

Dilon
CoPilot VL[®]+
Video Laryngoscope System



Instructions for Use

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Introduction

The CoPilot Video Laryngoscope (CoPilot VL[®]+) was developed from the ground up, by practitioners who believe that video laryngoscopy should be the standard of care for all intubations. Every patient. Every time. Our affordable video laryngoscope makes video laryngoscopy available for ALL your patients.

The CoPilot VL[®] facilitates intubations by giving practitioners a view of the vocal cords for proper placement of the breathing tube.

CoPilot System

The CoPilot VL®+ system includes the Display, Video Handle, Rigid Stylet and Power Supply. The full list of System components and accessories are listed on the following table. Inspect all components prior to use for any obvious physical damage prior to use.

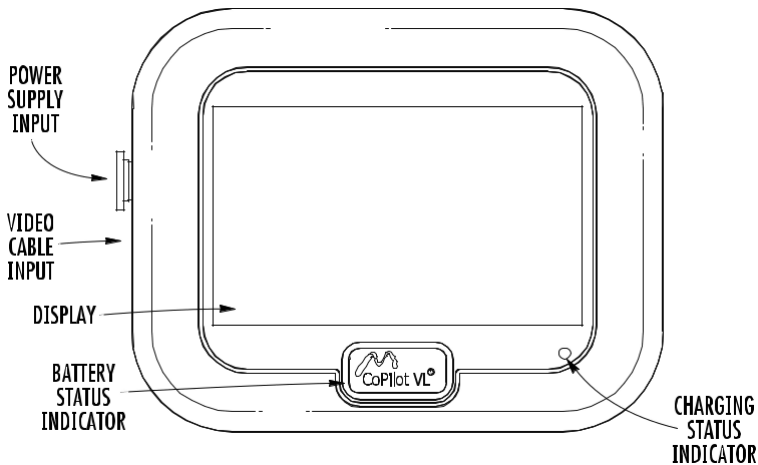
CoPilot System

Part No.	Description
2100	Display
2500	Video Handle
1160	Pole Clamp
1300	CoPilot VL+ Rigid Stylet
1400	Power Supply (AC Adapter)
1511	CoPilot VL+ Disposable Bougies
1602	CoPilot VL+ Portable Video Recorder Cable
3710	CoPilot VL+ Disposable Sheath Pediatric Size 1
3720	CoPilot VL+ Disposable Sheath Pediatric Size 2
3730	CoPilot VL+ Disposable Sheath Adult Size 3
3730S	CoPilot VL+ Disposable Sheath Adult Size 3, Slim
3740	CoPilot VL+ Disposable Sheath Adult Size 4
3740S	CoPilot VL+ Disposable Sheath Adult Size 4, Slim
3750	CoPilot VL+ Disposable Sheath Adult Size 5
3750S	CoPilot VL+ Disposable Sheath Adult Size 5, Slim
5300	TruCorp Airway Manikin
5301	CoPilot VL+ Bag
9029	Anti-Scratch Screen Protector
308-00001	CoPilot Rolling Stand (included basket)

The CoPilot VL[®]+ system consists of three main components: the display, the video handle assembly, and the disposable sheaths. The CoPilot VL[®]+ is compact and can be used in a variety of environments; it goes easily from the operating room to the ambulance and other health care settings.

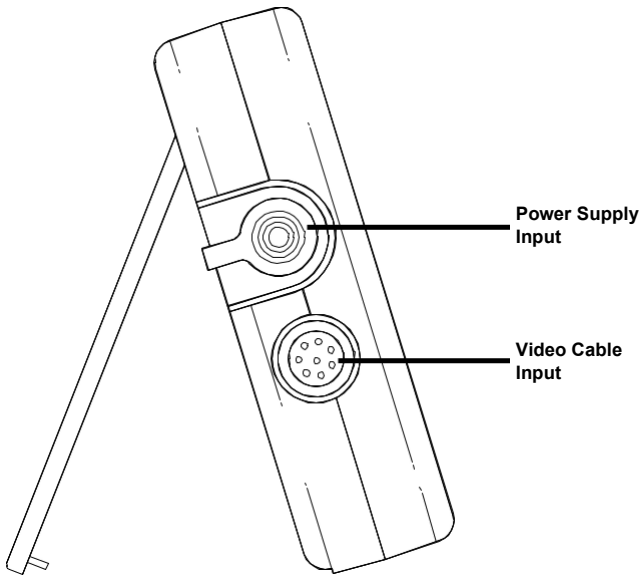
Display - Front View

The CoPilot VL[®]+ was designed with simplicity in mind. There are no buttons to push and no settings to change. When the video blade is fully opened, the display will turn on and the battery status indicator will illuminate.



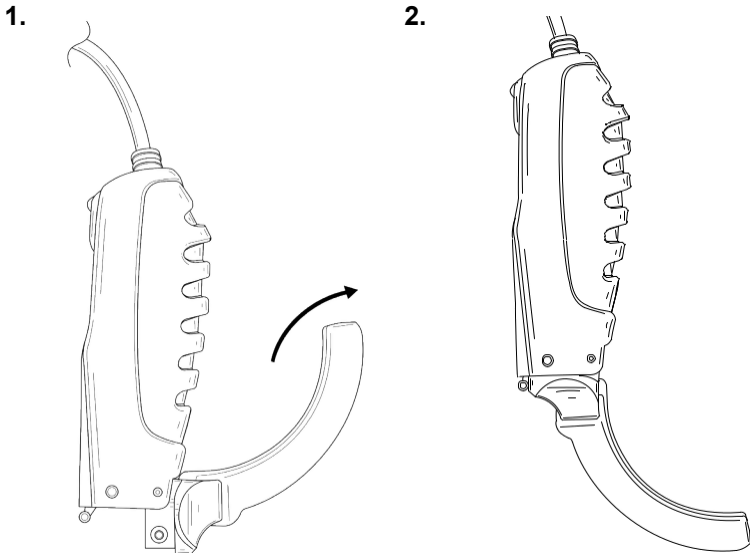
Display - Side View

There are two inputs on the side of the display: one is for the power supply and a second for the video cable input. The power supply is used to charge the built-in internal battery. The video cable is used to attach the video handle to the display. Do not twist or screw the video handle cable into or out of the connector. To connect the Video Handle to the display, line up the white hash mark on the handle connector with the white hash mark on the side of the display and then push the handle connector into the display.



Video Handle and Blade

The CoPilot VL+ ships and is normally in the **OFF** position as noted below in figure 1. To power **ON** the system, open the blade portion of the video handle so that it engages with the upper portion of the video handle as seen in figure 2.

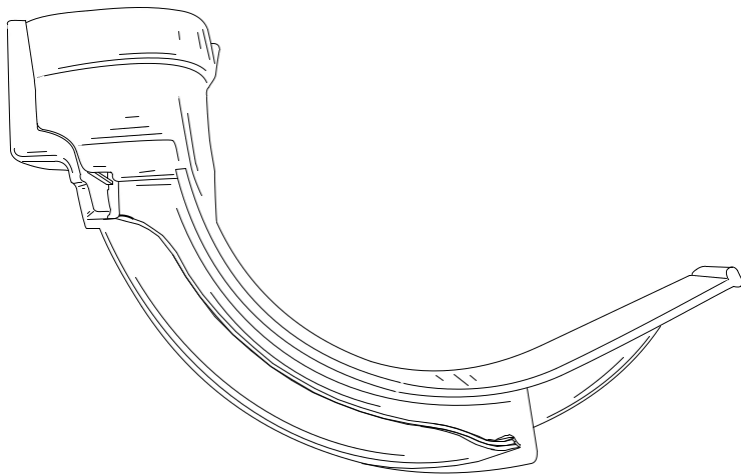


Note: Prior to use, confirm full functionality of the device. Open the video blade to engage the unit and verify that the LEDs on the end of the blade are illuminated and that the display is showing a clear image.

12 Features of the CoPilot VL®+

Disposable Sheaths

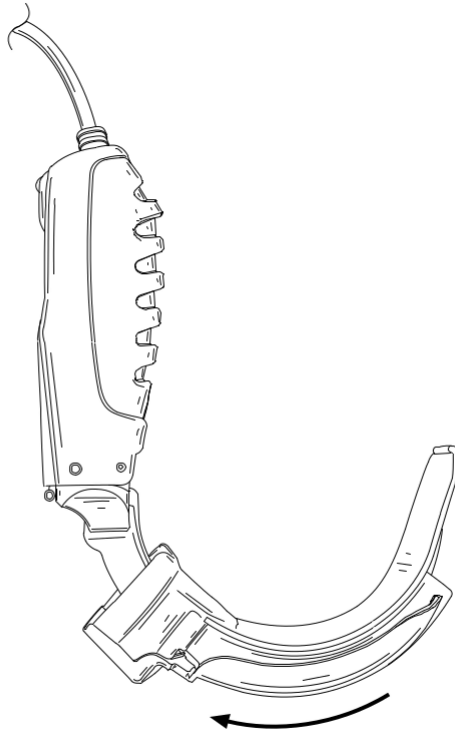
One of the primary benefits of the CoPilot VL®+ is that it uses disposable sheaths. Sheaths are easily removed with the eject mechanism and can be quickly replaced with a new one, eliminating down time. Sheaths are single-use only and must be disposed of after every use in accordance with hospital procedures for general refuse. Do not attempt to use the CoPilot VL®+ without a disposable sheath.



Note: Sheaths are provided in sealed pouches. Examine each pouch for damage, including breach of seal, prior to use. Do not use sheath if the seal is damaged or breached.

Install the Disposable Sheath

With the system powered on, slide a new CoPilot VL[®]+ disposable sheath over the end of the video blade until it snaps into place.

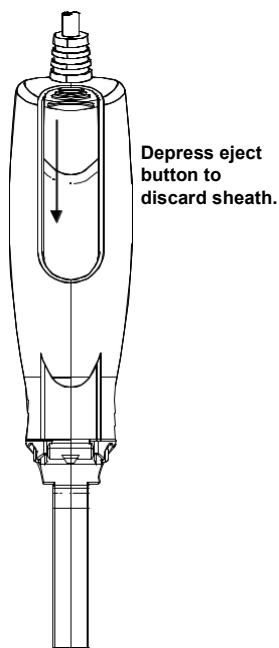


Note: Examine the sheath for any visible signs of damage prior to use.

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Eject the Disposable Sheath

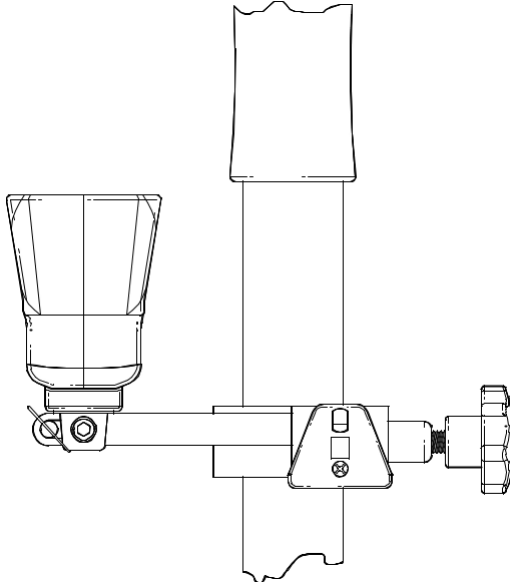
Each CoPilot VL[®]+ disposable sheath is intended for a single intubation only and must be disposed of immediately following use. To remove the CoPilot VL[®]+ disposable sheath from the video blade, depress the eject button on the back of the handle until the sheath is released. This mechanism allows the contaminated sheath to be disposed of without requiring the user to touch the sheath.



IV Pole Clamp Use

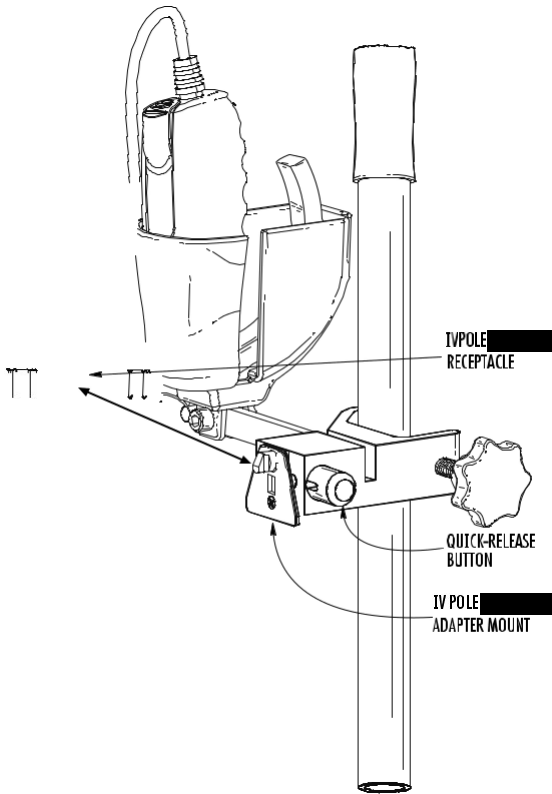
The CoPilot VL®+ display can be mounted to an IV pole at a position that is convenient for the user. Alternatively, the display can be quickly released from the IV pole clamp and may be placed on a table or other flat surface using the built-in stand.

To use the IV pole clamp, position the clamp at the desired level. Tighten the threaded mounting screw in a clockwise fashion until the clamp is firmly secured to the IV pole. Hand-tighten only. Do not use tools to tighten the knob. Do not use the clamp to support any other device.

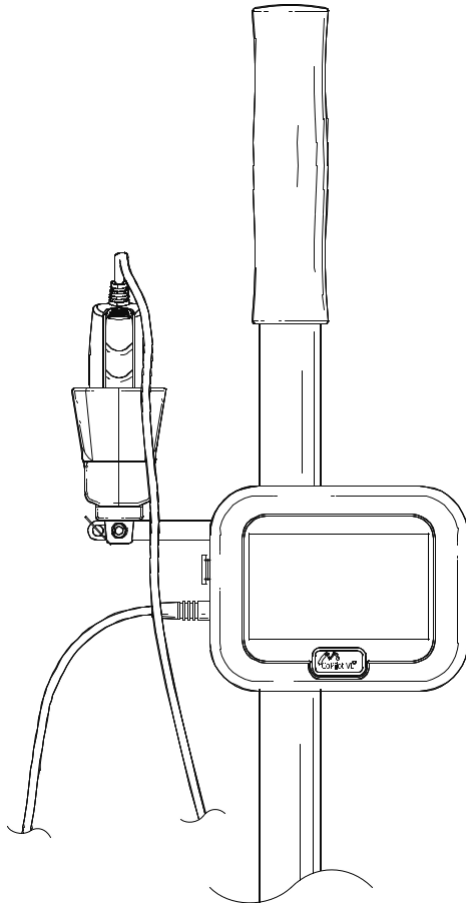


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Next, slide the display unit onto the IV pole mount until it locks into place.



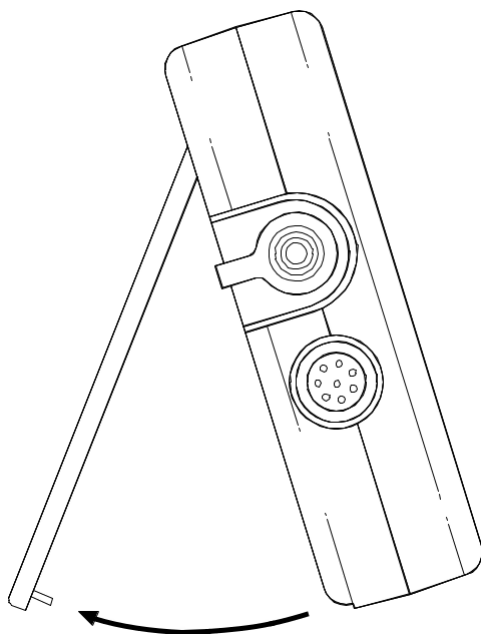
The IV pole clamp also provides a convenient place to store the video handle when not in use.



18 Features of the CoPilot VL®+

Using the Built-In Stand

The CoPilot VL®+ can be used independent of the IV pole clamp. You may place the display on a table or other flat surface using the stand built into the back of the unit. To remove the CoPilot VL®+ from the IV pole clamp, press the quick-release button and lift the CoPilot VL®+ straight up. Place the display on the flat surface and pull out the bottom of the built-in stand to the desired viewing position.



Powering the CoPilot VL[®]+

The CoPilot VL[®]+ can be powered by the included external power supply or by the internal battery. A battery status indicator is built into the logo on the front of the display. A green LED around the CoPilot VL[®]+ logo indicates sufficient charge for use. When the unit needs to be recharged, the LED around the CoPilot VL[®]+ logo will change from green to orange and then to red. The charge status indicators are only approximate; the CoPilot VL[®]+ power supply should be kept immediately available for charging.



Green: Charged.



Orange: Approximately 20% battery life remaining. Recharge as soon as possible.



Red: Less than 10% battery life remaining. Charge immediately!



A fully charged battery will provide over two hours of continuous use. To recharge the device, plug the power adapter into the side of the display housing and tighten the locking washer. Plug into a standard power outlet. The battery charge status light will illuminate, indicating that the device is charging. A depleted battery can be completely recharged in four hours. When the unit is fully charged, the battery charge status light will change from orange to green. You may use the CoPilot VL®+ while it is recharging. To remove the power adaptor from the side of the display, loosen the locking washer by unscrewing and pulling it.

Note: The device may only be recharged using the included power supply; the power supply may not be used to recharge any other device.

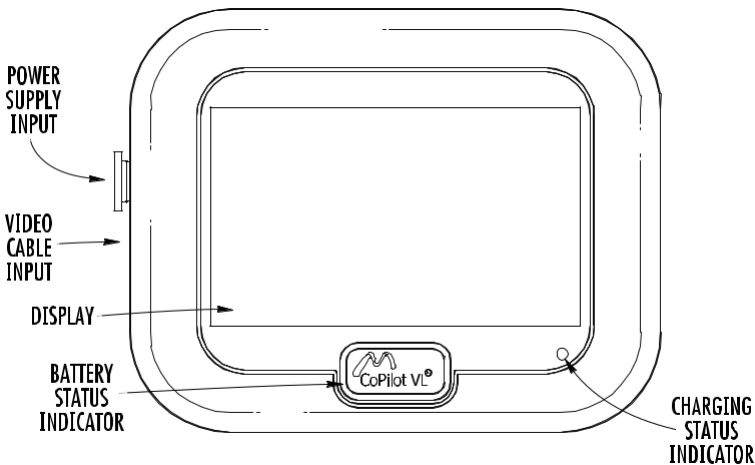
WARNING: The power cable supplied with this equipment provides for this protection. Do not attempt to defeat this protection by modifying the cable or by using adapters or extension cables. The power cord and plug must be intact and undamaged. To disconnect the equipment from the mains power; unplug the power cord.

Warning: If any battery leakage is observed, discontinue use. Do not touch. Contact Dillon Technologies for further instructions.

Using the CoPilot VL[®]+

Assemble the CoPilot VL[®]+

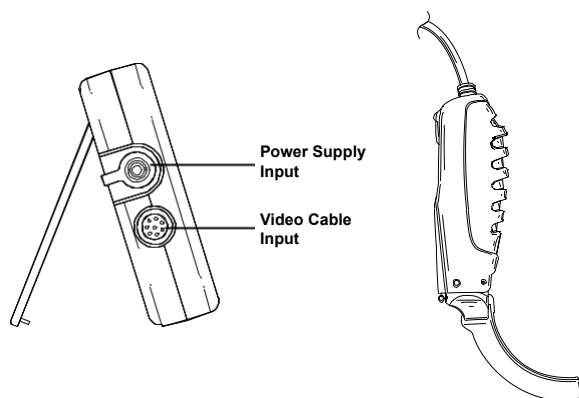
1. Fully charge the CoPilot VL[®] before first use. To do this, attach the adapter side of the included power supply to the side of the display and plug the other end into a power outlet. The charging status indicator will light up. If the unit is fully charged, this light will be green. An orange light indicates that the unit is actively charging.



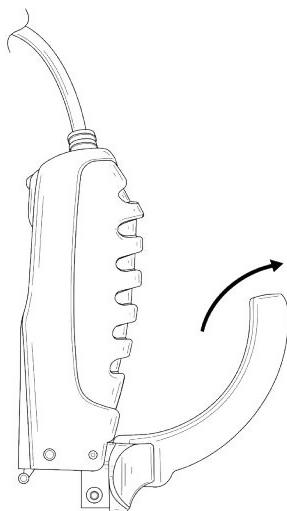
2. Next, locate the handle and plug the attached cable into the video cable input on the side of the display unit by aligning the white hash mark on the handle cable with the white hash mark on the side of the display. The plug and receptacle are shaped to fit only one way. **DO NOT** force or twist the plug into place.

Using the CoPilot VL[®]+

3.

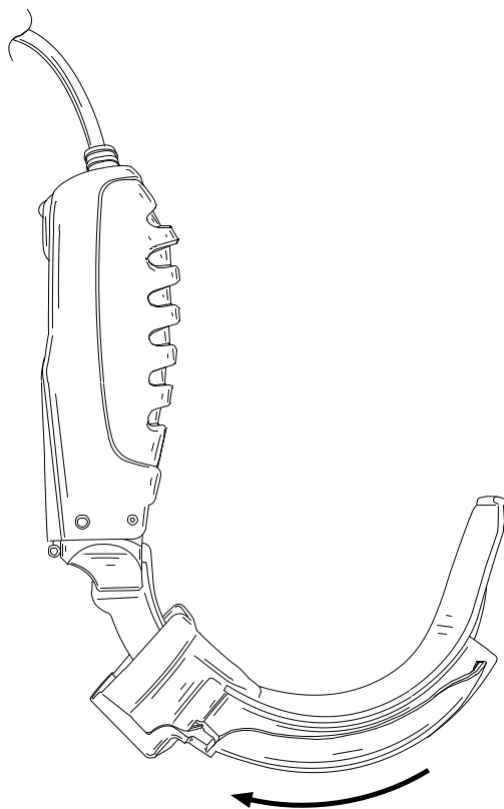


4. To turn the device on, simply open the video blade. The LEDs will illuminate and an image will appear on the display.



Using the CoPilot VL[®]+

5. Finally, attach a new CoPilot VL[®]+ disposable sheath to the video blade. With the video blade open, slide the disposable sheath over the end of the video blade until it snaps into place.



Check the Operational Status

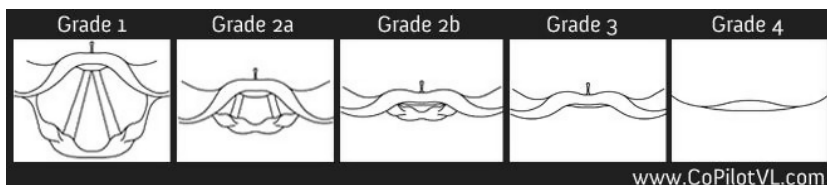
The CoPilot VL[®]+ must be inspected for proper functioning prior to every use. This is accomplished in the same manner as you would with a traditional laryngoscope:

1. Visually inspect the unit to ensure that it is free from damage.
2. Open the blade portion of the video handle. In doing so, the display, camera, LEDs and battery status indicator will turn on.
3. While the device is powered on, you should check the battery status indicator on the front of the display and recharge if necessary.

Using the CoPilot VL[®]+

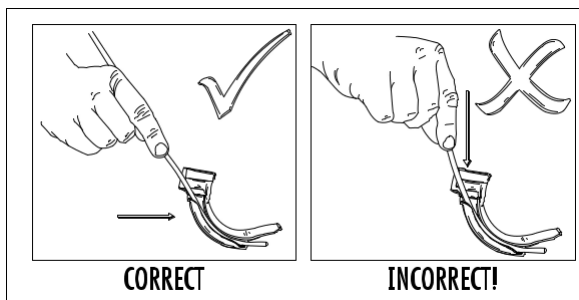
Tips for Intubating with the CoPilot VL[®]+

1. After ensuring proper operational status and sufficient battery charge, open a new CoPilot VL[®]+ disposable sheath and place it over the video blade until it snaps securely in place.
2. Keep your eyes on the PATIENT when inserting the sheathed video blade into the mouth. Observe the sheath passing into the oropharynx. **Then** locate the vocal cords on the display.
3. Only insert the video blade and sheath deep enough to bring the epiglottis into view. Advance the tip of the sheath into the vallecula. Then gently tilt the tip of the sheath upwards until the vocal cords can be seen. Inserting the video blade too deeply will make it MORE difficult to pass the endotracheal tube into the glottis despite a good view. This is the **most important** tip for ensuring success with video laryngoscopy. Often, a grade 2a or 2b can be easier to intubate than a grade 1.



4. A small amount of water-soluble lubricant applied to the distal tip of the endotracheal tube and/or bougie can facilitate intubation.
5. **Bougie Port Method:** Pass a bougie through the Bougie Port and into the glottis.
 - a. The bougie should be taken straight from its packaging and inserted, **coudé tip first**, into the Bougie Port. Keep your eyes on the PATIENT when advancing the bougie into the Bougie Port. Alternatively, pre-load the bougie into the bougie port prior to introducing the disposable sheath into the patient's mouth. **Then** advance the bougie and observe the bougie passing through the glottis on the display.
 - b. Pass an endotracheal tube over the bougie in the usual fashion.
 - c. Ensure that the bougie is dislodged from the Bougie Port as the endotracheal tube is advanced.
 - d. Watch as the endotracheal tube passes through the glottis on the display.
 - e. Remove the bougie while stabilizing the endotracheal tube and verify proper tube placement.
 - f. If the endotracheal tube does not enter easily into the trachea, you may try turning the endotracheal tube 90 degrees counter clockwise and gently advance into the trachea.

Using the CoPilot VL[®]+



6. **Stylet Method:** An alternative to intubating with a bougie is to intubate using a styleted endotracheal tube. Our rigid stylet is the recommended choice but you may use an appropriately shaped malleable stylet as well.

- a. Ensure that the distal tip of the stylet **DOES NOT** extend past the distal tip of the endotracheal tube.
- b. After locating the vocal cords on the display, keep your eyes on the PATIENT when inserting the styleted endotracheal tube into the mouth. Observe the endotracheal tube passing into the oropharynx, then look at the display. Watch for the distal tip of the endotracheal tube to enter the lower right hand corner of the display. Once you see it, then steer the endotracheal tube toward the glottis.
- c. Withdraw the stylet slightly if necessary to pass the tip of the endotracheal tube into the glottis. **DO NOT** allow the stylet to enter the glottis.
- d. Remove the stylet and verify proper endotracheal tube placement.
- e. The reusable rigid stylet must be cleaned via the method below after every use.

Note: Do not attempt to sterilize/disinfect the CoPilot VL®+ using Steris® Systems that use steam. Do not autoclave. Doing so will permanently damage the components and will void the warranty.

Reprocessing Instructions

These reprocessing instructions refer to procedures for cleaning and intermediate level disinfection. CoPilot VL®+ video handles must be reprocessed prior to first use and between each use using the following method as outlined in this document.

The CoPilot VL®+ was designed in such a way that the single-use disposable sheath is the only component that should come into direct contact with the patient when used as intended. Dilon Technologies recommends the development of a policy/routine to decrease the incidence of cross contamination. This may include exercising care when handling the video laryngoscope or other medical devices when there is potential for contamination (i.e., contact with other bodily fluids or potentially contaminated surfaces). The CoPilot VL®+ must be properly cleaned before use and between uses.

Cleaning and Maintenance

Note: Low Level Disinfection is recommended prior to initial use and between each use. Intermediate Level Disinfection is recommended if signs of visible soil is observed. If visible soil is observed, prevent the handle from drying (i.e., wrap/cover in moist germicidal wipe) and clean the CoPilot VL[®]+ as soon as feasible after use. Patient debris can harden and become difficult to remove if not immediately cleaned. This could inhibit the subsequent cleaning processes.

CoPilot VL[®]+ Video Handle

Low Level Disinfection

1. Select an appropriate quaternary ammonium isopropanol based germicidal cleaner labeled suitable for use on healthcare equipment and capable of intermediate level disinfection. Reference EPA-registered disinfectants: <http://www.epa.gov/oppad001/chemregindex.htm>
2. Thoroughly wipe the CoPilot VL Video Handle following the manufacturer's recommended instructions.
 - Sani-Cloth AF# wipes (EPA reg number 9480-9),
 - Super Sani-Cloth wipes (EPA reg number 9480-4)
 - Sani-Cloth Bleach wipes (EPA reg number 9480-8).

Cleaning and Intermediate Level Disinfection

1. Thoroughly wipe to wet all exposed Video Handle surfaces and remove any visible soil.
2. Immediately brush with a soft-bristled brush moistened with an enzymatic cleaner for a minimum of 1 minute to loosen/remove excessive visible soil. Always follow disinfectant manufacturer's instructions for proper use.

Cleaning and Maintenance

3. Moisten a lint free cloth with purified water. (ie: DI water, RO water, Distilled water, etc.)
Wipe handle with cloth to remove the enzymatic cleaner.
4. With a new germicidal wipe, wipe to wet all exposed surfaces of the handle and allow adequate contact for disinfection as directed by the germicidal wipe manufacturer.
5. Allow to dry prior to next use.

Maintenance, Inspection, Testing, Storage

1. Inspect each component area for damage or deterioration.
2. Check operational status.
3. Package and store handle per facility policy to allow device to remain clean, dry, and ready for service.

Warning: Discard any component that shows evidence of damage or deterioration. Contact Dilon for component replacement.

CoPilot VL®+ Rigid Stylet

The CoPilot VL®+ Rigid Stylet should be High Level disinfected between uses.

STEP 1: Clean the CoPilot VL®+ Rigid Stylet

1. Rinse the stylet in clean tap water and scrub with a soft bristled brush until all visible contamination has been removed. Pay close attention to hard to reach areas.

Cleaning and Maintenance

2. Clean and rinse the Rigid Stylet using an appropriate surgical instrument detergent according to the detergent manufacturer's instructions.
3. Inspect the stylet after cleaning. Discard if damage or corrosion observed.

STEP 2: Disinfect/Sterilize the CoPilot VL® + Rigid Stylet ONLY

Disinfection and Sterilization Methods:

Method	Level	Conditions	Maximum Cycles
Steris ®	High	Standard cycles in the following processors: V-PRO 1 Standard Cycle; V-PRO 1 Plus Lumen and Non-Lumen Cycles; V-PRO maX Lumen, Non-Lumen and Flexible Cycles; V-PRO 60 Lumen and Non-Lumen Cycles; and V-PRO maX 2 Lumen, Non-Lumen, Flexible, and Fast Non-Lumen Cycles.	100
Autoclave (steam cycle)	Sterilization	Minimum: 3 minutes at 134°C (273° F) or 4 minutes at 132°C (270°F) Maximum: 8 minutes at 133°C (273°F)	10

Warning: The CoPilot VL[®]+ Rigid Stylet should be carefully inspected for signs of damage, corrosion or material degradation prior to reprocessing and prior to use.

STEP 3: Package the CoPilot VL[®]+ Rigid Stylet

1. Package and store CoPilot VL[®]+ Rigid Stylet per facility policy to allow device to remain clean, dry, and ready for service.

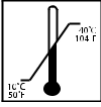
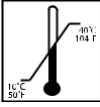

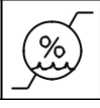
CoPilot VL[®]+ Display/ IV Pole Clamp/ Power Supply

Wipe the CoPilot VL[®]+ display, IV pole clamp and power supply in between uses and as needed with an EPA registered hospital disinfectant, according to the disinfectant manufacturer's written instructions.

Warning: Always ensure the display is unplugged from the power supply before cleaning!

Specifications

Operating Guidelines

Operating Conditions	Storage and Transport Conditions
Temperature	
 <p>10°C to 40°C</p>	 <p>-20°C to +45°C</p>
Relative Humidity	
 <p>0% to 95% non-condensing</p>	 <p>10% to 95%</p>
Altitude	
-100 meters to +3,000 meters	-100 meters to +14,000 meters
Atmospheric Pressure	<p>Operating the CoPilot VL®+ outside the recommended operating environment may negatively impact device performance, may cause damage to the device and will void the warranty.</p>
500-1060 mbar	
Protection Against Ingress of Fluids	
IPX1 – Protection against vertically falling drops of water	

Essential Performance

The CoPilot Display should have an image present when powered on and handle is in the “on” position. The LEDs located at the end of the handle blade should be illuminated

General Cautions

1. Always have an alternate method for performing laryngoscopy and intubation available in case of device failure.
2. Inspect all components for any damage prior to use.
3. Confirm full functionality of the device prior to use by connecting the handle to the display and confirming that the device is operational and has sufficient battery life to perform intubation.
4. Ensure that the display provides a clear image before use.
5. Sheaths and bougies are single-use disposables and may not be reused.
6. Sheaths and bougies are provided in individually sealed packaging. Inspect packaging for damage or breach of seal prior to opening. Do not use if the packaging has been damaged or breached.
7. Inspect sheaths and bougies prior to use to ensure that they have not been damaged, chipped or cracked during transport. Do not use if the item has been damaged.
8. If the battery status indicator is yellow or red, connect to power supply before use.

Specifications

9. Do not attempt to perform any service or maintenance on any part of the device. The end user cannot replace the battery.
10. Never attempt to intubate without using a disposable sheath on the video blade.
11. The CoPilot VL[®]+ meets the electromagnetic compatibility (EMC) requirements as specified in the International Electrotechnical Commission's (IEC) 60601-1-2:2014 standard for emissions and immunity.
12. Do not touch electrical contacts between the handle and blade.
13. CoPilot VL[®]+ is not intended to be used in direct sunlight.
14. Electrical shock hazard: There are no user serviceable components with the CoPilot VL[®]+. Do not attempt to open or service any components.
15. As with all medical electronic equipment, care must be exercised to avoid exposing this device to powerful sources of electromagnetic interference. Do not expose the CoPilot VL[®]+ to X-rays, gamma rays, or other ionizing radiation, or to strong electric or magnetic fields. A traditional laryngoscopy should be available in the event of electrical interference.
16. The CoPilot VL[®]+ is not intended for use in a home environment.

36 Electromagnetic Compatibility

This equipment has been certified to be protected to emissions and immunity according to IEC-60601-1-2.

Electromagnetic Compatibility IEC 60601-1-2:2014

CAUTION: Medical Equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the Operation Manual.

CAUTION: Portable and mobile RF communications equipment can affect medical electrical equipment.

The CoPilot VL®+ is ME EQUIPMENT (Medical Electrical Equipment) that is intended to be used for patients under medical supervision. The CoPilot VL®+ must be operated by trained and qualified medical personnel only.

WARNING: The use of accessories other than those specified below may result in increased emissions or decreased immunity of the equipment.

WARNING: The CoPilot VL®+ should not be used adjacent to or stacked with other equipment. However, if adjacent or stacked use is necessary, the CoPilot VL®+ should be observed to verify normal operation in the configuration in which it will be used.

Guidance and Manufacturer's Declaration – Electromagnetic Emissions

The CoPilot VL®+ is intended for use in the electromagnetic environment specified below. The customer or the user of the CoPilot VL®+ should ensure that it is used in such an environment.

Guidance and Manufacturer's Declaration – Electromagnetic Emissions		
Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF emissions CISPR 11 Radiated	Group 1 Class A	The CoPilot VL®+ uses RF energy only for its internal function. Therefore, their RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11 Conducted	Class A	The CoPilot VL®+ is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Class A	

38 Electromagnetic Immunity

Guidance and Manufacturer's Declaration – Electromagnetic Immunity

The CoPilot VL®+ is intended for use in the electromagnetic environment specified below. The customer or the user of the CoPilot VL®+ should ensure that it is used in such environment.

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast Transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common	±1 kV differential mode ±2 kV common	Mains power quality should be that of a typical commercial or hospital environment.


Guidance and Manufacturer's Declaration – Electromagnetic Immunity

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
<p>Voltage dips, short interruptions, and voltage variations on power supply input lines IEC61000-4-11</p>	<p><5 % UT (>95 % dip in UT) for 0.5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 sec cycle</p> <p>0 % UT: 0.5 cycle at 0, 45, 90, 135, 180, 225, 270 and 315 degrees.</p> <p>0 % UT: 1 cycle and 70% UT; 25/30 cycles.</p> <p>Single phase: at 0 degrees</p> <p>0 % UT; 250/300 cycles.</p>	<p><5 % UT (>95 % dip in UT) for 0.5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 sec cycle</p> <p>0 % UT: 0.5 cycle at 0, 45, 90, 135, 180, 225, 270 and 315 degrees.</p> <p>0 % UT: 1 cycle and 70% UT; 25/30 cycles.</p> <p>Single phase: at 0 degrees</p> <p>0 % UT; 250/300 cycles.</p>	<p>Mains power quality should be that of a typical commercial or hospital environment. The CoPilot VL®+ can also be powered from the internal battery in the event of a power interruption.</p>

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Electromagnetic Immunity**

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m 30 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial, hospital environment.
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM bands between 0.15 MHz and 80 MHz 80% AM @ 2 Hz	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM bands between 0.15 MHz and 80 MHz 80% AM @ 2 Hz	Portable and mobile RF communications equipment should be used no closer to any part of the CoPilot VL®+ including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.

Guidance and Manufacturer's Declaration – Electromagnetic Immunity

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
<p>Radiated RF IEC 61000-4-3</p>	<p>3 V/m</p> <p>80 MHz to 2.7 GHz</p> <p>3 V/m</p> <p>80 MHz to 2.7 GHz</p> <p>80% AM @ 2 Hz</p> <p>Including Clause 8.10, Table 9, for proximity to wireless devices</p>	<p>3 V/m</p> <p>80 MHz to 2.7 GHz</p> <p>3 V/m</p> <p>80 MHz to 2.7 GHz</p> <p>80% AM @ 2 Hz</p> <p>Including Clause 8.10, Table 9, for proximity to wireless devices</p>	<p>Recommended separation distance</p> <p>$d = 1.2 \sqrt{p}$</p> <p>$d = 1.2 \sqrt{p}$ 80 MHz to 800 MHz</p> <p>$d = 2.3 \sqrt{p}$ 800 MHz to 2.7 GHz</p> <p>Where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey a, should be less than the compliance level in each frequency range b.</p> <p>Interference may occur in the vicinity of the equipment marked with the following symbol:</p> 

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Guideline Notes

Note 1 - At 80 MHz and 800 MHz, the higher frequency range applies.










NOTE 2 – These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people

Assessment of the Electromagnetic Environment

Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radios, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, and electromagnetic site survey should be considered. If the measured field strength in the location in which the CoPilot VL®+ is used exceeds the applicable RF compliance level above, the CoPilot VL®+ should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the CoPilot VL®+.

Over the frequency range 150 KHz to 80 MHz, field strengths should be less than 3 V/m.

Symbols

 5V 3A	The power requirements are 5 volts DC at 3 amps max.
IPX2	Fluid ingress protection. Video Handle (IXP2) is protected against falling water when tilted up to 15 degrees.
	IEC 60601 Class II device.
	IEC 60601 Type BF shock protection.
	Consult the Instructions For Use (this manual) for further information.
	No components of the CoPilot VL [®] + contain latex.
	Symbol for "Use by." This symbol is accompanied by a date to indicate that the device should not be used after the date indicated.
	Indication that disposables delivered are non-sterile.
	Indication not to use if packaging is open or damaged.
	European Community Representative

Symbols

	Indication of single use for disposables.
	Shipping and storage temperature range. Symbol is accompanied by lower and upper limits.
	Shipping and storage humidity range. Symbol is accompanied by lower and upper limits.
	Contents are fragile.
	Keep dry.
<p>ETL CLASSIFIED</p> <p>ntertek 5010123</p>	<p>Conforms To UL STD 60601-1, AAMI STD ES60601-1, IEC STDS 60601-2-18 & 60601-1. Certified To CSA STD C22.2 # 60601-1.</p>
	Component sterilized using ethylene oxide.
	Follow Instructions for Use
	WEEE Compliant
	Part Number

Limited Warranty

A. Limited 1 Year Manufacturer's Warranty

Dilon Technologies, Inc Hardware Limited Warranty

IMPORTANT: PLEASE READ THIS LIMITED WARRANTY CAREFULLY TO UNDERSTAND YOUR RIGHTS AND OBLIGATIONS! Dilon Technologies, Inc (Company) warrants the Dilon hardware you have purchased from Dilon Technologies, Inc (the hardware) to be free from defects in materials or workmanship under normal use during the warranty period from the date of purchase. Your original purchase invoice (sales receipt), showing the date of purchase of the hardware, is your proof of purchase. The warranty period applicable to the hardware is ONE year parts and labor. Only the reusable components of the device are covered under the warranty. Single-use, disposable components are not covered under the warranty. This warranty extends only to you, the original purchaser. Any representation or warranty made by any other person, including distributors, resellers, dealers, employees and representatives of Dilon, which are inconsistent or in conflict with or in addition to the terms of this Warranty, shall not be binding on Dilon unless approved in writing by an officer of Dilon. This warranty is not transferable to anyone who subsequently purchases, leases or otherwise obtains the hardware from you. The warranty does not apply to any expendable, disposable or consumable items supplied with the hardware. During the warranty period, Dilon will repair or replace defective hardware with new or factory refurbished parts and products.

Hardware may be serviced or manufactured with parts, components, or subassemblies that originate from returned hardware and that have been tested as meeting applicable specifications for equivalent new material and hardware. All exchanged parts and hardware replaced under this warranty will become the property of Dilon. In the event that the hardware exhibits a defect in material or workmanship within the warranty period, Dilon Technologies, Inc will provide the warranty services according to the following terms and conditions:

B. Warranty Limitation; Exclusions; Exclusive Remedies

This Limited Warranty does not extend to any hardware not purchased from Dilon. This Limited Warranty also does not extend to any hardware that has been damaged or rendered defective (a) as a result of use of the hardware other than for its normal intended use, failure to use the hardware in accordance with the instructions for use, which is available for download from Dilon, failure to clean the device in a manner described in the instructions for use, misuse, abuse or negligent care, handling, or operation of the hardware, or forces or exposure beyond normal use within the specified operational and environmental parameters set forth in the applicable hardware specification; (b) by the use of parts or accessories not approved or supplied by Dilon; (c) by modification of the hardware; (d) as a result of service by anyone other than Dilon or Dilon's Authorized Service Provider; (e) improper transportation or packing when returning the hardware to Dilon; or

B. Warranty Limitation; Exclusions; Exclusive Remedies, continued

(f) unusual physical or electrical stress or interference, failure or fluctuation of electrical power, lightning, static electricity, fire, improper storage, water or other liquids, battery leakage, accidental damage or acts of God. NO OTHER WARRANTIES ARE MADE WITH RESPECT TO THE HARDWARE, AND EXCEPT FOR THE WARRANTIES SET FORTH HEREIN, DILON TECHNOLOGIES, INC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO, TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. DILON MAKES NO REPRESENTATIONS THAT THE HARDWARE IS FREE OF THE RIGHTFUL CLAIM OF ANY THIRD PERSON BY WAY OF INFRINGEMENT OR OF INFRINGEMENT OF PATENT OR TRADEMARK OR THE LIKE, AND DISCLAIMS ANY WARRANTY AGAINST INFRINGEMENT WITH RESPECT TO THE HARDWARE. IN NO EVENT SHALL DILON BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF BUSINESS, PROFITS, DATA OR USE, WHETHER IN AN ACTION IN CONTRACT OR TORT BASED ON A WARRANTY, ARISING OUT OF OR IN CONNECTION WITH THE USE, PERFORMANCE OR MAINTENANCE OF THE HARDWARE, EVEN IF DILON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. YOU AGREE THAT REPAIR, REPLACEMENT OR REFUND, AS APPLICABLE, UNDER THE WARRANTY SERVICES DESCRIBED HEREIN ARE YOUR SOLE AND EXCLUSIVE REMEDIES WITH

B. Warranty Limitation; Exclusions; Exclusive Remedies, continued

RESPECT TO ANY BREACH OF THE DILON LIMITED WARRANTY SET FORTH HEREIN. Some states, provinces, or jurisdictions may not allow the exclusion or limitation of incidental or consequential damages for the type of product sold by Dilon Technologies, Inc, and some states, jurisdictions, or provinces may not allow limitations on how long an implied warranty lasts. In such states, provinces, and jurisdictions, the exclusions or limitations of this Limited Warranty may not apply to you. This Limited Warranty gives you specific legal rights. You may also have other rights that vary from state to state. You are advised to consult applicable state or provincial laws for a full determination of your rights.

C. Obtaining Mail-In, Return to Service Depot, Warranty Service

If you purchased Dilon hardware in the continental United States, Alaska and Hawaii, you are entitled to mail in, return to service depot, repair service during the applicable warranty period subject to the following terms and conditions: 1. Mail in repair service is available for Dilon hardware purchased and located in the continental United States and limited areas of Alaska and Hawaii. 2. During the warranty period, you must first contact Dilon Customer Service Center prior to obtaining any repair service. Please visit www.CoPilotVL.com for contact information. 3. Dilon will attempt to resolve all technical issues over the phone with your assistance.

If the problem cannot be resolved, you will be issued

C. Obtaining Mail-In, Return to Service Depot, Warranty Service, continued

a Return Materials Authorization (RMA) Number to be used to identify the hardware that you are authorized to return for service. 4. You must send in the hardware to the Dilon Customer Service Center for mail-in service. Dilon will provide you with a pre-paid return-shipping label for you to return your defective hardware. Buyer shall be responsible for return shipment charges for Product returned where Dilon determines there is no defect (“No Defect Found”), or for Product returned that Dilon determines is not eligible for warranty repair. 5. The RMA number must be placed on the exterior shipping container. Use the original shipping and packing materials and include a description of the hardware problem along with the RMA number on the inside of the package.

D. Technical Support

Please visit our website at www.CoPilotVL.com for information on receiving Dilon technical support.

Note: All terms and conditions subject to change without notice.

Ordering Replacement Rigid Stylets Sheaths and Bougies

Contact Dilon Technologies, Inc to order replacement or extra parts.

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www.CoPilotVL.com

Disposal

WEEE Directive
2012/19/EU Disposal of
devices or consumables
must be done in
accordance with local,
state, and federal laws
and regulations. WEEE
Directive 2012/19/EU -
Do not dispose of WEEE
products in general
waste.

At the end of life of the
product, contact Dilon
Technologies, Inc's
Customer Service for
return instructions.

