

drive

DeVilbiss
HEALTHCARE



Drive DeVilbiss® Vacu-Aide® Suction Unit 7325 Series

CE 0044



en Drive DeVilbiss® Vacu-Aide® Suction Unit Instruction Guide 7325 Series

Rx ONLY

Assembled in USA

es Guía de instrucciones de la unidad de succión Vacu-Aide® Serie 7325 de Drive DeVilbiss

Rx únicamente

Ensamblado en EE. UU.

fr Guide d'installation de l'unité d'aspiration Vacu-Aide® de Drive DeVilbiss®, série 7325

Uniquement sur Prescription

Assemblé aux États-Unis

it Manuale d'istruzioni Aspiratore Drive DeVilbiss® Vacu-Aide® serie 7325

Solo Rx

Assemblato negli Stati Uniti

nl Instructiehandboekje voor Drive DeVilbiss® Vacu-Aide® Model 7325 afzuigenheid

Uitsluitend op recept

Gemonteerd in de Verenigde Staten

pt Guia de instruções da Unidade de sucção Drive DeVilbiss® Vacu-Aide® série 7325

Apenas Rx

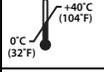
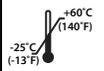
Montado nos EUA.

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SYMBOL DEFINITIONS

	It is mandatory to read and understand the operating instructions prior to use. i This symbol has a blue background on the product label.		External power		Catalog Number
	General Warning i This symbol is used throughout this manual to indicate hazardous situations to avoid.		Battery charging		Serial Number
	Important Information i This symbol is used throughout this manual to indicate important information you should know.		Low battery		Keep dry
	Note and Information Symbol i This symbol is used throughout this manual to indicate notes, useful tips, recommendations and information.	 Li-ion	Recycling Symbol		Do not get wet
	"On" compressor (7325P series)		Center positive polarity indicator		Container tubing vacuum connector
	"Off" compressor (internal battery charging) (7325P series)		Direct current		Manufacturer
	Off (7325D series)		Alternating current		Date of manufacture
	On (7325D series)				
	Type BF equipment-applied part		Operating Temperature Range 0°C to +40°C (+32°F to +104°F)		European Representative
	Federal (U.S.A.) law restricts this device to sale by or on the order of a physician.		Storage & Transport Temperature Range -25°C to +60°C (-13°F to +140°F)		European CE Mark
	Class II electrical protection – double insulated		Storage & Transport Humidity Range 0-93%		TUV Rheinland C-US approval mark
	Protected against solid objects over 2.5 mm and direct sprays up to 60° from vertical.		Atmospheric Pressure Range 770 to 1060 hPa (~7500 ft to ~1400 ft below sea level)		No MR (MR Unsafe) Unsafe for Magnetic Resonance Environment
	Choking Hazard – Small parts not for children under 3 years or any individuals who have a tendency to place inedible object in their mouths.				
	This device contains electrical and/or electronic equipment that must be recycled per EU Directive 2012/19/EU- Waste Electrical and Electronic Equipment (WEEE)				

IMPORTANT SAFEGUARDS

When using electrical products, especially when children or pets are present, basic safety precautions should always be followed. Read all instructions before using. Important information is highlighted by these terms:

 **DANGER**
Indicates an imminently hazardous situation which could result in death or serious injury to the user or operator if not avoided.

 **WARNING**
Indicates a potentially hazardous situation which could result in death or serious injury to the user or operator if not avoided.

 **CAUTION**
Indicates a potentially hazardous situation which could result in property damage, injury, or device damage if not avoided.

 **IMPORTANT**
Indicates important information you should know.

 **NOTES**
Indicates notes, useful tips, recommendations, and information.

READ ALL INSTRUCTIONS BEFORE USING.
THE USER SHALL BE PROPERLY TRAINED PRIOR TO OPERATING THE DEVICE.
SAVE THESE INSTRUCTIONS.



IMPORTANT

The device is to be used only on the instruction of a licensed physician. It is an electrically powered suction device used to treat airway restrictions. It is intended to remove secretions from the upper airway for airway maintenance or clearance of obstructions related to respiratory disorders in neonates, infants, children, and adults as indicated by the physician. The device is not intended for life support, nor does it provide any patient monitoring capabilities.



DANGER

To reduce the risk of electrocution:

1. Do not use while bathing.
2. Do not place or store product where it can fall or be pulled into a tub or sink.
3. Do not place in or drop into water or other liquid.
4. Do not reach for a product that has fallen into water. Unplug immediately.



WARNING

To reduce the risk of burns, electrocution, allergy, fire or injury to persons:

1. Close supervision is necessary when this product is used by, on, or near children or physically incapacitated individuals.
2. Use this product only for its intended use as described in this guide.
3. Keep the power cord away from heated surfaces.
4. Never use while drowsy or asleep.
5. Do not cover the unit or the AC to DC adapter while power is applied.
6. Never operate this product if
 - a. It has a damaged power cord or plug.
 - b. It is not working properly.
 - c. It has been dropped or damaged.
 - d. It has been dropped into water.Instead return the product to an authorized Drive DeVilbiss Healthcare service center for examination and repair.
7. Check the collection container for cracks before each use. Do not use if cracked.
8. Universal precautions must be observed while providing care or handling equipment for persons with an infectious condition.
9. Do not place the suction unit in a position that would make it difficult to disconnect the AC power cord.
10. When the device is used under extreme operating conditions and in the carrying case, the surface temperature of the device may exceed 62.2°C (144°F).
11. The catheter to be used shall be carefully inserted to prevent strangulation/choking.
12. Don't let children play with the tubing as this may lead to strangulation.
13. Consult the physician in case of any allergic reaction due the use of the device.
14. Keep the suction pump out of the reach of children and pets and away from pests.



WARNING



MR Unsafe

1. Do not bring the device or accessories into a Magnetic Resonance (MR) environment as it may cause unacceptable risk to the patient or damage to the Vacu-Aide or MR medical devices. The device and accessories have not been evaluated for safety in an MR environment.
2. Do not use the device or accessories in an environment with electromagnetic equipment such as CT scanners, Diathermy, RFID and electromagnetic security systems (metal detectors) as it may cause unacceptable risk to the patient or damage to the Vacu-Aide. Some electromagnetic sources may not be apparent, if you notice any unexplained changes in the performance of this device, if it is making unusual or harsh sounds, disconnect the power cord and discontinue use. Contact your home care provider.
3. This device is suitable for use in home and healthcare environments except for near active HF SURGICAL EQUIPMENT and the RF shielded room of an ME SYSTEM for magnetic resonance imaging, where the intensity of Electromagnetic DISTURBANCES is high.
4. Use of accessories and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
5. Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
6. Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the Vacu-Aide, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.



WARNING

1. Improper use of the power cord, adapters, and plugs can cause a burn, fire, or other electric shock hazards. Do not use the unit if the power cord or adapters are damaged.
2. Locate tubing and power supply cords to prevent tripping hazards and reduce the possibility of entanglement or strangulation.
3. When device is used under extreme operating conditions, the temperature near the exhaust vents on the bottom of the unit may reach 70°C (158°F). Keep bare skin away from this area.
4. The following surface temperatures may exceed 41 °C under extreme conditions:
 - Collection Container..... 42.7 °C (108.9 °F)
 - AC/DC Power Supply..... 43.3 °C (109.9 °F)
 - External Surface of Suction Unit (Inside of carrying case)..... 62.2 °C (144.0 °F)
 - Power Switch..... 47.8 °C (118.0 °F)
 - Bottom Surface of Handle..... 48.8 °C (119.8 °F)
 - Top Surface of Underneath Handle 52.4 °C (126.3 °F)
5. To avoid electric shock, do not remove the cover. The cover should only be removed by a qualified Drive DeVilbiss technician.
6. Before attempting any cleaning procedures, turn the unit "Off" and disconnect from AC or DC power.
7. Do not service or clean this device while in use with a Patient.



WARNING

This suction equipment should only be used by persons who have received adequate instructions in its use.



BATTERY WARNINGS

1. Charge the battery before initial use.
2. Recommended maximum time between charges = 1 year
3. Recommendation: Store the battery below 60°C (140°F), low humidity, no dust and no corrosive gas atmosphere. Store fully charged if possible.
4. This device contains electrical and/or electronic equipment. Follow local governing ordinances and recycling plans regarding disposal of device components.
5. The battery must be recycled or disposed of properly.



CAUTION

Should fluid be aspirated back into the unit, equipment provider servicing is necessary as possible vacuum pump damage may result.

i NOTE– *This device and accessories, as packaged, do not contain natural latex rubber.*

i NOTE– *Always verify suction level before beginning by occluding open end of patient tubing while observing gauge. Adjust knob to desired level.*

i NOTE– *To minimize the ENVIRONMENTAL IMPACT of the 7325 Series Suction Device during NORMAL USE, remove tubing and collection container from the suction unit, clean or dispose the tubing and collection container properly. Unplug the 7325 Series Suction Device from AC power. Clean the cabinet as listed in the Cleaning section of this guide.*

INTRODUCTION

Your Drive DeVilbiss Vacu-Aide Suction Unit is a compact medical suctioning device which has been designed for reliable, portable operation. Following the recommended operating and maintenance procedures outlined in this instruction guide will maximize the life of this product. This guide provides an overview of the suction unit and operation. Your equipment provider should give more detailed instructions related to patient care.

Intended Use Statement

The device is to be used to remove fluids from the airway or respiratory support system. The device creates a negative pressure (vacuum) that draws fluids through disposable tubing that is connected to a collection container. The fluids are trapped in the collection container for proper disposal. It is for use on the order of a physician only.

Contraindications (specific situation in which the device shall not be used)

The Vacu-Aide should not be used for:

- thoracic drainage
- nasogastric suction

Essential Performance

This device has no essential performance. There is no performance outside normal limits that will lead to unacceptable risk.



DANGER

The Drive DeVilbiss Vacu-Aide is a vacuum suction device designed for the collection of nonflammable fluid materials in medical applications only. Improper use during medical applications can cause injury or death. For all medical applications:

1. All suctioning should be done in strict accordance with appropriate procedures that have been established by a licensed medical authority.
2. Some attachments or accessories may not fit the tubing supplied. All attachments or accessories should be checked prior to use to assure proper fit.

International Travel

The 7325 series is equipped with an AC to DC adapter allowing operation on any AC voltage (100-240 VAC, 50/60 Hz). However the correct power cord must be used to connect to adaptable wall power. AC power is removed by disconnecting the power cord from the AC outlet receptacle.

NOTE– Check power cord for adaptability before using.

OVERVIEW AND ASSEMBLY

Unpacking And Contents

First, unpack your device and identify all items.

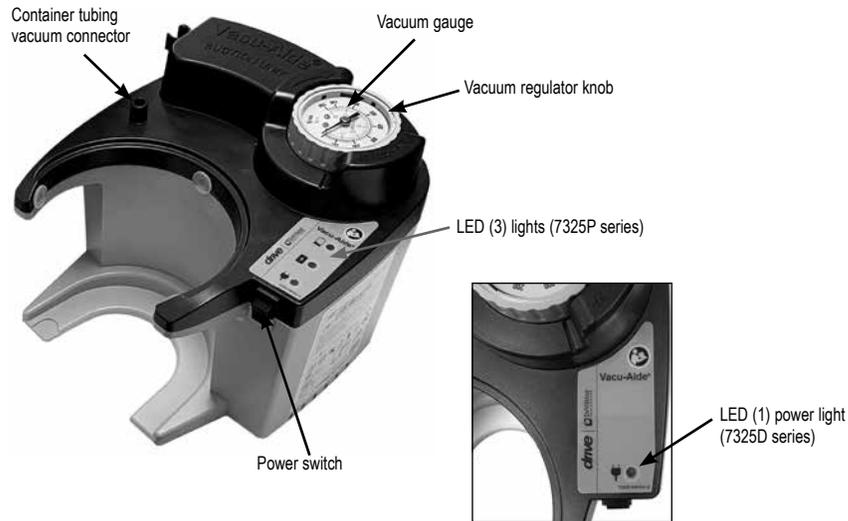
1. Drive DeVilbiss Vacu-Aide Suction Unit
2. Power Supply (AC/DC Adapter)
3. AC Power Cord
4. DC Power Cord (Auto Adapter)
5. 6' (1.8 m) Patient Tubing
6. Container Assembly
7. Carrying Case (7325P series)
8. Instructions for Use (this document)

NOTE– Contents vary by model. Please refer to the contents list on the device carton for items specific to your model.



Important Parts

Front



Back



Assembled Unit



Carrying Bag



Collection Container

Disposable Container with Internal Filter Cartridge and Splash Guard



Container Assembly

NOTE– Inspect suction tubing and container for leaks, cracks, etc. and assure that all connections are secure and without leaks before using.

1. Ensure splash guard is securely attached to inside of lid over internal filter cartridge (if applicable).
2. Securely attach lid to container.
3. Insert container into holder and gently push into place.

NOTE– Do not use excessive force. Pushing container down too hard could cause potential leak or loss of suction.

Container to Device Connection

Disposable Container w/Internal Filter Cartridge:

1. Attach short connection tubing to filter cartridge and to the vacuum connector on suction unit.
2. Attach 6' (1.8 m) patient tubing to the patient tubing connector on the lid.

NOTE– Use 0.25" (6.35 mm) ID medical suction tubing. Refer to Container/Accessory/Replacement Items section of this guide.

Reusable Container and Disposable Container with External Filter:

1. Attach short connection tubing to the bacteria filter and to the vacuum connector on suction unit. Ensure that the clear side of the bacteria filter is toward elbow and container. Do not reverse direction of filter.
2. Connect the bacteria filter to the elbow, and connect elbow to the vacuum connector on the lid.

NOTE– If connection tubing in the 22330 Kit is longer than needed, cut to 4.5" (11.43 cm) to provide a good fit with the unit.

3. Attach 6' (1.8 m) patient tubing to the patient tubing connector on the lid.

NOTE– Use 0.25" (6.35 mm) ID medical suction tubing. Refer to Container/Accessory/Replacement Items section of this guide.



CAUTION

Do not connect 6' (1.8 m) patient tubing directly to suction unit; damage to suction unit will occur.

Power Options

Your Vacu-Aide can be used on the 3 following power sources:

1. AC Power – Attach the Power Supply to the device and an AC power outlet using the AC Power Cord. **NOTE**– The power supply may become warm to the touch during charging or use. This is normal.
2. DC (car charger) Power – Your device includes a DC Cord that allows it to charge and operate from DC accessory power port outlets such as those found in motor vehicles.
 - a. START YOUR VEHICLE. **NOTE**– DO NOT leave the device plugged into the vehicle without the engine running or attempt to start the vehicle while it is connected to the device. This may drain the vehicle's battery.
 - b. Attach Power Supply to the device and to the vehicle accessory power port using the DC power cord. **NOTE**– If power source is less than 12V, the device will operate on battery power.
 - c. Secure the device and Power Supply in your vehicle and make sure the air inlet and exhaust vents are not blocked.
3. Battery Power (7325P series only) – The device will use battery power if no other power source is present. If external power is connected, the device will run on that power source to conserve battery charge level. If the external power source is disconnected, the device will automatically switch to battery power. The device will operate for approximately 45 minutes using a new fully charged battery.

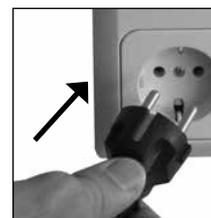
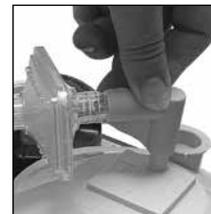
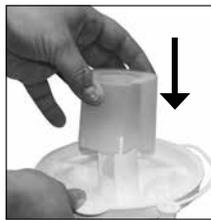
NOTE– The 7325D series does not have an internal rechargeable battery. 7325P series is factory equipped with an internal rechargeable battery and all information regarding battery operation in this guide is applicable.

Functional Test

Functional test to be carried out by the user after dismantling and reassembly of the equipment.

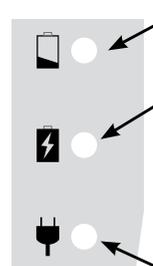
1. Attach the device to an external power source.
2. Turn the suction unit ON.
3. Verify the suction level by occluding the open end of the patient tube while observing the gauge.
4. Rotate the gauge/knob assembly and verify that the unit produces vacuum at all levels.

NOTE– Use medical suction tubing, 0.25" (6.35 mm) inside diameter. Refer to Container/Accessory/Replacement Items section of this guide.



LED Explanations:

Battery Charging (7325P Series Only) – 7325P series units are equipped with a factory-installed rechargeable battery. The unit will have a light for low battery and charge indication.

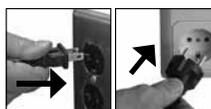


Low Battery LED – Illuminates Red when battery has approximately 5 minutes left. Seek another power source and charge battery as soon as possible when light illuminates.

Charge Indicator LED – This Bicolor LED illuminates Yellow while battery is charging and goes off when battery is fully charged.

- The LED illuminates Red if battery temperature is out of acceptable range for charging.
- LED remains off while unit is running. Battery will not charge while device is in use. (7325P only)

External Power LED – Illuminates Green when power is supplied to unit from an external power source. (7325P & 7325D)



DAILY OPERATION

Device Set Up

1. **7325P series only** - Fully charge battery for 3 hours before first use. Refer to Battery – Initial Battery Charge. **NOTE**– Battery will charge in less than 3 hours from fully discharged state.
NOTE– If Charge Indicator LED is Red, battery is out of temperature range and not charging. If Yellow, battery is charging.
2. Ensure power switch is Off.
3. If using AC or DC power, attach the power supply to the power input on the back of the unit and a wall outlet or DC receptacle using the appropriate Power Cord. **NOTE**– The power supply may become warm to the touch during charging or use. This is normal.

NOTE– Ensure the power cord is fully inserted into the device power input and the power cord plug is completely inserted into a fully functioning outlet. Failure to do so may cause an electrical safety hazard.

Operation

Always perform a Functional Test of the device connections prior to beginning a suction procedure. Refer to Overview and Assembly - Functional Test section for details.

NOTE– Before using the device on battery power for the first time, the battery needs to be fully charged. Refer to Battery – Initial Battery Charge for details.

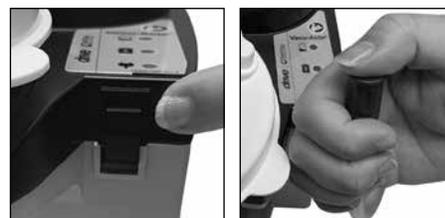
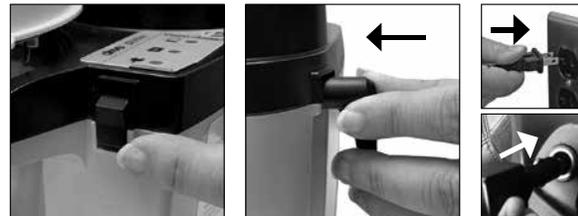
1. Ensure battery is fully charged or attach to external power. **NOTE**– Battery will not charge while device is in use. Do not operate the unit more than a few minutes if the low battery indicator light is lit. Recharge as soon as possible.

NOTE– There is an intentional delay after the device is switched off before it will turn back on again. The delay is approximately 0.25 seconds. If the Power Switch is turned back on too quickly after switching the device off, the suction device will not start. Wait at least 0.25 seconds after switching the suction device off before turning the Power Switch back on.

2. Turn the unit On. Adjust the suction level and verify. **NOTE**– Always verify suction level before beginning by occluding open end of patient tubing while observing gauge. Rotate knob to desired level by turning clockwise to increase vacuum and counter-clockwise to decrease vacuum.

NOTE– The vacuum (negative) pressure should be set as directed by a physician or other appropriate health care professional. Published expert consensus suggests the suction vacuum pressure should be set as low as possible to effectively clear secretions.¹ For tracheal and/or endotracheal suctioning, a vacuum (negative) pressure of less than 100 mmHg in infants, less than 120 mmHg in children and less than 150 mmHg in adults has been recommended.²

NOTE– Gauge is for reference only. If the unit sustains a severe drop, accuracy of the gauge must be checked.



WARNING

If the unit is not receiving power from an external source or the battery was not recharged, the low battery indicator light will remain on and the performance of the unit will drop off rapidly. Switch to another power source immediately after the low battery light appears to avoid an interrupted suction procedure.



WARNING

This device is rated for intermittent operation use as noted in the specifications. Do not operate device with no flow or suction port blocked. Continuous operation under this condition may cause the unit to thermal shut off or damage the device.



CAUTION

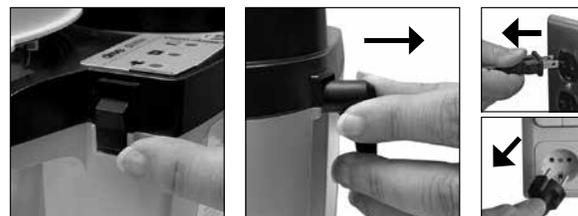
Suction at the patient is automatically obstructed when liquid level reaches the float shut-off located on the underside of the container lid. When automatic float shut-off is activated, contents of the collection container should be emptied. Further suctioning could cause damage to the vacuum pump.



CAUTION

Should fluid be aspirated back into the unit, equipment provider servicing is necessary as possible vacuum pump damage may result.

3. When suctioning procedure is complete, turn unit off and allow vacuum to drop.
4. Disconnect from power source.
5. Clean the container - refer to Cleaning Instructions.
6. **7325P series only** – Fully recharge battery after each use.



¹ AARC Clinical Practice Guideline. Endotracheal Suctioning of Mechanically Ventilated Patients With Artificial Airways-2020. Respir Care 2010;55(6): 758- 764.

² AARC Clinical Practice Guideline. Nasotracheal Suctioning-2004 Revision & Update. Respir Care 2004;49(9): 1080-1084

STORAGE

When not in use, your device should be stored in a cool, dry location within the specified storage parameters (refer to Specifications).

- Do not store batteries longer than 1 year without recharge.
- Lithium ion batteries can be stored from -20°C to 60°C (-4°F to 140°F) at up to 90% relative humidity.

Recommendation: Store the battery below 60°C (140°F), low humidity, no dust and no corrosive gas atmosphere. Store fully charged if possible. Avoid storage in direct sunlight. High temperature storage (above 40°C / 104°F), such as in a hot car, may degrade battery performance and reduce battery life. Low temperature storage may affect battery performance. The best battery charge conditions are within a temperature range of 0°C to 45°C (32°F to 113°F) at up to 90% relative humidity. If the battery temperature exceeds 45°C (113°F), the device will not charge the battery. Charging will be resumed when the battery temperature drops to 44°C (111°F) or below.

BATTERY

Initial Battery Charge

Before using the device on battery power for the first time, the battery needs to be fully charged.

NOTE– Fully charge battery for 3 hours before first use.

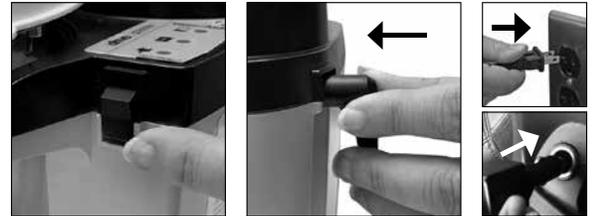
1. **7325P series only** - To charge the Vacu-Aide battery, simply attach the power supply to the device and an AC or DC power source using the appropriate power cord.
2. The yellow LED illuminates while the battery is charging, and goes out once battery is fully charged.

NOTE– If battery is outside the specified temperature range, the Charge Indicator LED will illuminate Red. Battery will not charge until it reaches the specified temperature range at which time the Charge Indicator LED will illuminate Yellow.

Battery Charging

NOTE– The battery will not charge while the device is in use. Charging will begin once the procedure is complete and the device is turned off.

1. Ensure power switch is Off.
2. Attach the power supply to the power input on the back of the unit and a wall outlet or DC receptacle using the appropriate power cord; green External Power LED will illuminate.
3. Battery charging begins; verify that yellow Battery Charge LED illuminates. **NOTE**– If battery is outside the specified temperature range, the Charge Indicator LED will illuminate Red. Battery will not charge until it reaches the specified temperature range at which time the Charge Indicator LED will illuminate Yellow.
4. When battery charging is complete, the yellow LED will go off. The green LED will remain on as long as external power is present.



CAUTION

Do not operate the unit more than a few minutes if the low battery indicator light is lit. Recharge as soon as possible. Device will shut off approximately 5 minutes after Low Battery LED illuminates Red.

NOTE– Charge battery for a minimum of 3 hours before first use.

NOTE– Fully recharge battery after each use. The unit will continue to float charge the battery after the charge indicator turns off, so leave the unit connected to external power when not in use.

NOTE– When charging the battery, use an external power source and verify that the charge light illuminates when the unit is in the “Off” position. If the battery does not charge, please be sure the model you are using has a battery installed prior to contacting your authorized Drive DeVilbiss Healthcare provider.

NOTE– Do not connect the AC adapter to an outlet controlled by a switch to ensure power is supplied to unit at all times.

NOTE– Do not connect the DC power cord to an outlet that is not constantly energized.

NOTE– A new fully charged battery will provide approximately 45 minutes of continuous operation at a zero vacuum level (free flow). Operation time will decrease with higher vacuum levels.

NOTE– Unit run time will also be reduced by letting the battery sit at a discharged state for extended periods.

NOTE– Unit run time will decrease as the battery ages.

NOTE– The battery may have 75% of its initial capacity after 500 charge/discharge cycles; in this case, you can expect up to 34 minutes of runtime.

NOTE– The internal rechargeable battery is lithium ion and must be disposed of properly. Contact your local authorities for instruction on proper disposal.

STORAGE NOTE– Battery should be charged for a minimum of 3 hours prior to storage, and at least once every year while in storage.

IMPORTANT - If battery recharge is delayed beyond 1 year, battery may be able to provide full run time after completion of 3 full charge and discharge cycles.

MAINTENANCE

There is no routine or scheduled maintenance required for the Vacu-Aide Suction Unit.

Filter Change



IMPORTANT

Change filter cartridge and/or external bacteria filter if overflow occurs or after every two months of use, whichever comes first.

Changing Internal Filter Cartridge (single-patient use) Disposable Container



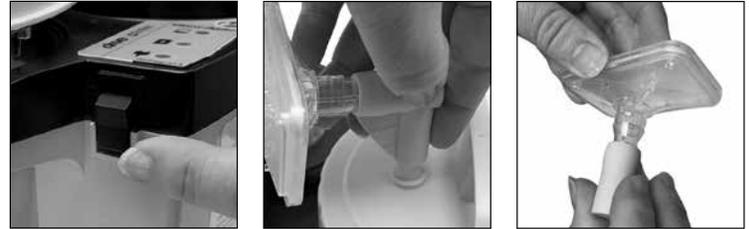
1. Turn unit Off.
2. Remove filter cartridge and connector tubing.
3. Install new cartridge and attach tubing.

NOTE– Do not substitute any other material for this filter cartridge. Substitution may lead to contamination or poor performance; use only DeVilbiss filter cartridges.

NOTE– The filter cartridge contains a hydrophobic filter. If the filter media becomes wet, air flow will be stopped. The filter cartridge must then be replaced. Do not remove filter media from filter cartridge.

NOTE– Filter cartridges are included with each disposable container. They are also available separately (7305D-635).

Changing External Bacteria Filter (single-patient use) Reusable Container and/or Disposable Container



1. Turn unit Off.
2. Remove filter by disconnecting it from suction unit and lid assembly.
3. Replace with a clean DeVilbiss bacteria filter (non-sterile) and remount to suction unit and lid. Ensure that the clear side of the bacteria filter is toward elbow and bottle when installing. Do not reverse direction of filter. Additional filters (7305D-608 12/pack) may be purchased from your authorized Drive DeVilbiss Healthcare provider.

NOTE– Do not substitute any other material for this bacteria filter. Substitution may lead to contamination or poor performance; use only DeVilbiss filters.

NOTE– Bacteria filter must be changed between patients.

	Inspection Interval/Specification	Replacement Interval
Disposable Container	Before Each Use check for cracks in container that could fail	After 30 cleaning cycles or when switching patients
Reusable Container	Before Each Use check for cracks in container that could fail	After 30 autoclave cycles
Patient Tubing	Before Each Use check for cracks in tubing that could leak or fail	As needed or when switching patients

Service Life

- Service life of the suction unit is 5 years.
- Service life of the battery is 500 discharge cycles. The battery may have 75% of its initial capacity after 500 charge/discharge cycles.
- Service life of the disposable container is 30 cleaning cycles.
- Service life of the reusable container is 30 autoclave cycles at 121°C (250°F).

CONTAINER/ACCESSORY/REPLACEMENT ITEMS

The following items can be purchased separately as accessories or replacement items for your 7325 Series Drive DeVilbiss Suction Unit:

NOTE– The use of electrical cables and accessories other than those specified in this manual or referenced documents may result in increased electromagnetic emissions from the product or decreased electromagnetic immunity of the product.

Containers

Disposable Container with Internal Filter



Assembled Collection Container Kit

7305D-633 - Includes 800 ml container and lid, internal filter cartridge, splash guard, and 4.5" (11.43 cm) connection and 6' (1.8 m) patient tubing (1/ea)

Assembled Collection Container Kit

7305D-633-25 - Includes 800 ml container and lid, internal filter cartridge, splash guard, and 4.5" (11.43 cm) connection and 6' (1.8 m) patient tubing (25/pk)



Unassembled Collection Container

7305D-632 - Includes 800 ml container and lid, internal filter cartridge, splash guard, and 4.5" (11.43 cm) connection tubing (48/pk)

Reusable Container with External Filter



Reusable Collection Container Kit

7314D-603- Includes 1200 ml reusable container and lid, external bacteria filter, elbow, 4.5" (11.43 cm connection tubing) (1/ea)



Unassembled Collection Container Kit

7314D-604 - Includes 1200 ml reusable container and lid, external bacteria filter, elbow, 4.5" (11.43 cm) connection tubing (6/pk)

Accessories and Replacement Parts



7325 Carrying Case
7325D-635



12V DC Power Cord
7304D-619



AC to DC Power Adapter/Charger
7314P-613



AC Power Cord (USA)
#DV51D-606



AC Power Cord (UK)
#DV51D-608



AC Power Cord (EU)
#DV51D-607



AC Power Cord (Australia)
#DV51D-609



6' (1.8 m) Patient Tubing, PVC
SUCP TUBING 72 (USA)
6305D-611 (International)



10" (25.4 cm) Connection Tubing, PVC
SUCP TUBING 10



4.5" (11.4 cm) Connection Tubing, Silicone
7305D-639 (12/pk)



Internal Filter Cartridge with Integrated Elbow
7305D-635



WARNING

To prevent possible risk of infection from contaminated cleaning/disinfection solutions, always prepare fresh solution for each cleaning cycle and discard solution after each use.

Containers



IMPORTANT

1. The disposable collection container for single-patient use only.
2. The reusable collection container can be autoclaved between patients and reused.

All Containers

1. Turn unit Off and allow vacuum to drop.
2. Disconnect from power source.
3. Disconnect tubing and remove container from holder.
4. Carefully remove lid and empty contents.
5. Disassemble and wash/disinfect container following appropriate instructions below.

NOTE– The disassembled disposable collection container may also be washed in a dishwasher, top shelf only, using a cycle with a water temperature between 55°C to 65°C (131°F to 149°F).

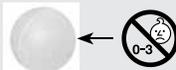
Disposable w/Internal Filter Cartridge

1. Remove filter cartridge and short connection tubing and set aside.
2. Wash container, lid, and splash guard in warm water/dishwashing solution. Rinse with clean warm water, then disinfect.
3. After washing, disinfect in 1 part vinegar (>+5% acetic acid concentration) to 3 parts water (55°C to 65°C / 131°F to 149°F) solution for 60 minutes. Rinse with clean warm water and air dry.



WARNING

Do not remove float ball from lid. If removed, float ball may pose a choking hazard.



IMPORTANT

Filter **MUST NOT** get wet. The filter material cannot be removed from the cartridge.

Disposable w/External Bacteria Filter

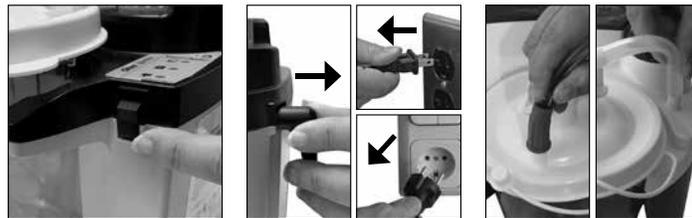
1. Remove bacteria filter, elbow, and short connection tubing and set aside.
2. Wash container and lid in warm water/dishwashing solution. Rinse with clean warm water, then disinfect.
3. After washing, disinfect in 1 part vinegar (>+5% acetic acid concentration) to 3 parts water (55°C to 65°C / 131°F to 149°F) solution for 60 minutes. Rinse with clean warm water and air dry.

Reusable Container with External Bacteria Filter

1. Remove bacteria filter, elbow, and short connection tubing and set aside.
2. Wash container, lid, o-ring, and overflow valve in a solution of warm water with a mild, liquid detergent (e.g. Dawn or Palmolive) and rinse with clean, warm tap water.
3. Then disinfect using one of the following methods:

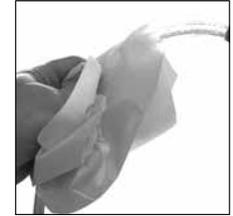
Disinfection for single patient use:

- a. **All Containers:** After washing, disinfect in 1 part vinegar (>+5% acetic acid concentration) to 3 parts water (55°C to 65°C / 131°F to 149°F) solution for 60 minutes. Rinse with clean, warm water and air dry in a clean environment.
- b. **Only Reusable Container:** Soak with a commercial (bacterial-germicidal) disinfectant. Follow disinfectant manufacturer's recommended dilution rates and instructions carefully.



6' (1.8 m) Patient Tubing (single-patient use)

1. Disconnect from lid.
2. Rinse thoroughly by running warm tap water through it.
3. Follow by soaking in a solution of 1 part vinegar (>=5% acetic acid concentration) to 3 parts water (55°C-65°C / 131°F-149°F) for 60 minutes. Rinse with clean, warm water and air dry.
4. Keep outer surface clean by wiping with clean, damp cloth. Inspect tubing, replace if the tubing or ends have cracks or damage.



Suction Unit (single-patient use)

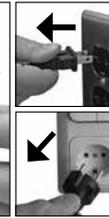
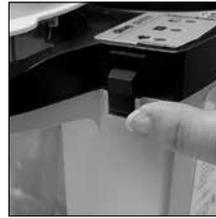


CAUTION

Do not submerge in water as this will result in damage to the vacuum pump.

NOTE– Do not use any cleaners or disinfectants that contain ammonia, benzene and/or acetone to clean the unit.

1. Turn unit Off and allow vacuum to drop.
2. Disconnect from power source.
3. Wipe the housing with a clean cloth and any commercial (bacterial-germicidal) disinfectant.



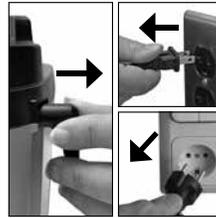
Carrying Case (single-patient use)

1. Wipe with clean cloth dampened with detergent or disinfectant.



AC to DC Adapter

1. Disconnect AC to DC adapter from unit and from power source.
2. Wipe AC to DC adapter housing and cords with a dry cloth.



Cleaning & Disinfection

	Recommended cleaning / disinfection interval	Number of cleaning / disinfection cycles *	Compatible cleaning / disinfection agents / max washing temperature
Disposable container	As needed	30	Dishwashing liquid or 1 part vinegar to 3 parts water for 60 minutes or 30 dishwasher cycles, top shelf only, water temperature to be 55°C to 65°C (131°F to 149°F)
Reusable container	As needed	30	Autoclave, 15 min @ 121°C (250°F)
Pump enclosure, power cord	As needed	30	Mild detergent or 1:5 chlorine bleach (5.25%) and water solution, Mikrobac forte, Terralin Protect

* number of cleaning / disinfection cycles determined by recommended cleaning interval and expected service life.

TROUBLESHOOTING



DANGER

Electric shock hazard. Do not attempt to open or remove cabinet, there are no user-serviceable internal components. If service is required, return unit to a qualified Drive DeVilbiss Healthcare provider or an authorized service center. Opening or tampering with the unit will void warranty.

NOTE– Your Drive DeVilbiss Suction Unit contains no user-serviceable parts. If you believe your unit is not working properly, **BEFORE YOU RETURN IT TO YOUR DRIVE DEVILBISS HEALTHCARE PROVIDER WHERE YOU PURCHASED IT, PLEASE TAKE A FEW MOMENTS TO CHECK FOR THESE POSSIBLE CAUSES:**

PROBLEM	ACTION
Unit does not turn on when external power is connected. Green external power light does not illuminate.	<ol style="list-style-type: none">1. Check power sources and connections.2. Ensure wall outlet is live by plugging in a lamp.
Pump runs, but there is no suction.	<ol style="list-style-type: none">1. Check that all tubing is connected properly.2. Check tubing connections for breaks or leaks.3. Ensure that float shut-off in collection container is not activated or filter cartridge occluded.4. Check for leaks or cracks in collection container assembly.
Low suction.	<ol style="list-style-type: none">1. Use vacuum regulator knob to increase suction level.2. Check system for leaks.
Unit does not turn on (no external power is connected), 7325P Series Only	<ol style="list-style-type: none">1. Check that battery is fully charged and/or charge battery.
Battery will not charge (external power and charge indicator lights should be illuminated during charge mode) 7325P Series Only	<ol style="list-style-type: none">1. Verify that both external power and charge indicator lights illuminate.2. Check power sources and connections.3. Ensure wall outlet is live by plugging in a lamp.

RETURN AND DISPOSAL

After use of the device, please return the device to the provider for disposal. The equipment, including accessories and internal components, does not belong in your regular household waste; such equipment is manufactured from high-grade materials and can be recycled and reused. The internal motor, PC board and wiring should be removed from the unit and recycled as electronic waste. The remaining plastic components should be recycled as plastics. The European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE) requires that electrical and electronic equipment be collected and disposed of separately from other unsorted municipal waste, with the aim of recycling it. The crossed out waste bin symbol indicates that separate collection is required.

Disposal of Lithium-Ion Batteries

The Lithium Ion battery must be recycled per local regulations for Lithium Ion batteries. Some states have specific laws regarding the disposal of lithium-ion batteries. You should contact your local Government Household Hazardous Waste Agency for information on state battery disposal regulations. For information on where you can recycle your batteries at no cost, visit www.call2recycle.org or call 1-877-723-1297.

Recycle batteries according to national and local regulations. Contact your local representative for assistance. The batteries must be disposed only in a discharged state at the collection center. In case of not fully discharged batteries, provide for a risk against short circuits. Short circuits can be prevented by isolating the terminals with tape.

PROVIDER INFORMATION

Provider's Notes

Before delivering this suction device to a patient, please be sure to apply the language label needed for that country.

No routine calibration or service is required provided the device is used in accordance with the manufacturer's directions. In case of a change of patient, the device must be reconditioned to protect the user. Reconditioning must only be carried out by the manufacturer or service provider. Between patients:

1. Visually inspect unit for any damage, missing parts etc.
2. Ensure that unit and accessories are clean.
3. Use an independent vacuum gauge to verify the unit provides the proper vacuum level as stated in Specifications.
4. Discard and replace disposable collection container, filter, tubing, and carrying case between patients.
5. Follow the Disinfection Instructions below.

Reusable Container

Disinfection for multi patient use:

1. After parts are completely dry, place container and lid in autoclave with the open end down. Ensure parts are not touching. Run one sterilization steam cycle at 121°C (250°F) for 15 minutes. **NOTE**– Container is guaranteed up to 30 cycles of autoclave sterilization at the indicated conditions.
2. Dispose of and replace filter, tubing and elbow between patients.

Suction Unit (multi-patient use)

Device Cleaning and Disinfection When There is a Patient Change

Drive DeVilbiss Healthcare recommends that at least the following procedures be carried out by the manufacturer or a qualified third party between uses by different patients.

NOTE– When the device is used as per instructions under normal conditions the interior of the device is protected from exposure to pathogens by the in-line filter on the collection container, hence no disinfection of internal components is necessary.

NOTE– If the device is used without an in-line filter then the interior of the device may be exposed to pathogens and the device cannot be disinfected.

NOTE– If the following described complete processing of the device by an appropriately trained individual is not possible, the device should not be used by another patient.

1. Use disinfectants safely. Always read the label and product information before use.
2. Always wear personal protective equipment when performing this procedure. Use suitable gloves and safety glasses. Cover exposed skin on arms to prevent accidental contact with bleach solution that has been applied to the device. Perform disinfection in a well-ventilated area.
3. Dispose of all accessories that are not suitable for reuse. This includes but may not be limited to the disposable collection container, filter, tubing and carrying case.

4. With the power switch in the "Off" position, disconnect the device from all external power sources.
5. Visually inspect the device for any damage, missing parts, etc.
6. Clean the exterior of the device with a clean lint-free cloth. Heavy soil should be removed with a clean lint-free cloth dampened with water. A soft bristled brush dampened with water can be used to remove stubborn soil. Dry the device using a clean lint-free cloth if water was used to remove soil.
7. Use 5.25% chlorine bleach (Clorox Regular Liquid Bleach or equivalent). Mix one (1) part bleach with four (4) parts water in an appropriate clean container. This ratio produces a one (1) part bleach to five (5) total parts solution (1:5). The total volume (amount) of solution required is determined by the number of devices in need of disinfection. **NOTE**– An alternate suitable commercial (bacterial-germicidal) disinfectant that meets the requirements listed in the NOTE below and is used as per the disinfectant manufacturer's recommended dilution rates and instructions may also be used.



CAUTION

Do not submerge the device in water as this will result in damage to the vacuum pump.

NOTE– Do not use any cleaners or disinfectants that contain ammonia, benzene and/or acetone to clean the device.

8. Apply the bleach solution in an even manner to the enclosure and power cord using a clean lint-free cloth. The cloth should be dampened only and not dripping of solution. Do not use a spray bottle to apply the solution. Do not saturate the device with the solution. Avoid over-saturating the enclosure seams so that no solution residue builds up in these areas.
9. Exposure time of the disinfectant solution should be 10 minutes minimum to 15 minutes maximum.
10. After the recommended exposure time, all exterior surfaces of the device are to be wiped with a clean lint-free cloth dampened with drinking quality water no warmer than room temperature. Dry the device with a dry, clean lint-free cloth. This is to remove residue that may stain or leave a film on the device, especially after repeated disinfections.

Disinfection for Multi-Patient Use

NOTE– The disinfection process can only be completed by the manufacturer or by an appropriately trained individual.

	Recommended disinfection interval	Number of disinfection cycles	Compatible disinfection method
Enclosure, power cord	Between patients	30	1:5 chlorine bleach (5.25%) and water solution
Collection container, filter, tubing and carrying case	Do not clean, replace between patients	N/A	N/A

SPECIFICATIONS/CLASSIFICATIONS

Size	H x W x D inches (cm)
7325P & 7325D Series	6.9" x 7.0" x 7.1" (17.5 cm x 17.8 cm x 18.0 cm)
Weight	lb. (kg)
7325P Series	3.8 lb (1.72 kg) not including power supply
7325D Series	3.4 lb (1.54 kg) not including power supply
Electrical Requirements	100-240 V ~ 50/60 Hz .75 A max; 12 V DC, 33 W max
Internal Rechargeable Battery	
7325P Series	Factory Equipped
7325D Series	Not Factory Equipped
Vacuum Range	
7325P & 7325D Series	50 to 550 mm Hg +/- 5%
Air Flow @ pump inlet	27 LPM (free flow) typical (may be less when running from internal battery)*
Container Capacity (The capacity of the collection container is 90% of the container's fill level when operated up to a 20° tilt angle in any direction.)	
7325P & 7325D Series	800 ml (cc) Disposable (2 filter options)
7325P & 7325D Series - Optional	1200 ml (cc) Reusable
Environmental Conditions	
Operating Temperature Range	0°C to 40°C (32°F to 104°F)
Operating Relative Humidity	15-93% non-condensing
Operating Atmospheric Pressure	770 hPa to 1060 hPa (~7500 ft to ~1400 ft below sea level)
Storage & Transport Temperature Range	-25°C to 60°C (-13°F to 140°F)
Storage & Transport Relative Humidity	0-93% non-condensing
Limited Warranty	
7325P Series	Two-year Limited, excluding container
7325D Series	Two-year Limited, excluding container
Internal Battery	One-year Limited
Approvals	
7325P & 7325D Series	IEC 60601-1:2005+AMD1:2012; EN 60601-1-2: 2015; ISO 10079-1:2015; IEC 60601-1-2:2014; IEC 60529:1989+AMD1:1999 +AMD2:2013; IP33; IEC 60601-1-6:2010; IEC 60601-1-11:2010 CONFORMS TO AAMI STD. ES 60601-1, AAMI STD. HA 60601-1-11, IEC STD. 60601-1-6, ISO STD. 10079-1 CERTIFIED TO CSA STD. C22.2 NO. 60601-1, NO. 60601-1-11, IEC STD. 60601-1-6, ISO STD. 10079-1
Equipment Classifications	
With respect to protection from electric shock	Class II and internally powered
Degree of protection against electric shock	Type BF Applied Parts
Degree of protection against ingress of liquids	IP33 and ordinary power supply
Mode of Operation	Non-Continuous Operation: 30 minutes on, 30 minutes off
Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.	
ISO Classification	
7325P Series only - Electrically powered medical suction equipment for transport use according to EN ISO 10079-1:2015	
High Vacuum/High Flow	
7325D Series - Electrically powered medical suction equipment for non-transport use according to EN ISO 10079-1:2015	
Disposable Container with Internal Filter Patent: US9457135	

* Conditions may vary based on altitude above sea level, barometric pressure, and temperature.

Typical operating sound level is <59 dBA as tested per ISO 10079-1:2015.

LIMITED WARRANTY

Drive DeVilbiss Healthcare warrants the Drive DeVilbiss Vacu-Aide Suction Device (excluding carrying case and collection container) under the conditions and limitations stated below. Drive DeVilbiss warrants this equipment to be free from defects in workmanship and materials for two (2) years (Internal rechargeable battery is warranted for one (1) year) from date of factory shipment to the original purchaser (typically the healthcare provider). These warranties are limited to the Buyer of new equipment purchased directly from Drive DeVilbiss, or one of its Providers, Distributors, or Agents. Drive DeVilbiss' obligation under this warranty is limited to product repair (parts and labor) at its factory or at an Authorized Service Center. Routine maintenance items, such as filters, are not covered under this warranty, nor does it cover normal wear and tear.

Warranty Claims Submissions

The original purchaser must submit any warranty claim to Drive DeVilbiss or to an Authorized Service Center. Upon verification of the warranty status, instructions will be issued. For all returns, the original purchaser must (1) properly package the unit or parts in a DeVilbiss approved shipping container, (2) properly identify the claim with the Return Authorization Number, and (3) send the shipment freight prepaid. Service under this warranty must be performed by Drive DeVilbiss and/or an Authorized Service Center.

NOTE– Be sure to retain a dated proof of purchase document to verify unit is within 2-year warranty period.

NOTE– This warranty does not obligate Drive DeVilbiss to provide a loaner unit during the time that a suction device is undergoing repair.

NOTE– Replacement components are warranted for the unexpired portion of the original Limited Warranty.

This warranty shall be voided, and Drive DeVilbiss shall be relieved of any obligation or liability if:

- The device has been misused, abused, tampered with, or used improperly during this period.
- Malfunction results from inadequate cleaning or failure to follow the instructions.
- The equipment is operated or maintained outside the parameters indicated in the Drive DeVilbiss operating and service instructions.
- Unqualified service personnel conduct routine maintenance, servicing, or repairs.
- Unauthorized parts or components are used to repair or alter the equipment.
- Unapproved filters are used with the unit.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THE EXPRESS LIMITED WARRANTY AND TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. THIS IS THE EXCLUSIVE REMEDY AND LIABILITY FOR CONSEQUENTIAL AND INCIDENTAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE LIMITATION OR EXCLUSION OF CONSEQUENTIAL OR INCIDENTAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

NOTE– *International warranties may vary.*

Manufacturer's Note

Thank you for choosing a Drive DeVilbiss Suction Unit. We want you to be a satisfied customer. If you have any questions or comments, please send them to our address on the back cover.

For Service Call Your Authorized Drive DeVilbiss Healthcare Provider:

Phone	Purchase Date	Serial #
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ELECTROMAGNETIC COMPATIBILITY INFORMATION



WARNING



MR Unsafe

1. Do not bring the device or accessories into a Magnetic Resonance (MR) environment as it may cause unacceptable risk to the patient or damage to the Vacu-Aide or MR medical devices. The device and accessories have not been evaluated for safety in an MR environment.
2. Do not use the device or accessories in an environment with electromagnetic equipment such as CT scanners, Diathermy, RFID and electromagnetic security systems (metal detectors) as it may cause unacceptable risk to the patient or damage to the Vacu-Aide. Some electromagnetic sources may not be apparent, if you notice any unexplained changes in the performance of this device, if it is making unusual or harsh sounds, disconnect the power cord and discontinue use. Contact your home care provider.
3. This device is suitable for use in home and healthcare environments except for near active HF SURGICAL EQUIPMENT and the RF shielded room of an ME SYSTEM for magnetic resonance imaging, where the intensity of Electromagnetic DISTURBANCES is high.

Cables and maximum lengths of cables

DC power cord (cigarette lighter adapter) #7304D-619 maximum length = 2.2 meter (7.2 ft)



WARNING

Use of accessories and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.



WARNING

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.



WARNING

Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the Vacu-Aide, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.