

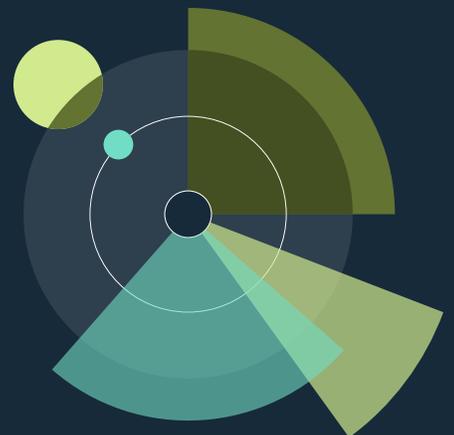


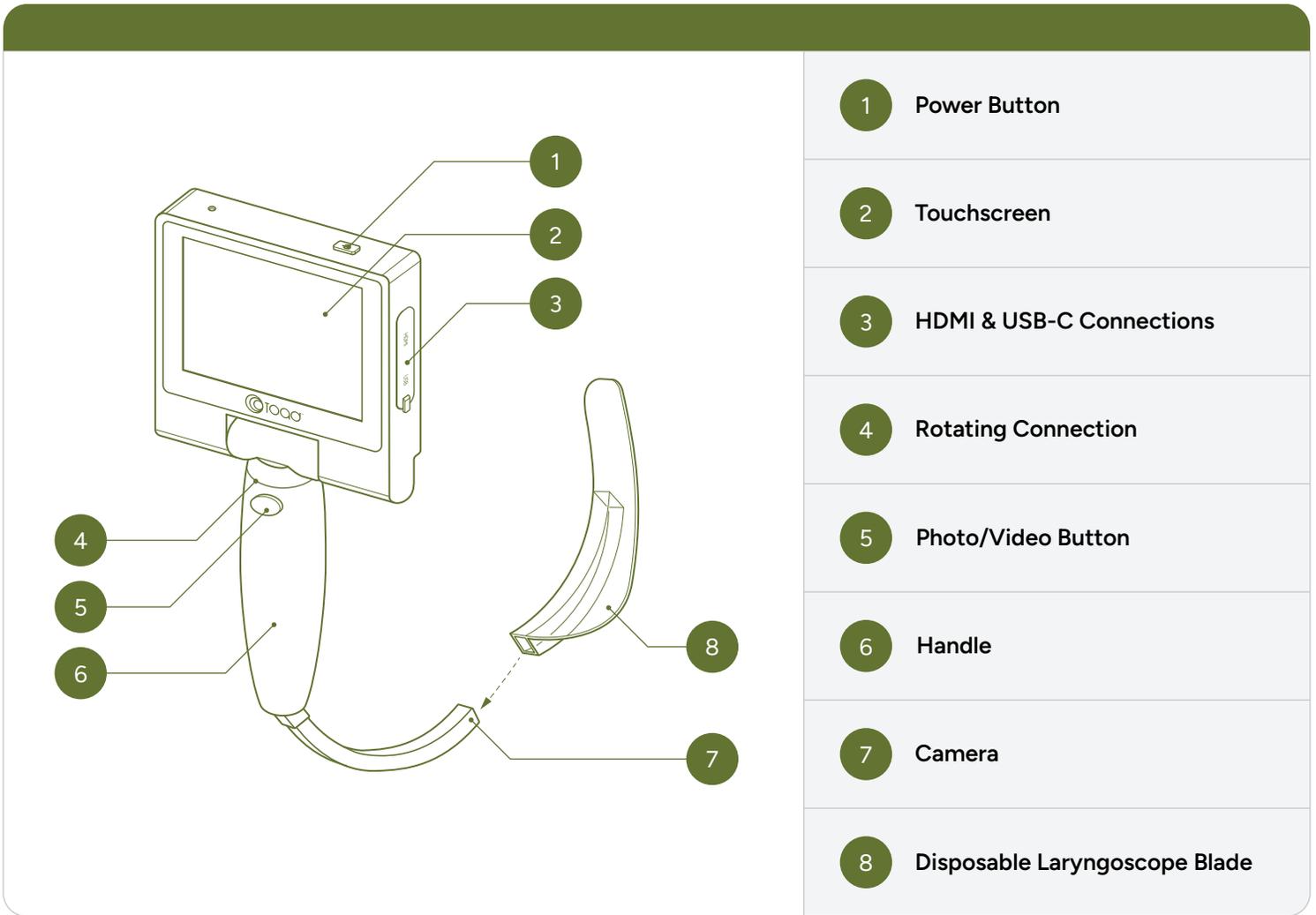
Airway Management Simplified

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INSTRUCTIONS FOR USE

# Video Laryngoscope





## Product Description

The TOAD™ Video Laryngoscope is a device used to aid in the intubation of the trachea consisting of a rechargeable 3.5 inch LCD monitor, USB-C charging cable, and a hard cover portable case. There is also a detachable video laryngoscope handle which accommodates a disposable laryngoscope blade. A soft plug covers the HDMI and USB-C connection points when not in use to protect against dust and moisture.

**TOAD™ Video Laryngoscope Product Number:** S-VL-01  
**Disposable Laryngoscope Blade Product Numbers:** **MAC 1:** VLB01  
**MAC 2:** VLB02  
**MAC 3:** VLB03  
**MAC 4:** VLB04  
**MAC5 Hyperangulated:** VLB05

# Technical Data

## Display Host

Specification	Description
Screen Size	3.5 Inch
Display	TFT-LCD
Resolution	640x480 pixels
Video Refresh Rate	30 fps
Handle Rotation & Extension	Left/Right Rotation = 270° (±5%)   Up/Down Extension = 150° (±5%)
Function	Photo / Video / Review / Replay / Time / HDMI
Memory	32G SD Memory Card
Data Transfer	Type-C Cable

## Battery

Specification	Description
Type	Rechargeable Lithium-Ion Battery
Working Time	≥120 Minutes
Voltage	3.7V
Capacity	2000 mAh
Life Circle	≥500 Charges
Charging time	≤3 Hours

## Camera Lens

Specification	Description
Field of View	70° (±15%)
Illuminance	≥500 Lux
Resolution	1280x720 pixels

## Power Adapter

Specification	Description
Input	100-240V ~ 50/60 Hz
Output	5.0V, 1.0A

## Working Environment

Specification	Description
Temperature	5° C ~ 40° C
Humidity	≤80%
Atmospheric Pressure	600hpa ~ 1060hpa
Waterproof Grade	IPX7

## Transportation & Storage

Specification	Description
Temperature	-10° C ~ 55° C
Humidity	≤93%
Atmospheric Pressure	600hpa ~ 1060hpa

## Disposable Laryngoscope Blades

Size	Application	Product Number	Length (mm)
MAC 1	Infant	VLB01	102
MAC 2	Child	VLB02	110
MAC 3	Adult	VLB03	122
MAC 4	Large Adult	VLB04	133
MAC5 Hyperangulated	Difficult Airway	VLB05	122

Disposable blades are non sterile and come individually wrapped for single use.

## Saved Image/Video Export to Computer

- Connect provided USB-C cable from monitor to computer port and follow prompts to download.

## Power Adapter Requirements

- Charger Input: AC100-240V~ 50/60HZ 0.5A Max (for DP3501)
- Output meets: DC5.0V, 1.0A (for DP3501)
- Compliant with 3C certification

## Electrical Safety & Electromagnetic Compatibility

- Electrical Safety: This product complies with the requirements of IEC 60601-1:2005 + A1:2012, IEC 60601-2-18-2009
- Electromagnetic Compatibility: This product complies with the requirements of IEC 60601-1-2:2014

## Batteries & Chargers

Do as specified below to prevent battery leakage, overheating, burns, explosions, or electric shock or burns.

- The lithium battery is not fully powered in packaging. Make sure to charge battery fully for first time use.
- Do not let the battery sit uncharged for more than one month.
- Do not use a power adapter exceeding 5V, 1A for power supply to the host. If the voltage is too high, the fuselage will heat up. In severe cases, the host could fail, or cause damage to internal electronic components.
- Please do not charge using a fast charger.
- This product has a built-in 3.7V, 2000mAH (DP3501) lithium battery. Do not disassemble the display and remove the lithium battery.
- The battery icon of the host will flash when the battery is low.
- Use the data cable to connect the host and the power adapter to start charging. Charging time is about 3 hours.
- Battery disposal must be performed in accordance with all local and national regulations.

## Display

- Do not squeeze the display with excessive pressure. It may damage the display.
- In cold environments, the display may take a long time to activate, and image performance may be poor.

## Contraindications

- Do not use the TOAD™ Video Laryngoscope if unfamiliar or not proficient in airway rescue management and techniques.
- The TOAD™ Video Laryngoscope must only be used with compatible TOAD™ disposable laryngoscope blades.
- Do not connect the TOAD™ Video Laryngoscope to non-TOAD™ brand cables or connections.
- Do not connect the TOAD™ charging cable to monitor while in patient use.

## Warnings

- The TOAD™ Video Laryngoscope, like many airway devices may cause trauma, bleeding or disruption of tissues that could potentially result in severe injury or death.
- Placement of an endotracheal tube should follow standard acceptable airway management practice and guidelines.
- Only have the TOAD™ Video Laryngoscope connected to a wall outlet when not in patient use.
- Do not use this device if laryngoscope blades or lenses are cracked.
- Do not use this device if LED light does not turn on.
- Do not use this device if there is a camera failure, no image is seen or the device fails to work after charging.

## Caution

- Caution: Federal (USA) law restricts this device to the sale by or on the order of a physician.
- Do not use if device or package is damaged.
- Do not reprocess, alter or reuse the TOAD™ Video Laryngoscope. Reprocessing, altering or reusing may compromise the device's ability to perform as intended.
- This device is MRI unsafe and should not be placed at or near MRI.
- The performance of the TOAD™ Video Laryngoscope could be affected if in the presence of portable and mobile RF communications. Avoid strong electromagnetic or microwave interference.
- Strong sunlight could cause poor image display in LCD screen, it's not recommended to use the TOAD™ Video Laryngoscope in outdoor environments with strong sunlight.
- Do not flex, extend or rotate monitor beyond its designed endpoints:
  - Left/Right Rotation = 270° (±5%)
  - Up/Down Extension = 150° (±5%)

## Adverse Events

- All airway devices could stimulate patient to gag or aspirate.
- All airway devices may cause excessive pressure, ulcerations, tissue damage, nerve damage and puncture of vital airway structures.
- Misuse of this device can cause trauma, bleeding or puncture of vital tissues or death.
- This device may not be compatible with patients who are awake or semi-awake.
- This device is intended to be removed once intubation is complete.

## Pre-Use Checks

- Confirm contents of packaging.
- Prior to use make sure device is wiped down and cleaned with 70% alcohol solution.
- Always make sure the device is charged and in proper working order before use.
- Each individual patient medical history and present circumstances should be evaluated by a licensed practitioner prior to use. Risk-benefit ratios must be evaluated.
- It is incumbent to be familiar with this airway device and system prior to use.
- Inspect all airway devices prior to use.
- Do not contaminate packaging.
- Do not let the TOAD™ Video Laryngoscope or the disposable laryngoscope blade come in contact with foreign objects that may adhere while being inserted into patient.
- Examine all structures of the disposable laryngoscope blade and packaging to ensure it is not damaged. Discard if any defects are detected.
- Always maintain proper vigilance in maintaining and verifying adequate ventilation.
- Always practice in accordance with recognized airway management techniques and practices.
- As in all airway devices, always have a backup plan and multiple airway rescue management devices at your disposal.
- Always maintain clean technique and keep device inside packaging until just prior to use.

## Cleaning

- When cleaning, make sure to press the waterproof plug firmly into the HDMI and USB connection ports to prevent moisture from entering electrical connections.
- Wipe down and clean device with 70% alcohol solution.
- Do not immerse monitor into water or liquid solutions. It will cause irreparable harm and void warranty.

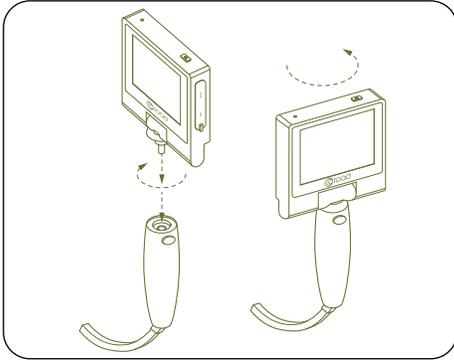
## Storage

- Electrical Safety: This product complies with the requirements of IEC 60601-1:2005 + A1:2012, IEC 60601-2-18-2009
- Electromagnetic Compatibility: This product complies with the requirements of IEC 60601-1-2:2014

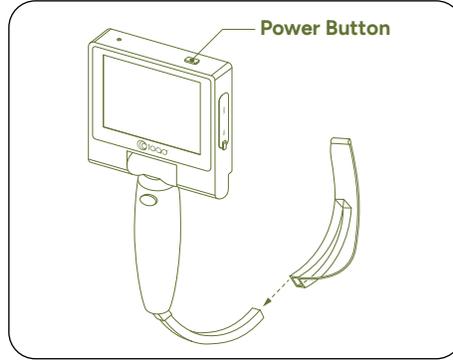
## Disposal

- A used TOAD™ Video Laryngoscope shall follow handling and disposal process for bio-hazard products, in accordance with all local and national regulations.

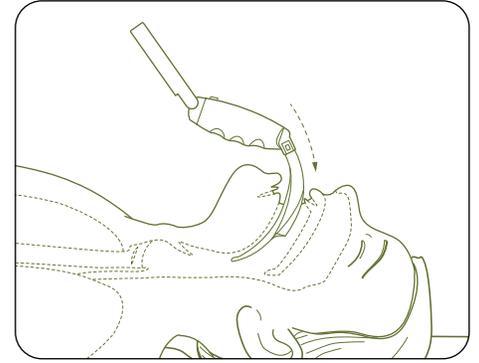
# Using The TOAD™ Video Laryngoscope



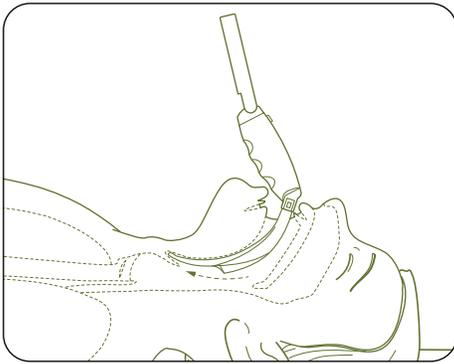
Hold monitor/connector in one hand and the handle/camera end in the other. Gently rotate monitor connector into handle connector until it starts to recess. Push both units together to engage. Rotate monitor back to desired position.



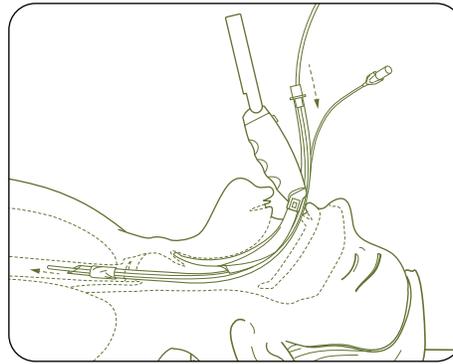
Once the unit has been properly cleaned and the appropriate sized blade has been attached, then turn on monitor by holding power button for approximately 3 seconds. To access settings, double-tap screen and tap desired icon(s).



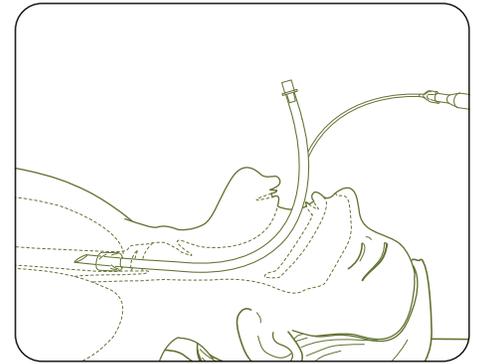
Insert Video Laryngoscope as in direct laryngoscopy. Sweep the tongue towards the midline and provide a pathway for a styletted endotracheal tube.



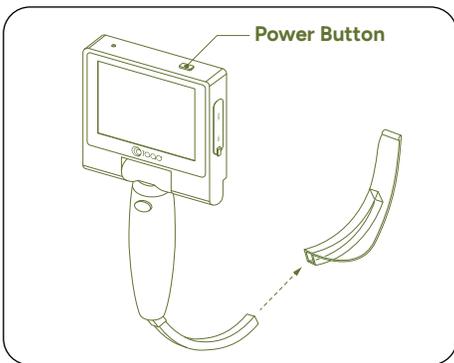
Now direct eyes to monitor and slowly advance the tip of the blade into the vallecula. Epiglottoscopy and guidance of the device should be familiar to the user.



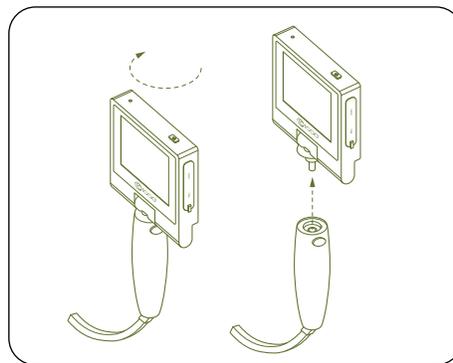
Advance a styletted endotracheal tube through the vocal cords to proper depth while viewing the monitor. A midline approach for video laryngoscopy could also be utilized.



Remove stylet from endotracheal tube and Video Laryngoscope. Inflate endotracheal tube cuff. Use standard acceptable airway management practice and guidelines to confirm proper endotracheal tube placement.



Turn off monitor by holding power button for approximately 3 seconds. Remove disposable blade sheath and dispose in accordance with all local and national regulations.



To detach monitor from handle, rotate back to line up position and gently lift up until unit separates.

**NOTE:**  
Repeat cleaning procedure after use.

# Troubleshooting

Problem	Analysis	Solution
Device will not power on	<ul style="list-style-type: none"> <li>Lithium battery voltage is too low</li> </ul>	Connect charger
No image	<ul style="list-style-type: none"> <li>The handle is not connected properly</li> </ul>	Re-insert the handle
Key failure	<ul style="list-style-type: none"> <li>Water/liquid erosion</li> <li>Interface failure</li> </ul>	Connect charger
Device will not connect to computer	<ul style="list-style-type: none"> <li>Data cable may be damaged</li> </ul>	Contact TOAD™
Display has crashed	<ul style="list-style-type: none"> <li>Inadequately charged</li> <li>Software crash</li> </ul>	Charge device and retry
Display is image distorted	<ul style="list-style-type: none"> <li>Monitor not properly connected to handle</li> </ul>	Always connect monitor to handle first, then power on device
Dark shadow appears in image background	<ul style="list-style-type: none"> <li>Soft tissue is too close to camera light source</li> </ul>	Redirect Video Laryngoscope within mouth
Epiglottis is downfolding within view	<ul style="list-style-type: none"> <li>Blade is advanced too far</li> </ul>	Withdraw Video Laryngoscope

## Manufacturer's Warranty

The TOAD™ Video Laryngoscope is warranted against manufacturing defects for up to twelve (12) months after time of delivery. Warranty is applicable only if purchased from an authorized distributor. TOAD™ will repair or replace defective parts for up to twelve (12) months after purchase date. This warranty does not cover abuse or neglect of products. TOAD™ reserves the right to determine the parameters of abuse or neglect.

**WM & DG DISCLAIMS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATIONS, THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**



Medical Device



RX Only



Single Use.  
Do Not Re-use



Does Not  
Contain DEHP



Do Not Use  
if Package is  
Damaged



Type BF  
Applied Part



Read Instructions  
For Use

### Reporting Problems or Adverse Events:

[info@toadairways.com](mailto:info@toadairways.com)

### Manufactured For:

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MADE IN CHINA



