



ENGLISH

Smartphone-Displayed  
360° Articulating  
Industrial  
Endoscope



\* Smartphone **Not** included

## ZMG122 **User Manual**

*Thank you for purchasing our ZmartGear smartphone-displayed 360° Articulating Industrial Endoscope. Before using your new endoscope, please read this manual carefully.*

## Product Layout

- ① Flexible Insertion Tube
- ② Camera
- ③ \* 360° Articulation Mechanism
- ④ Smartphone Holder
- ⑤ Indicating Light
- ⑥ Camera LED Control
- ⑦ Image Capture
- ⑧ Damping Adjustment Knob
- ⑨ Articulation Control Wheel
- ⑩ Handle
- ⑪ Type C Plug
- ⑫ \* Type C to Lightning Adapter

### \* 360° Articulation Mechanism

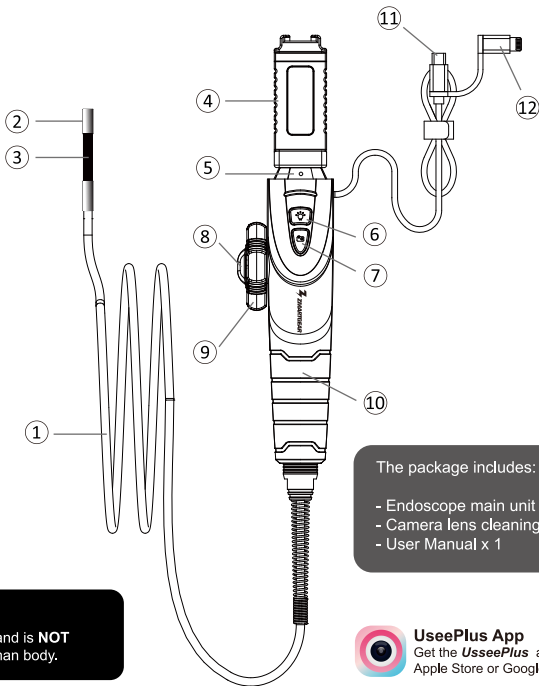
The Articulation Mechanism rotates 180 degrees left and right, 360 degrees total.

### \* Type C to Lightning Adapter

To connect to an iPhone with a Lightning port, a Type-C to Lightning adapter is required.

## Warning

This product is an industrial use video endoscope and is **NOT** intended for medical use or examination of the human body.



### The package includes:

- Endoscope main unit x1
- Camera lens cleaning cloth x 1
- User Manual x 1



### UsseePlus App

Get the **UsseePlus** app on the Apple Store or Google Play Store

## Download UseePlus App

To begin using your ZMG122 Industrial Endoscope, please download the **UseePlus App**, which transforms your smartphone screen into a live monitor for the endoscope. This application is ready for immediate use, with **NO** registration required.

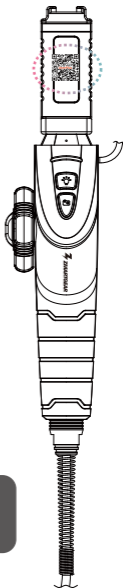
Simply scan the QR code positioned in the middle of the Smartphone holder or the QR code as shown below using your smartphone's camera.



You can search for and download 'UseePlus' directly from the Google Play Store or the Apple App Store.

### \* NOTE

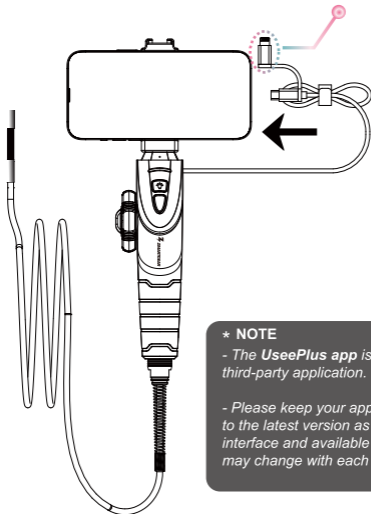
*UseePlus App is ready for immediate use.  
NO registration required!*



## Connect to your Smartphone

First, open the UseePlus App. Mount your smartphone in the phone holder on the handle of ZMG122, then insert the Type-C plug into your smartphone's Type-C port to **power on** the device.

*Remark: For iPhone with Lightning port, this Type-C to Lightning adapter is required.*



### \* NOTE

- The **UseePlus app** is a third-party application.
- Please keep your app updated to the latest version as the interface and available features may change with each update.

## Connect to your Smartphone

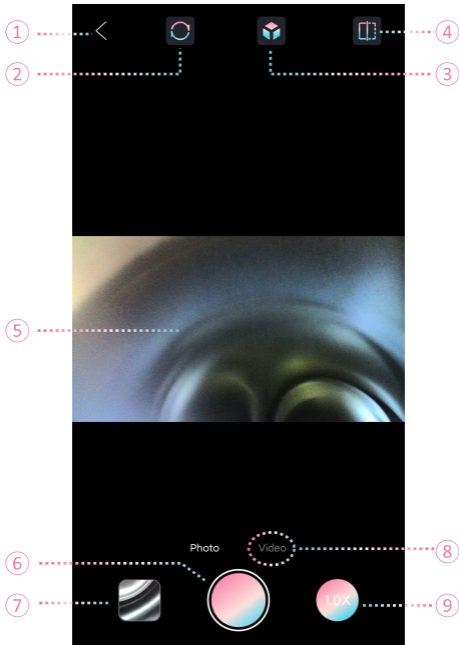


The first time you use the **UseePlus App** with the ZMG122 Endoscope, you will need to manually confirm connection after physically connecting via Type-C or Lightning port.

By checking the 'Use by default for this USB device' box, the app will automatically display the live camera feed each time the device is connected.

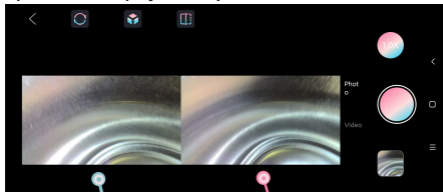
Upon successful connection, the ZMG122 Endoscope's live camera feed will be displayed on your smartphone screen. Within the UseePlus App, you can capture photos and videos, zoom in, compare before and after images, generate image comparison reports, and more.

## Guide to UseePlus App Operations



- ① **Return icon:** Tap this icon to return to the previous or the main menu
- ② **Screen Rotate:** Tap on this icon once during live viewing will rotate the screen by 90 degrees. This allows you to view the image or video from any desired angle.
- ③ **Color/Grayscale mode switch:** Tap on this icon to switch between color and Grayscale modes. The Grayscale mode improves defect visibility by removing color distractions and emphasizing contrast through grayscale variations. This is particularly useful for detecting minute cracks in metal welds (less than 0.1mm), identifying corrosion within dark pipes, and revealing scratches on reflective materials like polished metal.
- ④ **Standard view mode:** Live camera view in standard view mode.
- ⑤ **Standard view mode and comparison mode switch:** Tap on this icon to switch between standard single-screen view and comparison mode. **In comparison mode**, you can compare real-time imaging with baseline references or recently captured image, utilizing a **split-screen** display for intuitive defect visualization.

### Split-screen display in Comparison mode



Live view

Baseline image or recent captured image for comparison

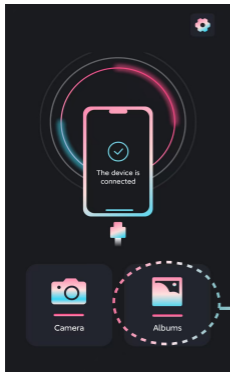
- 6 Photo capture/Video recording:** In Photo mode, tap this icon to capture an image. In Video mode, tap this icon to start or stop video recording.
- 7 Album access:** Tap this icon to access Albums.
- 8 Video Mode:** Tap this icon to enter video mode. Video recording is available in video mode.
- 9 Zoom In:** Tap this icon to zoom in 1.5x, up to 2x maximum. Tap again to return to original size.

**\* NOTE**

*Captured photos and videos are saved to your smartphone's local storage. Access them directly through Albums in the UseePlus App.*

## Generate & share reports

### Main menu

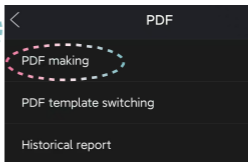
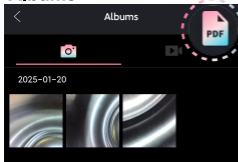


To generate a report, first access "Albums". You can tap the "**Album access**" icon to enter Albums directly.

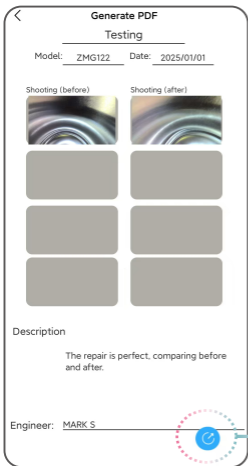
Or tap the "**Return icon**" to return to the **main menu** and then tap "Albums".



# Albums



Tap the “**PDF icon**” in the top right corner, then select “**PDF making**” to create and generate a report.



## Share Report

After generating the comparison analysis report, tap the 'Share' icon in the bottom right corner to share the report with relevant personnel.



# Endoscope Handle Operation Guide

## Articulation Control Wheel

±180°

Rotate the “Articulation control wheel” to pan the camera left or right. The maximum rotation angle is 180 degrees in each direction, covering a total of 360 degrees.


2-Way Articulating  
Max. ±180°

## Damping Adjustment Knob

The damping adjustment knob controls the resistance of the “Articulation control wheel”. Low damping is suitable for rapid scanning, while high damping is ideal for precise positioning.




## Camera LED Control

Press the  button once to turn on the light, press again for medium brightness, and once more for maximum brightness. Pressing it again will turn off the light. Subsequent presses will cycle through turning on the light, adjusting to medium brightness, reaching maximum brightness, and turning off the light again.



## Image Capture

Press the  button once to take a photo. This handle button does **Not** support **video recording**. For video recording please use the UseePlus app's touchscreen interface on your smartphone screen.

### \* NOTE

*Captured photos and videos are saved to your smartphone's local storage. Access them directly through Albums in the UseePlus App.*

### \* NOTE

*The ZMG122 Industrial Endoscope features overheat protection. If the temperature exceeds 90°C, a buzzer will sound a warning, and then will automatically power off.*

### **Disposal of electronic waste**

Electrical and electronic equipment (EEE) contains materials, components and substances that can be hazardous and harmful to human health and the environment when electrical waste and electronic equipment (WEEE) is not disposed of properly. Products marked with the crossed-out bin below are electrical and electronic equipment. The crossed bin symbolizes that waste is electrical and electronic equipment must not be disposed of with unsorted household waste, but must be collected separately.

All municipalities have set up collection schemes where waste electrical and electronic equipment can be delivered free of charge by citizens to recycling stations or other collection points or collected directly from households. Further information must be obtained from the municipality's technical administration.

Users of electrical and electronic equipment shall not dispose of waste electrical and electronic equipment with household waste. Users shall use municipal collection schemes to reduce the environmental impact of the disposal of waste electrical and electronic equipment and to increase the possibilities for reuse, recycling and recovery of waste electrical and electronic equipment.



## **FAQ**

### **Q1: Blurry or Unclear Imaging?**

1- Gently wipe the lens surface with a non-abrasive microfiber cloth (included in the package).

2- Optimize Working Distance. This is a fixed-focus endoscope optimized for 5–50mm close-range inspections. Maintain proper distance: Move the probe closer/away until optimal clarity is achieved.

### **Q2: No Image After Prolonged Use?**

Overheat Protection Activated. Immediately disconnect the device from your smartphone to power it off and allow 10–15 minutes for cooling. And then re-connect it to your smartphone. Avoid sustained use >2 hours in high temperature environments.

For any loss of image, try resolving the issue by physically reconnecting the device to your smartphone.



## Safety Precautions:

This product is an industrial use video endoscope and is **NOT** intended for medical use or examination of the human body.

**Handle with Care:** Avoid dropping or subjecting the camera probe to strong impacts. Don't forcefully pull or tug on the cable, as this can damage the device.

**Mind the Environment:** Avoid using the device in extreme temperatures, high magnetic fields, or intense light conditions. These can compromise the device's performance or even damage it.

**Protect From Chemicals:** Do Not use this device in corrosive chemicals or organic solvents such as gasoline and acetone. This will damage the device's housing and shorten its lifespan.

**Temperature Control:** Don't expose the product to extreme cold or heat (below  $-10^{\circ}\text{C}$  or above  $60^{\circ}\text{C}$ .) as this can shorten its lifespan.

**Cleaning:** Use only soft, dry cloths to clean the device. Avoid harsh chemicals or abrasive cleaners, as these can damage the surface.

**Long-Term Storage:** The flexible probe/tube can be shaped, but avoid sharp bends or right angles as this may cause it to fracture and become unusable. After use, return the probe to its initial 0-degree bending state. Prolonged bending when Not in use can cause damage.

**Note:** *Improper use of the product may lead to product damage or potential risks to personal and property safety. We will **NOT** be held responsible for any consequences and legal liabilities resulting from consumer violations of product operating instructions.*

## Specifications

- . Lens Diameter: 3.9 mm
- . Viewing Angle: 80 degree
- . Zoom Ratio: 2X
- . Sensor Size: 1/9 inch
- . Cameras Resolution: 1280 x 720
- . Cable Length: 1 Meter
- . Probe type : 2-Way Articulating
- . Input: 5V DC/350mA Max.
- . Waterproof of Lens/Cable: IP67



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