



# UESCOPE<sup>®</sup> 2

## User's Manual

Model VL460

Please read this manual thoroughly before using the product and keep the manual properly for future reference. Information in this manual may change at any time without prior notice. You may visit <https://www.uescope.com> for the most updated manual and contact information.

When using the product, please strictly follow the instructions and properly carry out maintenance, which will greatly reduce the occurrence of faults and prolong the service life of the product. Since the product is being improved continuously, the appearance or specifications of the product may be different from that stated in the manual without prior notice.

Caution: Federal law restricts this device to sale by or on the order of a physician, dentist or other licensed practitioner.

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# Contents

- Introduction** ..... **1**
  - Product Description ..... 1
  - Component and Specification ..... 1
  - Environmental and Operating Conditions ..... 3
- Operating Instructions** ..... **4**
  - Getting Started ..... 4
  - Touch Screen Menu ..... 5
  - Recording Photos and Videos ..... 6
  - Data Retrieval ..... 6
- Cleaning and Maintenance** ..... **7**
  - General Guideline ..... 7
  - Cleaning Monitor ..... 7
  - Storage and Transportation ..... 8
- Troubleshooting** ..... **9**
- Warranty** ..... **10**

# Introduction

## Product Description

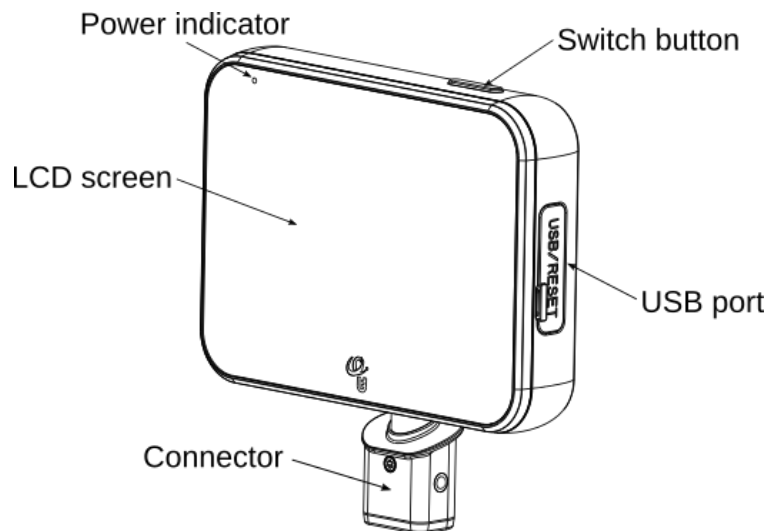
The UESCOPE<sup>®</sup> VL460 Video Laryngoscope (the device) is a handheld medical device that uses video camera to allow the operator to indirectly visualize the glottis and larynx on the screen. The device is an ideal tool for the examination of the upper airway and for the placement of tracheal tubes. It is also very helpful for the teaching and clinical training of tracheal intubation in both regular and difficult airway.

## Component and Specification

The device kit consists of one LCD *monitor* mounted directly on top of a single-use video laryngoscope blade, a USB charger and charging cable. Unpack and check for any visible signs of damage that may have occurred during shipment. In the event of signs of damage do not use the laryngoscope and inform your local distributor.

### Monitor

The monitor has a power switch, 3" color touch screen, USB-C data and charging port, reset pinhole, and a connector where a single-use blade is mounted. It can take both still photos and videos and store them in its built-in internal memory. Saved image files can then be transferred to a computer via an established USB connection. The monitor can be used in conjunction with other visualization equipment provided by our company to display real-time image.

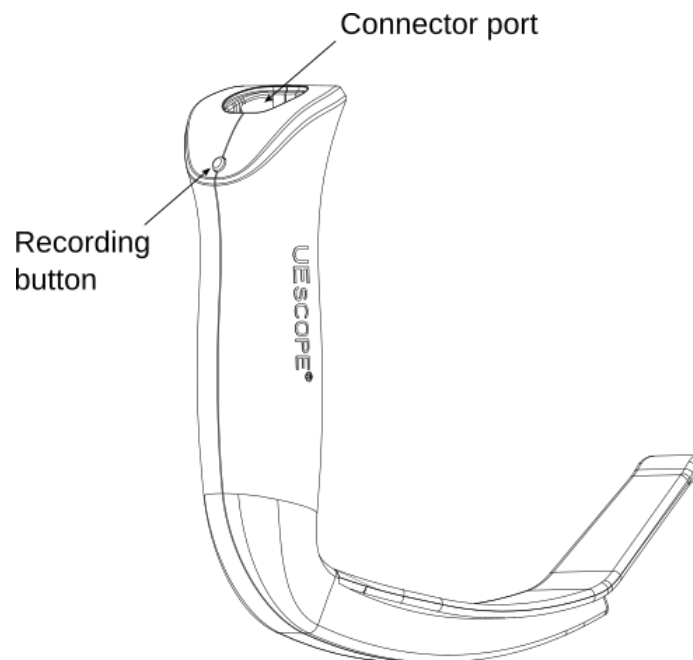


## SPECIFICATION

Display	3" LCD touch screen (720x480 px)
Tilt and Rotation	0°–110° tilt, 0°–270° rotate
Memory	32 G internal
Power Consumption	2 W
Waterproof Rating	IPX3
Weight	150 g
Battery	Lithium-Ion rechargeable, 2250 mAh
Battery Life	200 minutes on a full charge
Charging Time	up to 3 hours

## Single-Use Video Blade

Video blades are available in various sizes for all age groups and for single use only. Each blade has a recording button for taking photos or videos.



## SPECIFICATION

Sizes	D0, D1, D2, D3, D4
Camera	CMOS (1MP)
Angle of View	60°
Light Source	High intensity LED
Illuminance	≥ 150 Lux

Weight | 39–55 g

## Charger & Cable

The device shall only be charged using the factory provided charger and USB charging cable.

### SPECIFICATION

Charger Input	100–240 VAC, 50/60 Hz
Charger Output	5 V 2.1A
Cable Interface	USB-C to USB-A



Do *not* use the device while charging.

## Environmental and Operating Conditions

The device is designed for medical applications. Always respect the conditions specified for storage and operating environments. The device must be prevented from adverse external effects such as strong electromagnetic radiation, excessive force, or high temperature. The device shall not be used in places where there are fire hazards, or in the presence of flammable anesthetic mixture.

### WORKING ENVIRONMENT

Temperature	5°C–40°C (41°F–104°F)
Humidity	10–90%
Atmospheric Pressure	860–1060 hPa

### TRANSPORTATION AND STORAGE ENVIRONMENT

Temperature	-40°C–55°C (-40°F–131°F)
Humidity	≤93%
Atmospheric Pressure	500–1060 hPa

# Operating Instructions

## Getting Started

Please note that the devices are supplied *non-sterile*. Refer to the Cleaning and Maintenance chapter for how to clean the device and accessories before using on patient for the first time.

## Charge the Battery

It is highly recommended to fully charge the device before the first operation, using provided charger and charging cable. During the charging, a flashing green power indicator indicates that charging is in progress, while a steady green one indicates that the device has been fully charged.

During the long-term standby, the battery shall be checked and recharged if necessary once every 2–3 months.

## Power On

Insert monitor's connector into the connector port of video blade until hearing a prompt sound. Press and briefly hold the power switch for 2–3 seconds to turn on the device. A bright LED light should appear from the tip of the video blade where the camera locates.

The company logo should appear on the screen for a few seconds. Then the following picture and a clear image taken by the high definition camera will be shown.



Observe the screen to verify the device's date and time. Use on-board menu to adjust the device's setting if needed.

## Touch Screen Menu

The device's touch screen implements an on-board menu for settings and functions.

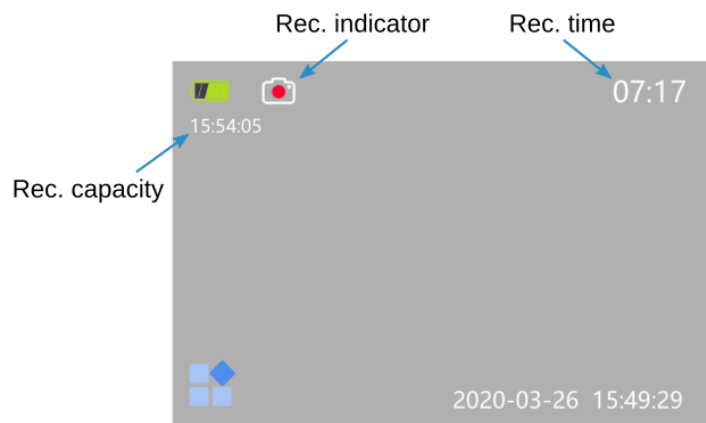
MENU ITEM	DESCRIPTION
<b>PHOTO</b>	Controls to review or delete photos
<b>VIDEO</b>	Controls to review or delete videos
<b>SETTING</b>	
<b>TIME</b>	Controls to adjust date and time
<b>SET</b>	
Enable Freezing	When enabled, imaging will be retained when taking a snapshot until recording button is pressed one more time.
Enable Mirroring	When enabled, imaging will be flipped upside-down each time the switch button be pressed.
Enable Auto Recording	When enabled, video recording automatically starts when the device is turned on.
Enable Auto Shutdown	When enabled, monitor will automatically power off after 10 minutes of inactivity. Press any button to reset the timeout.
<b>IMG</b>	Controls to adjust screen's luminance, saturation, and contrast.
<b>SYS</b>	
Enable AV-OUT	Output composite video signal from USB port.
Language Setting	Change system's language.
Erase All Files	Clear the data storage space.
Restore Default Setting	Restore the device to factory settings.
<b>WIFI</b>	
WiFi Connection	Turn on/off WIFI signal output.
SSID & Password	WIFI's access ID.
Version	Current firmware's version number.
<b>RETURN</b>	Exit the menu



## Recording Photos and Videos

The device can record both photos and videos to its built-in memory, in a resolution of 1088 × 720 pixels. Saved files can then be transferred to a computer through established USB connection.

Take a Snapshot	Short press the recording button. A snapshot icon appears briefly at the upper left corner of the screen, indicating a still photo has been taken and saved.
Record a Video	Long press and hold the recording button until the red recording indicator appears, indicating a video recording is in process. Double press the recording button to exit video recording mode.



The recording capacity counter indicates the maximum duration of recording available to make. After the memory is full, users need to manually clear the memory space for future storage, either through the on-board touch screen or using a computer.

**i** For pre-hospital EMS settings, it is highly recommended to enable device's both Auto Recording and Auto Shutdown settings.

## Data Retrieval

Connect the monitor to the computer using provided USB cable. A USB icon will appear on the screen indicating a successful connection has been established between the device and the computer.

Open the REMOVABLE DISK folder in the computer to access the data. The recording has been saved in either MOV format or JPG format, ready for simple editing and file upload.

# Cleaning and Maintenance

## General Guideline

The UESCOPE® VL460 Video Laryngoscope must be cleaned, disinfected, or sterilized prior to the first use and after each use. Cleaning, disinfection, and sterilization methods listed in this manual are recommended by the factory based on the efficacy of disinfectants and their compatibility with the device materials.

UE Medical makes no claims regarding the efficacy of the detergents, disinfectants, and the instrument. It remains the responsibility of the operator to ensure that the reprocessing procedures are performed following the chemical and instrument manufacturer's instructions and guidelines to achieve the desired result. This normally requires validation and routine monitoring of the process.



Always follow the instructions on the detergents, disinfectants, and instrument's label to ensure safety and efficacy.



DO NOT AUTOCLAVE. Do *not* attempt disinfection/sterilization in a temperature above 60°C. Doing so will permanently damage the device and void the warranty.



The monitor is *not* waterproof. It is strictly prohibited to submerge or expose the monitor to excessive amounts of fluids.



The single-use video blades are for one-time use only. Do *not* reprocess.

## Cleaning Monitor

The monitor is considered a non-critical device and normally requires a rapid disinfection:

1. Make sure the monitor is turned off before cleaning.
2. Detach single-use blade from the monitor and dispose of properly.
3. Wipe clean video baton and monitor thoroughly to remove any visible debris and soil from all exposed surfaces.
4. Wipe down the monitor using disinfecting wipes. Recommended disinfecting wipes include 70% Isopropyl alcohol wipes, CaviWipes, or Super Sani-Cloth Germicidal Wipes (Purple Top). Always follow the wipe manufacturer's written instructions to achieve proper disinfection.
5. Dry all surfaces with sterile gauze. Store the monitor in aseptic clean pouch for next use.

## Storage and Transportation

The device should be cleaned immediately after use, and be stored in suitable containers in accordance with local practice guidelines.

During transportation, the device shall be kept clean and free from pollution. Containers used to transport devices should be durable and suitable for decontamination. It is strictly prohibited to immerse in rain and snow. It should be stored in a well-ventilated room without harmful gas, outside biological invasion.

# Troubleshooting

The device is generally reliable and simple to use, requiring minimal maintenance for extended periods. However, the following is provided to help dealing with unexpected device conditions:

Will Not Turn On	Recharge the battery, or contact customer service to arrange for a battery replacement.
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Program Stuck	Gently insert a small pin into the pinhole opening adjacent to the USB-C port. Apply a small amount of pressure to reset the device.
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If problem remains, please contact local distributor or our customer service for further diagnostics and repair.



Do not disassemble the device without manufacturer's authorization. To do so will impair patients safety and void the warranty.



In order to prevent infection and to ensure the safety of maintenance personnel, all equipment should be completely cleaned and properly disinfected before returning to our customer service.

## Warranty

UE Medical warrants the original purchaser that the device will be free from defects in material and workmanship. This warranty applies for *two* years from the date of shipment from UE Medical Devices, Inc. This warranty applies only to the original purchaser of the device.

This warranty does not apply if the product has been damaged due to improper cleaning and handling, neglect, misuse, accident, or unauthorized repair.

