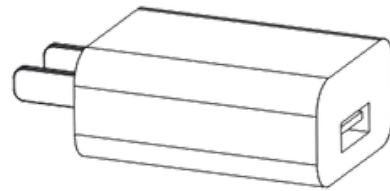
- 2.Hexagon key



- Installation Disk

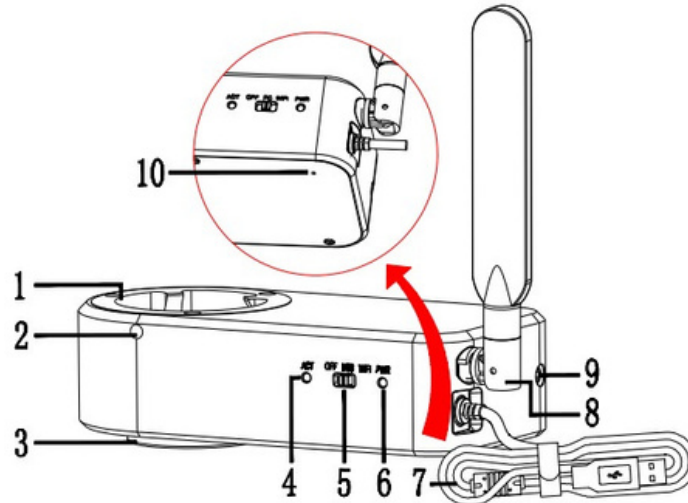


- USB Power adaptor



Chapter 4 Function Introduction of Each Part

4.1 Name and Function for Each Part of the Camera



1. **Female interface:** connected with the eyepiece end of biological microscope.
2. **Fastening screws:** tighten the screws with the hexagon key to fix the eyepiece end of the biological microscope.
3. **Male interface:** it is connected with the objective lens end of biological microscope.
4. **ACT indicator light:** when connect it via. WiFi, the blue light here flashes to start signal transmission.
5. **Power on/off:**
 - Switch to left: OFF ; the in Camera CA800 will stop working.
 - Switch to middle: USB Working mode. It will allow the in Camera CA800 connect to PC via USB cable.
 - Switch to right: WiFi Working mode. It will allow the in WiFi Camera Eyepiece connect to smart phones / tablets via WiFi.
6. **Power indicator:**
 - When the power is off, the red light is always on.
 - When switch to USB or WiFi working mode, the yellow light is always on.
7. **USB Cable:**
 - When switch to USB working mode, the USB cable is used to transmission data to PC.
 - When switch to WiFi working mode, the USB cable is used to powered by USB power plug.
8. **WiFi antenna:** enhance WiFi signal.
9. **Focusing screw:** turn the screw with hexagonal key to adjust the focal length.
10. **Reset hole:** the default settings can be restored by pressing with reset pin for 8-12 seconds.

Chapter 5 Product Assembly Guide

5.1 Camera CA800 Assembly

5.1.1 Assembly with biological microscope

1. Separate eyepiece part from objective part as shown in figure 1

- Loosen the fixing screw of the microscope.
- Remove the eyepiece part of the microscope.

2. Assembly the camera CA800 as shown in figure 2

3. Assemble eyepiece part of the microscope as shown in figure 3

- Place the eyepiece part of the microscope to the female interface of the camera CA800.
- Tighten the fastening screw.

4. Connect the integrated camera to the USB port of a computer, run the software and start using it. Please refer to User manual of Pixit Pro software.



Figure1

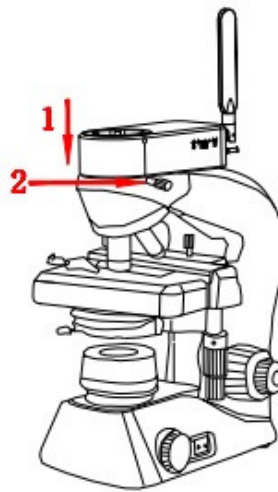


Figure2

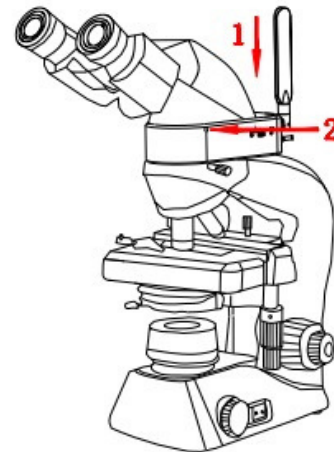


Figure3

5.1.2 Disassembly the Camera CA800

1. Reverse the assembly sequence

Chapter 6 Instructions

6.1 Software Installation

6.1.1 USB working mode

Through the download links provided with the packing box, please download Pixit Pro software. For the specific operation of software, please refer to the "User Manual of Pixit Pro_English"

6.1.2 WiFi working mode

1. Install KoPa WiFi Lab for Android system.

Method 1: Download KoPa WiFi Lab through the download links provided with the packing box.

Method 2: copy "KoPa WiFi Lab for Android"apk into Android system for installation.

2. Install "KoPa WiFi Lab"for iOS:

Download and install the "KoPa WiFi Lab" on apple's APP Store.

6.2 Device connection

1. USB working mode

- Plug the USB-A port of the USB cable into the USB port of computer.
- Switch the Camera to USB working mode.
- Run KoPa Capture Pro software if you are using.

For the specific operation of software, please refer to the "User Manual of Pixit Pro _English"

2. WiFi working mode

- Connect the USB cable to the supplied USB power plug.
- Switch the Camera to WiFi working mode. After about 20 seconds, the WiFi work indicator in the Camera stops flashing and stays on.
- Connected to WiFi name: WiFiCamera_5G_xxxxxx and input password: 12345678 to your smart phones/tablets.
- Run the APP "KoPa WiFi Lab"

3. HDMI working mode

- Connect the USB cable to the USB power plug to supply power to the camera.
- Turn the camera's toggle switch to the "USB" or "WiFi" position.
- Connect the camera to the HDMI display with an HDMI cable, and turn on the HDMI display to display the HDMI output.

6.3 Device connection

- Place a specimen on the microscope table and adjust the eyepiece diopter to the minimum value. Using a 10X objective lens, it is recommended to focus on any black spot/or the darkest spot on the section until it is most clear.
- (Use the hexagon key to finely turn the focusing screw (adjust the focus length), until live preview from the software is clear, parfocalizing is done now.

6.4 Start to use

The camera is ready

Chapter 7 Disclaimer

1. In order to protect the legitimate rights and interests of users, please carefully read the instructions, disclaimers and safety instructions provided with this product before using it. The company reserves the right to update the above documents. Please operate the product according to the instructions and safety instructions.

2. Once you begin to use the product, you shall be deemed to have read, understood, recognized and accepted all terms and contents of the product's instructions, disclaimers and safety instructions. Users undertake to be responsible for their actions and all consequences. User undertakes to use the product only for legitimate purposes and agrees to these terms and any relevant policies or guidelines that the company may establish.

3. In the process of using this product, please strictly abide by and execute the requirements including but not limited to the instructions and safety instructions. All personal injuries, accidents, property losses, legal disputes and other adverse events that cause conflicts of interest caused by violation of the safety instructions or irresistible factors shall be borne by users themselves, and the company shall not assume any responsibility.

4. Safety instructions:

- Please do not use wet hands to plug and unplug the power supply of the equipment.
- Please be sure to use a regular brand power socket, and make sure the grounding is well grounded to prevent electric shock.
- Please be sure to make regular safety checks on sockets and plugs to avoid potential electrical safety hazards caused by aging and short circuit.
- Please be sure not to use the product in a humid or hot environment to ensure the safety of the product.
- Please be sure to loosen bundle cords of the power cable before using, to avoid electromagnetic induction and heating, thus increasing the heat dissipation speed.
- Please be sure not to use the product equipment or socket or other places in high or easy to fall, so as to avoid damage.
- Before opening the socket power supply, please be sure to turn off the load power switch of the product equipment.
- The company reserves the rights to improve product, upgrade technology and change parameters without prior notice.

Specifications are subject to change without any obligation on the part of the manufacturer.



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