



PVL-I

Pocket Video Laryngoscopes

User Manual



CONTENTS

Manufacturer Information	3
EU Representative:	3
Chinese Patents	3
Trade Mark:	4
Product Information	5
Pocket Video Laryngoscope Components	6
Control Key & Function	7
Transportation and Storage	7
General Device Specification	7
Warnings and Cautions	8
Applications	8
Intended Use	9
A Caution	9
Notice to Operators	9
Applicable Procedures	9
Clinical Application Tips	9
Intubation Instruction	9
Getting Started	10
Initial Inspection	10
Preparing for First Use	10
Charge the Battery	10
For optimal battery life	10
Proper Charging Procedure	11
Preparation (Loading and unloading batteries)	11
Perform a Functional Check	12
Time Settings	12
Data Retrieval	13
Battery power indication	13
Attaching the Single-Use Blade to the Pocket video laryngoscope	13
Detaching the single-use Blade from the Pocket video laryngoscope	13
The Features of single-use VL blade	13
Selecting the Correct Pocket Video Laryngoscope and its single-use VL blade	13
Cleaning, Disinfecting, and Maintenance	14
General Maintenance Information	14
Disinfection Instructions	14
Disinfection Procedure for Pocket Video Laryngoscopes (Wipe clean)	14
Cleaning the Data Transmission Cable	15

Warning	15
General Cleaning, Disinfection and Maintenance instructions (Table 5)	16
Trouble Shooting (Table 6)	17
Symbol Directory (Table 7)	17
Limited Warranty	18

Manufacturer Information

Hebei Vimed Medical Device Company, Ltd,

Address: Maikeshan Garment CO., East

North Ring RD. South

Yanjiao Developing Zone, Sanhe Shi

Langfang Shi, Hebei , 065201 China, PEOPLE'S RUPUBLIC OF CHINA

TEL: +86(316)3081859/3081860

FAX: +86(316)3081897

For additional contact information, please visit <http://en.vimed-mac.com/>

EU Representative:

Company Name: Supporting Health Care NV

Company Address: Hoofdkade 90, 9561 JK Ter Apel, The Netherlands

Tel. + 31 599 700232

<http://supportinghealthcare.eu/>

Chinese Patents

The Pocket Video Laryngoscope technology is protected under Chinese Patents. Applied Chinese Patents:

ZL201620082375.1

ZL201620082173.7

ZL201630543506.7

ZL201720246532.2

ZL201620573285.2

ZL201730166005.6

ZL201721893598.7

ZL201721128421.8

Information in this User's Manual and Quick Reference Guide may change at any time without notice.



Trade Mark:



Hebei Vimed Medical Device Company, Ltd. is the owner of above trade mark which is registered in China. All of our video laryngoscope products are marketed under this trade mark.

“POCKET VL” is a trade name of Hebei Vimed Medical Device Company, Ltd. And Supporting Healthcare NV.



Product Information

Name: Pocket Video Laryngoscope (PVL)

Model: PVL-I-01 /PVLI-02

The Pocket Video Laryngoscope (PVL) is designed to present a consistent, clear, real-time view of patient's airway to physicians, and to assist them in getting a quicker and safer tracheal intubation.

There are two different models of Pocket Video Laryngoscope (PVL-I-01 /PVL-I-02) available for different situations and/or different physicians. PVL-I-01 is suitable for baby and infant patients and PVL-I-02 for adult patients. Both of them are designed to be used with disposable blades which are known as “Single-Use VL Blade”.

The Pocket Video Laryngoscope is a portable, handheld and user-friendly medical device. Its “one-touch button” controls the device’s all functions such as On/Off, Photo-Taking and Video-Recording. Its 3” display monitor is completely foldable and two-way rotatable, which offers clarity for real-time viewing, optimal for image recording and analysis during tracheal intubation or the laryngopharynx examination and treatment. And the digital video output is ideal for display video recordings. The Pocket video laryngoscopes and their “Sing-Use VL Blade” are available in a wide range of configuration and size, allow clinicians to meet the requirements of patients ranging in size from preterm to morbidly obese. The device also incorporates a rechargeable 18500A lithium battery and an anti-fog mechanism. The 18500A battery is interchangeable. The water-resistance of VL handle is IPX7 and IPX4 for the 3” monitor.

Model & Size Difference

As mentioned above, PVL-I-01 is designed for babies & infants (see Fig. 1) and PVL-I-02 for adults (see Fig. 2) . They must be used with their own sterile disposable blades.



Fig. 1 Pocket VL PVL-I-01



Fig. 2 Pocket VL PVL-I-02

Pocket Video Laryngoscope Components

Table 1 PVL-I-01 (Infant-baby) standard configuration

Components	Qty/Unit	Model & Sizes	Remarks
Pocket video laryngoscope	1pcs	PVL-I-01	For baby & infant
Single-Use VL Blade	-	MD-0	Ordered separately
Single-Use VL Blade	-	MD-1	Ordered separately
Single-Use VL Blade	-	MD-1S	Ordered separately
18500A Li-ion Battery	2pcs	3.7 VDC 2040 mAh	Rechargeable
Data cable	1pcs	Magnetic USB	
Charger pack	1pcs	For 18500A Use only	
Packing box	1pcs	Carton	

Table 2 PVL-I-02 (Adult) standard configuration

Components	Qty/Unit	Model & Sizes	Remarks
Pocket video laryngoscope	1pcs	PVL-I-02	For adult patients
Single-Use VL Blade	-	MD-2	Ordered separately
Single-Use VL Blade	-	MD-3	Ordered separately
Single-Use VL Blade	-	MD-2S	Ordered separately
Single-Use VL Blade	-	MD-3S	Ordered separately
18500A Li-ion Battery	2pcs	3.7 VDC 2040 mAh	Rechargeable
Data cable	1pcs	Magnetic USB	
Charger pack	1pcs	For 18500A Use only	
Packing box	1pcs	Carton	

PVL-I-02 Key & Parts Typical Diagram

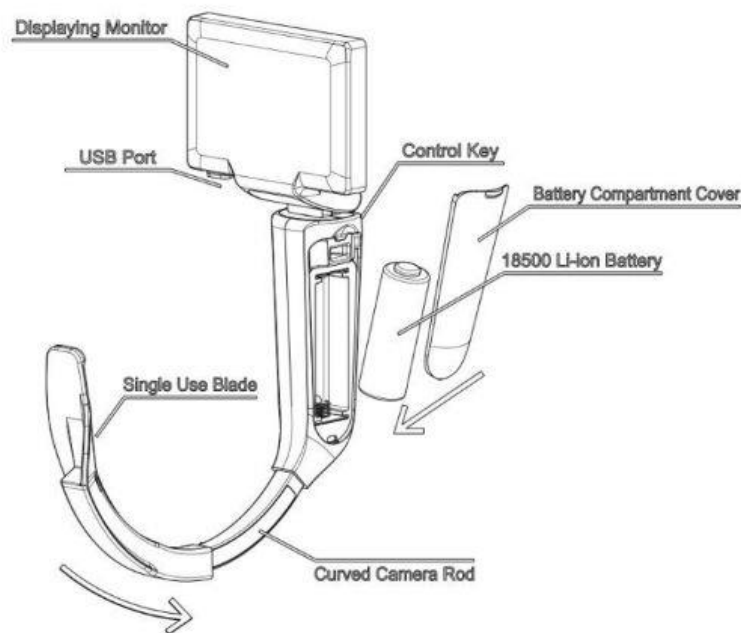


Fig. 3 PVL-I-02 KEY & PARTS TYPICAL DIAGRAM

Other Components



Fig.4 Charger Pack



Fig.5 Batteries

Control Key & Function

Table 3 “Control Key” and its functions

PVL-I-01 /PVL-I-02 Current State	Control-Key’s Operating mode	Aim at
OFF	Long-press 2-3 Sec	Turning on PVL
ON	Long-press 2-3 Sec	Turning off PVL
ON	Short press once	Photo-taking
ON	Continuously short press twice	Video-Recording
Video recording	Short press once	Stop video recording

Transportation and Storage

The Pocket video laryngoscope and its components must be operated and stored under the environmental conditions specified as following:

Operating Condition

Temperature:+5°C ~ +40°C (41°F~104°F)

Relative Humidity:0 – 80%

Atmospheric pressure:.....86 - 106kPa

Shipping and Storage Conditions

Temperature: -40°C ~ +55°C (-40°F~131°F)

Relative Humidity:0 - 93%

Atmospheric pressure:86 - 106kPa

General Device Specification

Classification: I

Safety: Class II

Battery Power (18500A Li-ion rechargeable): 2040mAh, 3.7Vd.c.

Operation Time: ≥240 min per fully charged 18500A Li-ion Battery

Display Monitor: 3”

Video Aspect Ratio: 4:3

Voltage Input: DC 3.7V

Current Input: 310± 10mA

Max Power: 1.8W

Illumination: >300lx

Charging mode adapter input: 100-240Va.c. 50/60Hz 0.4A

Charging mode adapter output: 5Vd.c. 2.1A

Type of Protection Against Electric Shock: Class II for adapter or internally powered equipment

Degree of Protection against Electric Shock: Type B applied parts
Interchangeable Battery Power: 18500A Li-ion rechargeable batteries
Mode of operation: Continuous
Applied Part: Single-use VL Blades or reusable blades

Warnings and Cautions

- A. This User Manual is applicable to both PVL-I-01 & PVL-I-02 Pocket video laryngoscopes (PVL). Every user must carefully read this manual before operating the PVL.
- B. For the first time using PVL, please make sure all of the components are fully furnished, and in good condition. If not, please contact the manufacturer and/or the distributors as soon as possible.
- C. Before using the PVL, please make sure the equipped 18500A Li-ion battery is fully charged. For the first time of charging the battery, it may take up to 6 hrs. Please use the equipped battery charger pack only.
- D. There is a battery power level indicator displayed on the screen. The battery power level is measured in terms of “bars”, which indicates the battery power level. When the battery is fully charged, there will be “3 bars” displayed on the indicator. When there is only “one bar” displayed on the indicator and the color of the indicator turned to “Red”, please replace the battery with a fully charged one immediately.
- E. For Pocket Video Laryngoscopes, there are a few different sizes ‘Single-Use VL Blades’ which are compatible with each of them. Before using the Pocket Video Laryngoscopes, please make sure:
-‘Single-Use VL Blades’ is suitable to the patient and compatible with the Pocket Video Laryngoscope.
-The package of the ‘Single-Use VL Blades’ is in good shape, if the package is broken, please discard the blade. Dispose of the used ‘Single-Use VL Blades’ as medical waste.
- F. Do not expose the Pocket video laryngoscope to humidity over 93%.
- G. Do not expose the Pocket video laryngoscope to temperatures over +55°C (131°F).
- H. Do not extrude data transmission cable.
- I. Do not heat or burn the 18500A lithium-ion battery.
- J. Instructions to check the outer surface of the ‘Single-Use VL Blades’ for rough surfaces, sharp edges or protrusions which may cause a safety hazard before using them.
- K. Do not disinfect the Pocket video laryngoscope using devices such as autoclaves, ultrasonic cleaners, or pasteurizers. The use of such methods to disinfect video laryngoscope will cause permanent damage and void the manufacturer’s warranty. Refer to the disinfection instructions.
- L. If you need details about the circuit diagram and component information, please contact us.
- M. The consumables should be used before the expiry date.
- N. The light-emitting area surrounding the camera of the video laryngoscope may exceed 41°C as part of normal operation. However, Continuous contact with the area surrounding the camera is unlikely because the product is typically not held stationary for an extended period of time exceeding 1 minute.

Note: Typical intubations are less than 1 minute in duration.

Applications

The Pocket Video Laryngoscope is the perfect tool for physicians and other healthcare professionals who need to effectively operate on difficult airways. The device is easy to use, learn, and teach. It integrates easily into standard ICU, ER, Respiration and Anesthesia departments of any medical institution. The device is also ideal for mobile patient transport units such as ambulances and helicopters.

The Pocket Video Laryngoscope makes intubation easier & safer. The advanced data recording unit helps confirm tube placement in clinical practices. Multiple blades, from preterm to morbidly obese, can meet any clinical requirements. Additionally, it is useful for verification of endotracheal (ET) position, nasal intubation, ET exchange, and teaching.

Intended Use

The Pocket Video Laryngoscope is intended for use by qualified medical professionals to obtain a clear, real-time view of the patient's airway during tube placement medical procedures.

A Caution

The Pocket Video Laryngoscope should be used only by individuals who have been trained and authorized by a physician or by health care providers who have been trained and authorized by the institution providing patient care.

Allergic to PC material, please use the Pocket Video Laryngoscopes with caution due to their disposable blades are made of PC (polycarbonate).

Notice to Operators

All operators should read this user manual in its entirety before operating the device. Failure to do so may damage the device and/or jeopardize the medical procedure.

Keep the user manual safe, operate the device according to this manual strictly.

Do not overcharge the 18500A Li-ion batteries.

Without the authorization from the manufacturer, no organizations or individuals may repair or dismantle the device or its parts. Otherwise, the product warranty will be void immediately.

The 18500A lithium-ion battery is rechargeable, reusable and recyclable, do not disassemble, refit, or dispose of the lithium battery arbitrarily.

Ensure high level of battery charged before operating.

The PVL is a precise instrument, handle with care.

Applicable Procedures

Normal or restricted oropharyngeal visualization and assessment of the oropharynx

Trauma airways - excellent when dealing with blood and secretions in the airway

Airway management in morbidly obese patients

Preterm and newborn or neonatal intubations

Re-intubation in Intensive Care Unit (ICU) settings Supervision and documentation of the laryngoscopy

Laryngoscopic foreign body removal

Awake intubation for difficult airway management

Teaching the anatomy of the airway in medical school

Clinical Application Tips

The intubation procedure may vary from patient to patient depending on the users' skill, experience and preference. Practical training of using Pocket Video Laryngoscope on a mannequin before clinical application is highly recommended. And the same technique may not be suitable for using PVL-I-01 Pocket VL to conduct the intubation on baby and infant patients.

Intubation Instruction

Important: Intubation with the PVL-I-02 Pocket video laryngoscopes should only be performed by or under direct supervision of trained medical personnel. The following intubation technique is just for your reference.

1. In the patients' mouth

Looking directly into the patient's mouth, holding the Pocket video laryngoscopes with the left hand, introduce the Pocket video laryngoscopes into the patient's mouth from the right side of the mouth. By moving the Pocket video laryngoscopes' blade slowly to push the patient's tongue to the left, get the blade gently down to the laryngeal pharynx.

2. Look at the display monitor

With the Pocket video laryngoscopes' blade inserted into the patients' mouth, look at the display monitor of the Pocket video laryngoscopes, slowly pushing the Pocket video laryngoscopes' blade forward along the middle of the oral pharynx, to identify the uvula, once seeing the uvula and then slightly lifting the VL forwards to obtain the best view of the glottis.

3. In the patients' mouth

Choose a suitable Endotracheal tube for the patient, and use a proper stylet to shape the tube's distal part with a 120° angle or even smaller. Then insert the shaped tube together with stylet into the patients' mouth from the right side of the patient's mouth.

4. At the monitor

Once the glottis can be clearly seen on the monitor, slowly insert the tube along the Pocket video laryngoscopes' blade, till the distal part of the tube appeared on the monitor and manipulate the tube gently till it reaching the glottis, then carefully insert the tube into the glottis.

IMPORTANT!

- ★ Please do not insert the VL blade too deep in the patients' mouth in the very beginning. Otherwise, the view of glottis can be easily missed.
- ★ The Pocket video laryngoscope is designed to be inserted down the midline of the tongue to the epiglottis. It can be used to lift the epiglottis, expose the glottis, and guide the medical intubation correctly.

Getting Started

Initial Inspection

Upon receiving the device and packing list, inspect the components of Pocket Video Laryngoscope for any obvious physical damage that may have incurred during transportation. We recommend that the inspection be performed by a qualified professional who is familiar with electronic medical devices. To verify that you have received the appropriate components, refer to the packing list included with the device. If any of the components are missed or damaged, notify the carrier and contact your local distributor immediately.

Preparing for First Use

Prior to using the Pocket Video Laryngoscope for the first time, perform the following steps:

Charge the Battery

There is a battery compartment inside the Pocket Video Laryngoscope's handle, where a 18500A Li-ion rechargeable battery can be placed to provide power to the Pocket Video Laryngoscope and the display monitor. The 18500A battery should be charged separately with the specially equipped battery charger pack. The video laryngoscope cannot be operational while charging the battery unless another fully charged battery is placed inside the compartment. To charge the 18500A battery, its charger must be connected to a wall socket.

IMPORTANT! The 18500A battery must be fully charged prior to its first use. For the customers' convenience the 18500A batteries equipped with the Pocket Video Laryngoscope are fully charged in our factory before shipped out.

For optimal battery life

There is a battery power level indicator displayed on the monitor's screen in terms of bars; When there is only "one bar" displayed on the indicator and the color of the indicator turned to "Red", please replace the battery with a fully charged one immediately. The battery should be charged with the equipped charger only at room temperature, between 5°C~40°C(41°F~104°F).

Proper Charging Procedure

- (1) Using the charger especially furnished with the Pocket Video Laryngoscope only to charge the 18500A battery.
- (2) There are two charging modes available: charging one battery or charging two batteries together.
- (3) Placing the battery or batteries into the charger's charging compartment, make sure the battery's anode is in the right position.
- (4) Connecting the charger to a transformer (output 5VDC, 1000mA), and plugging the transformer into wall socket (100~240V, 50~ 60Hz).
- (5) The charging status indicator will turn red, indicating that the charging cycle has begun. When the battery is fully charged, the charge status indicator will turn green.



Fig. 6

IMPORTANT! The magnetic USB port on the display monitor and the equipped USB cable are used for data communication only, not for charging

There are two charging modes available. This one is charging the single 18500A battery (see Fig. 6) . Placing one battery into the charger's charging compartment, make sure the battery's anode is on the right position. Then follow **Proper Charging Procedure** to complete the charging process.



Fig. 7

There are two charging modes available: This one is charging two 18500A batteries together (see Fig. 7). Place two batteries into the charger's charging compartments and make sure the battery's anode is in the right position. Then follow **Proper Charging Procedure** to complete the charging process.

Preparation (Loading and unloading batteries)

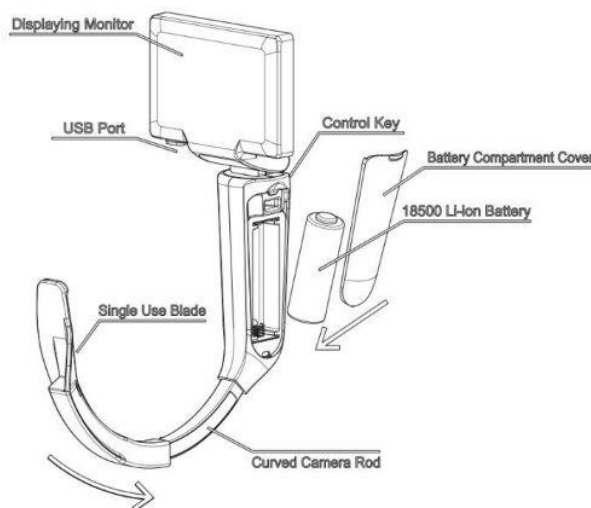


Fig. 8 PVL-I-01 & PVL-I-02 Typical Parts Diagram

There is a battery compartment inside the Pocket video laryngoscope's handle with a removable cover. There is a rechargeable 18500A Li-ion battery placed inside the battery compartment. When replacing a low power level battery with a fully charged one, please pull to open the cover of the battery compartment (see Fig. 9), then take out the "empty" battery (see Fig. 10). To reload a fully charged one in the battery compartment, just reverse the operation as in Fig. 10. Then put the cover back to close the battery compartment, just reverse the operation as in Fig. 9.

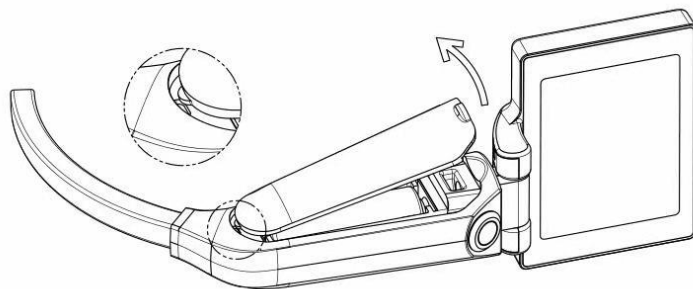


Fig. 9 PVL-I-01 & PVL-I-02 Typical Diagram-Opening the battery compartment

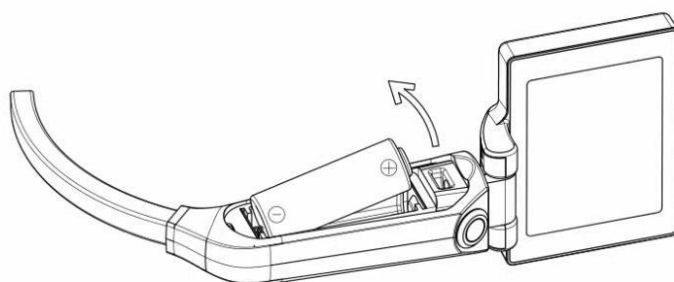


Fig. 10 PVL-I-01 & PVL-I-02 Typical Diagram-Unloading the battery

Perform a Functional Check

To perform a functional check, please refer to Table 3 “Control Key” and its functions.

Prior to the first use of Pocket Video Laryngoscope, please perform the following functional check to assure that the Pocket Video Laryngoscope is working properly and its quality is up to the standard. Please contact with a customer care representative if your Pocket Video Laryngoscope does not function as described below:

- (1) Slide a fully charged 18500A battery into the compartment (compartment) inside the PVL handle, make sure the plus points (anode) to the top, and assemble the PVL accordingly.
- (2) Long pressing the “Control Key” for 3-5 seconds to turn on the Pocket Video Laryngoscope, both the display monitor and the LED light of the video laryngoscope will be on.
- (3) Short pressing the “Control Key” once, a picture is taken. A camera sign appears on the screen briefly.
- (4) Quickly short press the “Control Key” twice, to start video recording. There is a “red dot” flashing on the screen.
- (5) Short pressing the “Control Key” once, to stop video recording. The flashing “red dot” will disappear from the screen.
- (6) Long pressing the “Control Key” for 3-5 seconds to turn off the video laryngoscope both the display monitor and the LED light of the video laryngoscope will be off.

Verify that the logo is displayed on the monitor screen.

Important Note: The logo will display on screen for a few seconds when powering on, then the system is ready to work, and the battery level and real-time are displayed on the screen.

Time Settings

The Pocket Video Laryngoscope’s display “Time” has been preset in the factory before shipping out. The standard time applied is Beijing’s local time. The users from the other time zones can reset the display “Time” to their local time by performing the following steps:

- (1) Put a fully charged 18500A battery into the battery compartment of Pocket VL;
- (2) Connect the Pocket VL to a computer with the equipped data cable, please connect the Pocket VL first, then connect the computer;

- (3) Turn on the power of Pocket VL;
- (4) Find out “My Computer” on the desktop of the computer and open it;
- (5) The TF card of the Pocket VL appears on the screen as a “USB flashing disk”
- (6) Find out “USB flashing disk” and open it. Its drive will be installed automatically.
- (7) If nothing happens, please wait for a while or reconnect the Pocket VL to the computer again.
- (8) In the opened the “USB flashing disk” create a new file“rtc.txt”
- (9) Then key in the “Right Time” into the file as following: 20160101152201 which means: year=2016, month=01(Jan.), day=01, hour=15(24hour), minute=22, second=01.
- (10) Save the file immediately and log out the “USB flashing disk”;
- (11) Unplug the Magnetic USB cable from the Pocket VL, the set time will be automatically updated in it.

Data Retrieval

Connect the Pocket VL to a USB interface computer with the equipped data cable (see Fig. 2 for the VL’s Magnetic USB port), and then press the button to turn on the Pocket VL. Double-click "My Computer" where you will see "Removable Disk", from where you can access the memory card data. **Please connect the Pocket VL first, then to the computer.**

Battery power indication

The battery’s power level will be displayed on the display monitor in terms of “bars” which indicate the battery power of the Pocket video laryngoscope. When the battery is fully charged, there will be “3 bars” displayed on the display monitor. When there is “one bar” left on the display monitor and the bar is in red color and flashing, please replace the battery with a fully charged one immediately. Meanwhile please recharge the empty battery immediately with the equipped charger.

Attaching the Single-Use Blade to the Pocket video laryngoscope

Before using the Pocket video laryngoscope, attach the single-use VL blade to the Pocket video laryngoscope firmly and properly. Follow the proper attaching procedure as below:

- (1) Unpack the package bag of a single-use VL blade and make sure the package is in good condition.
- (2) Take out the single-use VL blade carefully.
- (3) Insert the curved camera rod of the Pocket video laryngoscope into the opening of the single-use VL blade.
- (4) Ensure the position lock of the single-use VL blade is compact and seamless with video laryngoscope..

Caution: Damages may be caused by improper connection and excessive force.

Make sure the selected single-use VL blade is a good match for the Pocket video laryngoscope and it is suitable for the patient.

Detaching the single-use Blade from the Pocket video laryngoscope

After using the Pocket video laryngoscope to complete the intubation, the used single-use VL blade should be disposed as medical waste. Follow the proper procedures to detach the used single-use VL blade from the Pocket video laryngoscope:

- (1) Prizing the position lock of the single-use VL blade with the left thumb.
- (2) Removing the used single-use VL blade from the Pocket video laryngoscope.
- (3) Dispose of it as medical waste by following proper procedure.

The Features of single-use VL blade

- (1) Imported Germany medical grade polymer.
- (2) Ergonomic curve design.
- (3) Durable material ensures the safety of applying the single-use VL blade to rescue a conscious patient.
- (4) Enclosed design prevents the cross infection of infectious disease.
- (5) Anti-fogging technology guarantees a clear view during the intubation.

Selecting the Correct Pocket Video Laryngoscope and its single-use VL blade

Make sure to select the Pocket video laryngoscope and its single-use VL blade that best fit your patient.

Please refer to the compatibility of Pocket Video Laryngoscopes and their single-use VL blades in table

Table 4 Match the Pocket video laryngoscope with its disposable blades

Blade Size	PVL model	Clinical Application	Remarks
MD-0	PVL-I-01	Baby & Infant	5-15Kg
MD-1		Children	15-30Kg
MD-2	PVL-I-02	Teens & Adult	60-90Kg
MD-3		Adult	
MD-1S, 2S, 3S		Difficult Airway blade	

Cleaning, Disinfecting, and Maintenance

Cleaning and disinfecting are very important factors to maintain the Pocket Video Laryngoscopes in good condition. Make sure the Pocket Video Laryngoscopes are clean and disinfected before each use. Examine the Pocket Video Laryngoscopes periodically to make sure they are functioning correctly.

Important Notes :

- 1 Clean and disinfect the Pocket video laryngoscope with 75% medical-grade ethanol and wipe them only.
- 2 When disinfecting the Pocket Video Laryngoscopes' handles by soaking them in the disinfectants, the battery must be removed from its compartment and leave the compartment open. The surface of the disinfectant solution must be lower than the Pocket Video Laryngoscopes' "control key".

General Maintenance Information

Periodic inspection should be performed to ensure safe and effective operation. We recommend that a qualified technician perform a full visual inspection of all components at least every six months.

The technician should check for the following items:

- ✧ External damage;
- ✧ All functions;
- ✧ Damage to the power supply;
- ✧ Connectors and cable insulation integrity

To ensure patient safety, the users should perform a routine inspection of the Pocket video laryngoscope before each use to ensure that all components are free of rough surface, sharp edges, protrusions, or cracks. If inspection reveals any faults in the components, please contact your local distributor immediately.

Caution: Risk of permanent equipment damage.

Do not expose the video laryngoscope to any temperature above 55°C. Do not soak the Pocket video laryngoscope's display monitor and "control key" in any disinfectants solution.

Disinfection Instructions

- (1) Disinfect the components of Pocket Video Laryngoscope according to the disinfecting procedure of this manual.
- (2) Do not disinfect Pocket Video Laryngoscopes with strong acid or alkaline disinfectants.
- (3) Do not expose Pocket Video Laryngoscopes to places with organic solvent, such as acetone and butanone.
- (4) Do not expose Pocket Video Laryngoscopes to places where the temperature is above 55°C.
- (5) Never soak the display monitor of Pocket Video Laryngoscope in any kind of disinfectant.
- (6) Cleaning the glass of camera window whenever necessary to ensure the optimal observing view after disinfection.

Disinfection Procedure for Pocket Video Laryngoscopes (Wipe clean)

- (1) Take off the single-use VL blade from the Pocket video laryngoscope after every use.
- (2) Wipe the Pocket video laryngoscope with medical wiper properly, for example, 75% ethanol medical wipers.
- (3) Start from the front end of the Pocket video laryngoscope (the end with camera lens).
- (4) Apply the wiper gently to cover the whole Pocket video laryngoscope including the display monitor.

- (5) Do not wipe the Pocket video laryngoscope back and forth with the same wiper.
- (6) Dispose of the used medical wipers as medical waste.
- (7) The sterilization of the Pocket video laryngoscope can also be done with EO, as long as control the temperature under 50°C.

Cleaning the Data Transmission Cable


Using a soft and lint-free wiper gently wipe the data transmission cable with IPA (70% isopropyl alcohol), bleach (100ppm), or a mild detergent and water.



Warning

- (1) The Pocket video laryngoscopes should be cleaned and disinfected before first use.
- (2) The Pocket video laryngoscopes are partially water resistance, IPX7 for the handle, IPX2 for the monitor.
- (3) The Pocket video laryngoscopes cannot withstand any kind of automated cleaning and ultrasonic cleaning.
- (4) The disposable blade is for single-use only, discard the blade after each procedure.
- (5) Test all Pocket video laryngoscopes before use.
- (6) Follow the cleaning and sterilization methods as stated in the User manual.
- (7) If you have any doubts about the cleaning and disinfection process, please contact the local authorized representative or the manufacturer.
- (8) Do not use iodide solutions or bleach on the unit.
- (9) Maintenance and service of Pocket video laryngoscopes can only be done by authorized technicians.

General Cleaning, Disinfection and Maintenance instructions (Table 5)










INSTRUCTIONS	
Limitations on reprocessing	Repeated using has minimal effect on the performance of the Pocket video laryngoscope (PVL). The life time of PVL is normally determined by wear and damage due to its clinical use.
Initial treatment at point of use	<p>1. Pull off the used blade from the PVL handle and discard the blade as medical waste.</p> <p>2. During clinical application, if body fluid or secretions contaminate the PVL handle or its monitor, please clean and disinfect the PVL immediately in order to prevent the buildup of bioburden, development of biofilms, and drying of secretions. The PVL must be properly cleaned and disinfected after each use.</p> <p>★ Using soft cloth to scrub the monitor, do not immerse the monitor and the “control key” in the water or alcohol, do not rinse the screen.</p> <p>★ Using soft cloth with alcohol to scrub the handle, dry the handle with a soft cloth.</p> <p>3. Each used PVL must be properly cleaned, disinfected and dried. Then keep the dried and disinfected PVL in a safe and clean place for next use.</p>
Preparation before cleaning	<p>No particular requirements if disinfect the PVL with a soft cloth and 75% medical Ethanol to wipe clean it. If dipping the PVL handle in a disinfectant solution, the cover of the battery compartment and the battery must be removed.</p> <p>Do not immerse the monitor and the “control button” in any solution.</p>
Cleaning: Manual	<p>Manual cleaning should be conducted immediately after each use to prevent any soil from drying on the PVL. Soil that remains on the PVL may interfere with the ability of the sterilization process to effectively kill or inactivate microorganisms and allow biofilm to develop.</p> <ul style="list-style-type: none"> ● Use a soft cloth with 75% medical-grade alcohol to scrub the surface of PVL. ● Use a soft brush to clean any soil in gaps, joints etc. ● Thoroughly wipe the surface of the PVL until soil and organic matter have been visibly removed (In case of heavy soiling more than one wipe may have to be used). <p> Do not use an excessively wet cloth!</p>
Manual Disinfection	<p>After cleaning, visually inspect all surfaces for complete removal of soil and fluids. If ANY soil or fluid is still visible, repeat manual cleaning process.</p> <p>We recommend using 75% alcohol, sodium-dichloroisocyanurate or chlorine dioxide (ClO₂) as the disinfectants.</p> <p>Wipe the PVL completely for at least 2 minutes with damp cloth with suitable and effective disinfectant solution.</p>
Drying	Allow the PVL to air dry. Ensure the PVL is completely dry before stored it.
Inspection and maintenance	<p>Maintenance of the PVL can only be done by persons authorized by the manufacturer. Inspect every surface area, major part and connection for damage or deterioration.</p> <p>Slide a single-use VL blade on the PVL, turn on its power and check the function of PVL in proper working condition.</p>
Packaging	The Pocket video laryngoscope should be packed according to the hospital protocols.
Storage	<p>The PVL should be stored in a well-ventilated, clean and dry area.</p> <p>If not used, please check the mechanical functions of PVL and battery every week.</p> <p>For the single-use VL blade’s storage, make sure “First in, first out” rule applied properly.</p>

Trouble Shooting (Table 6)

#	Malfunction	Troubleshooting Method
1	The Device doesn't work while powering on.	Check the battery level and the connection of VL handle and display monitor especially the connecting pins.
2	The fogging displays on the screen of monitor	Check the single-use VL blade, replace the blade when necessary.
3	Stain displayed on screen of monitor	Check if there are stains on the screen of the monitor or single-use external shell or the camera protection glass.
4	It cannot be connected with data transmission.	Use the cable furnished with video laryngoscope only, ensure the cable is connected properly.
5	No storing function	Check the VL's TF card and make sure there is enough data space available for recording, download the files to a computer and release the data space.
6	Turns off automatically after charging or connecting with the computer.	Check the connection and restart. The charging power is checked automatically by system, and it will power off when wrong connection is detected.

If the troubleshooting methods above do not work, or malfunction persists, please contact your local distributor immediately.

Symbol Directory (Table 7)

Symbol	Meaning
---	Direct current
	Class II Electric shock protection
	Power on/off
	Manufacturer
	Caution
	Type BF applied part
	Date of production
	Consult with IFU
	Dispose by local law or regulation
	Serial Number

Limited Warranty

The warranty obligations of Hebei Vimed Medical Device Company, Ltd. (hereinafter called Vimed Medical) for Pocket Video Laryngoscope are limited to the terms set forth below:

What is covered?

This limited warranty covers defects in materials and workmanship in this product.

What is not covered?

This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Vimed Medical to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover Consumable items.

How Long this Coverage Lasts?

The standard limited warranty for Pocket video laryngoscope product is two (2) years from the date of original purchase.

Who is covered?

Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

What Vimed Medical will do?

Vimed Medical will, at its sole option, provide a replacement unit to satisfy a proper claim under this limited warranty.

How to Obtain a Remedy under This Limited Warranty?

To obtain a remedy under this limited warranty, you must contact the authorized Vimed Medical distributor from whom you purchased this product, or the EAR directly.

Limitation of Liability

THE MAXIMUM LIABILITY OF VIMED MEDICAL UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. TO THE MAXIMUM EXTENT PERMITTED BY LAW, VIMED MEDICAL IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY.

Other Conditions

This limited warranty is void if (i) the label bearing the serial number of this product has been removed or defaced, (ii) the product is not distributed by Vimed Medical or (iii) this product is not purchased from an authorized Vimed Medical distributor.

Your rights under this limited warranty are not diminished if you do not complete and return the product registration form or complete and submit the online product registration form. However, your original Invoice of Purchasing must be presented when requesting a replacement.

Vimed Medical thanks you for purchasing a Vimac video laryngoscope product. We hope it will give you years of satisfaction.

Hebei Vimed Medical Device Company, Ltd.