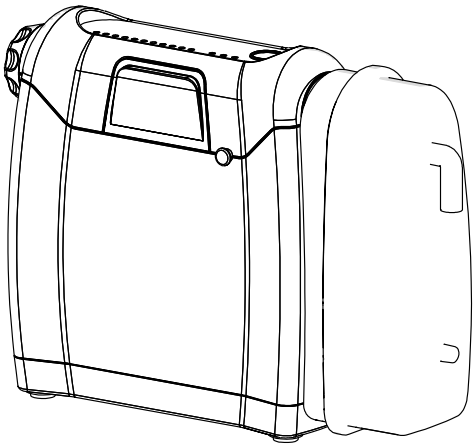

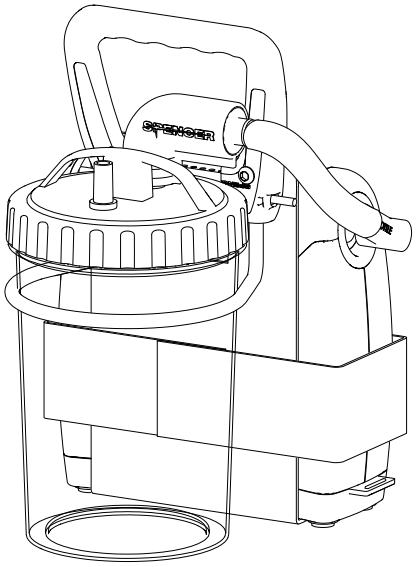

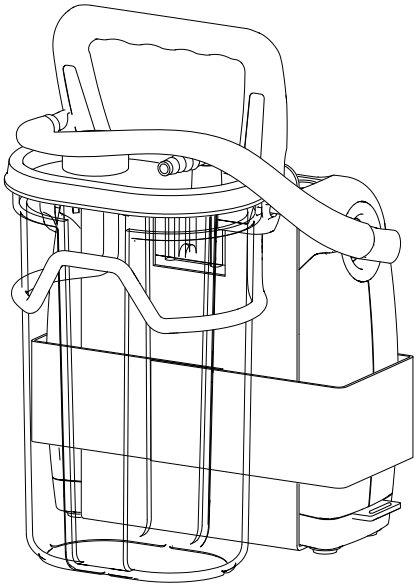

User Manual
JET COMPACT & JET WIRE
Suction units

EN

jet compact

jet wire

CE 0044 Medical Device Class IIa, in compliance with Directive 93/42/EC Medical Devices

Notice

The information in this manual is subject to change without notice.

The images are included as examples and may vary slightly from the actual device images.

Spencer Italia S.r.l. does not assume any responsibility for possible errors contained herein and for damages, accidents or consequential damages related to the supply, performance or use of this manual.

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SPENCER ITALIA SRL – Via Provinciale n° 12
43038 Sala Baganza (PR) – Italy

INDEX

1. MODELS

The basic models shown below may be subject to implementation or modification without notice.

JET COMPACT
JET WIRE 1000 R
JET WIRE 1000 B

2. INTENDED USE

The device is intended for the removal of fluids from the airway or respiratory support system and infectious material from wounds. The device creates a negative pressure (suction) that draws the fluids through a disposable tube connected to a collection vessel. Fluids are trapped in the collection vessel for proper disposal. Use should only be prescribed by a physician. To prolong product life and maximize performance, follow recommended operation and maintenance procedures.

3. STANDARD OF REFERENCE

As Distributor or End User of the products manufactured and/or marketed by Spencer Italia S.r.l., it is strictly required to know the legal provisions in force in the country of destination of the goods, applicable to the devices object of the supply (including the regulations concerning technical specifications and/or safety requirements) and, therefore, to know the fulfilments necessary to ensure the conformity of the same products to all the legal requirements of the territory.

Reference standard
IEC 601-1; IEC 68; CAN/CSA-C22.2 No. 601.1-M90; UL 2601-1, CE EN 60601-1-2, ISO10079-1:1999 In addition to the standards listed above, the JET COMPACT is compliant with RTCA/DO-160E - Section 21 Category M (Battery powered only; Commercial aircraft, aerial equipment)

4. INTRODUCTION

4.1 Using the manual

The purpose of this manual is to provide the caregiver with the information necessary for the safe and proper use and maintenance of the device.

Note: The manual is an integral part of the device, therefore it must be kept for the entire life of the device and must accompany the device in any change of destination or ownership. In the event that there are instructions for use relating to another product, different from the one received, it is necessary to contact the Manufacturer immediately before use.

The User Manuals of Spencer products can be downloaded from http://support.spencer.it or contact the Manufacturer. Exceptions are made for articles whose essentiality and reasonable and foreseeable use are such that it is not necessary to draw up instructions in addition to the following warnings and indications on the label.

Regardless of your past experience with similar devices, please read this manual carefully before installing, operating or servicing the product.

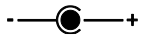
4.2 Device labelling and traceability control

Each device is provided with a label, placed on the device itself and/or on the packaging, which contains the identification data of the Manufacturer, of the product, CE marking, serial number (SN) or lot (LOT). This must never be removed or covered.

In the event of damage or removal, request a duplicate from the manufacturer, otherwise the warranty will be voided, as the device can no longer be traced.

Directive 93/42/EC requires manufacturers and distributors of medical devices to keep track of their location. If the device is at a location other than the address to which it was sent, or if it has been sold, donated, lost, stolen, exported or destroyed, permanently removed from use, or if the device has not been delivered directly by Spencer Italia S.r.l., register the device at http://service.spencer.it, or inform Customer Service (see § 4.4).

4.3 S funnels

	**General and/or specific warnings**	~	**Alternating current**
	**Standby - On/Off**		**Continuous current**
	**IP12: vertically falling drops have no damaging effects as long as the cover is positioned within an angle of no more than 15° from the vertical.**		**Central positive pole indicator**
	**Applied part type BF**		**Warnings for the correct disposal of the product according to the European Directive 2012/19/EU**
	**7310PD-S 7310PR-S**	**Vacuum unit model identification**	
	**Serial number**		
	Caution: Federal Law restricts this device to sale by or on the order of a licensed practitioner.		

4.4 Warranty

Spencer Italia S.r.l. guarantees the products against manufacturing defects for a period of one **year starting from the date of purchase with the** exception of batteries whose guarantee is limited to 90 days.

For information regarding the correct interpretation of the instructions, use, maintenance, installation or return, please contact Spencer Customer Service tel. +39 0521 541111, fax +39 0521 541222, e-mail service@spencer.it. To facilitate assistance operations, always indicate the lot number (LOT) or serial number (SN) on the label applied to the packaging or to the device itself.

Warranty and service conditions are available at http://support.spencer.it.

Note:

Record and keep with these instructions: lot (LOT) or serial number (SN) if any, place and date of purchase, date of first use, date of inspection, name of users and comments.

5. WARNINGS

Warnings, notes and other important safety information are provided in this section and clearly visible throughout the manual.

User training

***Note**: In spite of all the efforts, laboratory tests, tests, instructions for use, standards do not always succeed in reproducing practice, so that the results obtained in the real conditions of use of the product in the natural environment can sometimes differ significantly.*

The best instructions are the continuous practice of use under the supervision of competent and trained personnel.

- Regardless of the level of experience acquired in the past with similar devices, we recommend that you carefully read and understand the contents of this manual before installing, using the product or carrying out any maintenance work. In case of doubt, contact Spencer Italia S.r.l. to obtain the necessary clarifications.
- The product should only be used by *medical personnel who are* trained in the use of this product and not in other similar products and who have the necessary clinical knowledge of artificial ventilation in order to be able to set the values available on the device correctly in relation to the patient's clinical condition.
- The suitability of the users for the use of the product can be certified with the registration of the training, in which the persons trained, the trainers, the date and the place are specified. **This documentation must be kept for at least 10 years from the end of the product's life and must be made available to the competent Authorities and/or the Manufacturer, when requested. Failure to do so will result in the competent authorities applying any penalties.**
- Do not allow untrained persons to assist in the use of this product as they may cause injury to themselves or others.

Note: Spencer Italia S.r.l. is always available to carry out training courses.

Installer training

The installer of the device must be able to ensure that all equipment, systems, vessels and connections comply with the safety standards and regulations applicable to them. This requires knowledge of all applicable regulations and standards.

If these conditions are not met, the safety of the device and the operators would be compromised.

Product features

It is forbidden to use the product for any other purpose than that described in the User Manual.

- Before each use, always check the integrity of the product, as specified in the User Manual and in case of anomalies/damage that may compromise its functionality/safety, it is necessary to remove it from service immediately and contact the Manufacturer.
- If a malfunction is detected, immediately use a similar device to ensure continuity of operations.
- The product must not undergo any tampering (modification, retouching, addition, repair), otherwise we decline any responsibility for incorrect operation or any damage caused by the product itself; furthermore the CE certification (when required by law) and the product warranty are void.
- Whoever modifies or causes to be modified or re-processed the products manufactured by Spencer Italia S.r.l. in such a way that they no longer serve the intended purpose or no longer provide the foreseen performance must comply with the conditions valid for the first marketing.
- When using the devices, position and adjust them so that they do not hinder the operations of the operators and the use of any other equipment.
- Ensure that you have taken every precaution to avoid hazards from contact with blood or body secretions, if applicable.
- Ensure that the attachment of the device is suitable to keep it fixed inside the sanitary vehicle under all circumstances.
- The **warranty seals, if present on the product, must not be removed**; otherwise the Manufacturer no longer recognizes the product warranty and declines all responsibility for incorrect operation or any damage caused by the product itself.
- Avoid contact with sharp objects.
- Temperature of use: from 0°C to +40°C
- Working pressure: from 70 to 106 kPa
- Relative humidity for use and storage: 0% - 95%.

Storage

- The product must not be exposed or come into contact with thermal sources of combustion and flammable agents, but must be stored in a dry, cool place, protected from light and sun.
- Do not store the product under other materials that are more or less heavy, which may damage the structure of the product.
- Store and transport the product in its original packaging, otherwise the warranty is void.
- Before storing the device it is necessary to recharge the batteries, remove them and store them in a separate environment with temperature between -20°C and 35°C.
- Storage temperature: -40°C to +70°C
- Relative humidity for use and storage: 0% - 95%.
- Pressure: from 70 to 106 kPa

Maintenance/Cleaning

Spencer Italia S.r.l. declines all responsibility for any damage, direct or indirect, which is a consequence of improper use of the product and spare parts and/or any repair work carried out by a subject different from the Manufacturer, who uses internal and external specialized and authorized technicians; furthermore the guarantee is invalidated.

- During all control, maintenance and sanitization operations the operator must wear adequate personal protective equipment, such as gloves, goggles, etc..
- Establish a schedule for maintenance, periodic inspections, if required by the Manufacturer in the Operator's Manual, and identify a contact person who meets the basic requirements set forth in the Operator's Manual.
- **The frequency of testing is determined by factors such as legal requirements, type of use, frequency of use, environmental conditions during use and storage.**
- Use only original components/spare parts and/or accessories or those approved by Spencer Italia S.r.l., in order to carry out any operation without causing alterations or modifications to the product.

- The product and all its components, if washed, must be left to dry completely before storage.

Regulatory requirements

As Distributor or End User of the products manufactured and/or marketed by Spencer Italia S.r.l., it is strictly required to know the legal provisions in force in the country of destination of the goods, applicable to the devices object of the supply (including the regulations concerning technical specifications and/or safety requirements) and, therefore, to know the fulfilments necessary to ensure the conformity of the same products to all the legal requirements of the territory.

- Promptly inform Spencer Italia S.r.l. (already in the phase of requesting an estimate) about any possible fulfilments by the Manufacturer necessary for the conformity of the products to the specific legal requirements of the territory (including those deriving from regulations and/or normative dispositions of another nature).

- Act, with due care and diligence, to help ensure compliance with the general safety requirements of the devices placed on the market, providing end users with all the information necessary to carry out the periodic review activities on the devices supplied, exactly as indicated in the User Manual.
- **Participate in the safety control of the product** placed on the market, transmitting the information concerning the risks of the product to the Manufacturer as well as to the Competent Authorities for the actions of their respective competence.
- Without prejudice to the above, the Distributor or End-user shall assume as of now, all responsibilities connected to the non-fulfilment of the above mentioned duties with the consequent obligation to indemnify and/or hold harmless Spencer Italia S.r.l. from any possible prejudicial effect.

General warnings for medical devices

In addition to the general warnings, the user must carefully read the following warnings.

- It is not expected that the application of the device will last longer than the time necessary for first aid operations and the subsequent transport phases to the nearest rescue point.
- During the use of the device, the assistance of qualified personnel must be guaranteed and at least one doctor trained in the use of the product must be present.
- Follow your organization's approved internal procedures and protocols.
- For disposable accessories, use only once and for only one patient. Do not wash or sterilize after use. Reuse may cause cross infection. Some symbols in this manual refer to standard accessories found in the product you have purchased.
- Disinfection activities (and sterilization of the accessories for which it is foreseen) must be carried out according to the validated cycle parameters, reported in the specific technical standards. Sterilization in autoclave can decrease the life time of the devices.
- Do not use accessories after the expiration date printed on the package, if any.
- With reference to Legislative Decree no. 46 of 24 February 1997, amended by Legislative Decree no. 37 of 25/01/2010. Legislative Decree no. 37 of 25/01/2010 - Acknowledgement of Directive 93/42/EEC and 2007/47/EC, concerning Medical Devices, it should be noted that public or private operators who, in the exercise of their activity, detect an accident involving a medical product are required to notify the Ministry of Health, within the terms and in the manner established by one or more ministerial decrees, and the Manufacturer. Public or private health operators are obliged to inform the Manufacturer of any other inconvenience that may allow the adoption of measures to guarantee the protection and health of patients and users.

6. SPECIFIC WARNINGS

- The device is intended for use in professional healthcare environments only, except in the vicinity of MRI shielded environments and in the vicinity of high frequency surgical equipment. The installation must take into account the parameters indicated in paragraph 9 in relation to electromagnetic compatibility.
- Portable and mobile radio communication devices can affect the operation of the device.
- The installation and positioning of the device shall take into account the tables in paragraph 9 in order to ensure that its essential performance and basic safety are maintained.
- The use of electrical connection cables or transformers not approved by the manufacturer may adversely affect the electromagnetic performance of the device.
- The use of RF equipment, including antennas, may affect the device. It is necessary to respect the distances from the device and its wiring according to the specifications described in paragraph 9.
- Failure to comply with EMC warnings may impair the essential performance and basic safety of the device.
- Portable RF equipment should not be used closer than 30 cm to any part of the device, including wiring. Failure to do so may impair the performance of the device.
- Should only be used by medical personnel trained in the use of this product.
- The user must not have any impairments that prevent the correct reading and interpretation of the information and operation of the controls.
- Do not wash or clean the device with water jets or pressurized air.
- Do not use drying machines.
- If your device comes with accessories that have a limited lifespan, do not use them beyond the expiration date printed on the package.
- The device must not be exposed or come into contact with thermal sources of combustion and flammable agents.
- It must be stored in a dry, cool place, protected from light and not exposed to the sun.
- Do not store the device underneath other materials that may damage the structure of the device.
- Store and transport the device with its original packaging.
- Position and adjust the device in such a way that it does not obstruct the operations of rescuers and the use of rescue equipment.
- Do not place the device where it could fall to the ground or into a sink and come into contact with water.
- Do not allow the device to come into contact with water or other liquids.
- Do not touch the device if it has come into contact with water, unplug the power cord immediately.
- To reduce the risk of burns, electrocution, fire or personal injury, close supervision is required when the device is used by disabled persons or adolescents.
- Use the device only for its intended purpose as described in these operating instructions.
- Never use the device if the power cord or plug shows signs of damage, in which case return the device to the service center.
- Never use the device if it is not working properly, in this case hand it over to the service centre.
- Never use the device if it shows signs of damage or has been dropped, in which case return it to the service center.
- Never use the device if it has come into contact with water, in which case hand it over to the service centre.

- Keep the power cord away from heat sources
- The vacuum cleaner is intended exclusively for the collection of non-flammable fluids as part of medical procedures.
- Improper use of the device while performing medical procedures can result in injury or death.
- Suctioning must be carried out in strict accordance with the procedures specified by the authorised health officer.
- Some connections or accessories may be unsuitable for the supplied conduits.
- All connections and accessories must be tested for proper fit before use.
- Do not use the equipment in the presence of flammable gas mixtures or anesthetics.
- If the unit is operated in a non-vertical position or on an uneven surface, the shutoff valve on the receptacle may activate prematurely closing the suction before the receptacle has reached full capacity. Always keep a replacement receptacle available.
- Do not attempt to connect suction hoses directly to the suction inlet port.
- Use only with manufacturer's approved containers.
- Always keep a spare container on hand to use if the container being used becomes full or the filter gets wet.

Warning

Medical electrical equipment requires special attention with regard to electromagnetic compatibility and must be installed and operated in accordance with the electromagnetic compatibility information provided in the accompanying documentation.

Portable and mobile RF communication equipment can affect the operation of electromedical instruments.

Avoid using the equipment or system in direct proximity to other equipment. If it is necessary to use it alongside or directly above or below other devices, carefully observe their operation in relation to the configuration used.

NOTE- *The electromagnetic compatibility warnings and other guidelines provide the customer or user with essential information to determine the suitability of the equipment or system in the electromagnetic environment of use and to manage that environment to allow the equipment or system to operate as intended without disturbing other devices or other electrical equipment not intended for medical use.*

Guidance and manufacturer's declaration - Emissions from all equipment and systems			
This device is intended for use in the electromagnetic environment specified below. It is the responsibility of the purchaser or to the operator of the device to ensure that the instrument is used in such an environment.			
Emissions testing	**Compliance**	**Electromagnetic environment - guidance**	
CISPR 11 RF emissions	Group 1	The device uses RF energy only for internal functions. Therefore, its RF emissions are very low and should not interfere with electronic equipment in the vicinity of the system.	
CISPR 11 RF emissions Harmonic emissions IEC 61000-3-2	Class B	The device is suitable for use in all environments, including those used for residential use and directly connected to the public low-voltage power supply network commonly used in homes.	
Emissions due to voltage fluctuations/flicker IEC 6100-3-3	Compliant		
Immunity tests	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Discharges electrostatic discharge (ESD) IEC 61000-4-2	±6 kV Contact ±8 kV air	±6 kV Contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If they are synthetic, the relative humidity must be at least 30%.
Fast transients/bursts IEC 61000-4-4	±2 kV network of main power supply in CA	±2 kV network of main power supply in CA	The quality of the power grid should match that expected in a typical commercial or hospital environment.
Overvoltage transitional IEC 61000-4-5	±1 kV differential ±2 kV common	±1 kV differential ±2 kV common	The quality of the power grid should match that expected in a typical commercial or hospital environment.
Voltage drops, short interruptions and voltage variations on the lines of feed in entry IEC 61000-4-11	>95% drop for 0.5 cycles >60% drop for 5 cycles >30% drop for 25 cycles >95% drop for 5 seconds	>95% drop for 0.5 cycles >60% drop for 5 cycles >30% drop for 25 cycles >95% drop for 5 seconds	The quality of the power supply should match that expected in a typical commercial or hospital environment. If the needs of the user of the device require it to be to ensure continued operation even during power outages, it is recommended to power the system with an uninterruptible power supply or battery.

Immunity tests	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Magnetic fields at mains frequency (50/60 Hz) IEC 61000-4-8	3A/m	3A/m	The magnetic field at the grid frequency should match that of a typical location in a typical commercial or hospital environment.
RF conduct IEC 61000-4-6	3 Vrms from 150 kHz to 80 MHz	V1 = 3 Vrms	Portable and mobile radio frequency communication equipment may be used at a distance from the device that is not less than the recommended distance, calculated and indicated below: D=(3.5/V1)√P
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	E1 = 3V/m	D=(3,5/E1)√P 80 MHz to 800 MHz D=(7/E1)√P 800 MHz to 2.5 GHz Where P is the maximum rated power in W and D is the recommended distance in metres. The strength of the field generated by fixed transmitters, as determined by an electromagnetic site survey, should be less than the compliance levels (V1 and E1). Interference may occur in the vicinity of equipment containing a transmitter.
For transmitters whose maximum rated output power is not listed in the table above, the recommended distance d in metres (m) can be calculated from the equation applicable to the frequency of the transmitter, where P is the maximum rated output power of the transmitter, expressed in W, according to the transmitter manufacturer. Note 1. At 80 MHz and 800 MHz, apply the recommended distance for the higher frequency range. These guidelines may not apply in some situations. Absorption and reflection from structures, objects, and people affect electromagnetic propagation.			
Recommended distances between portable and mobile RF communications equipment and this device This is NOT a support system			

vital.

This device is intended for use in an electromagnetic environment in which radiated RF interference is low. The purchaser or operator of this device can help prevent electromagnetic interference by ensuring the minimum recommended distance between the system and any portable and mobile RF communications equipment, based on the maximum output power rating of the equipment.

Maximum power in output (W)	**Recommended device distance (m)**		
	150 kHz to 80 MHz D=(1,1667)√P	80 MHz to 800 MHz D=(1,1667)√P	800 MHz to 2.5 GHz D=(2.3433)√P
0,01	0,11667	0,11667	0,23333
0,1	0,36894	0,36894	0,73785
1	1,1667	1,1667	2,3333
10	3,6894	3,6894	7,3785
100	11,667	11,667	23,333

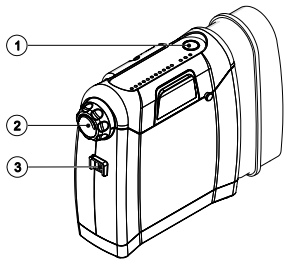
For transmitters whose maximum rated output power is not listed in the table above, the recommended distance d in metres (m) can be calculated from the equation applicable to the frequency of the transmitter, where P is the maximum rated output power of the transmitter, expressed in W, according to the transmitter manufacturer. Note 1. At 80 MHz and 800 MHz, apply the recommended distance for the higher frequency range. Note 2. guidelines may not be applicable in some situations. Absorption and reflection from structures, objects and people affect electromagnetic propagation.

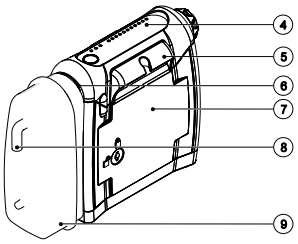
7. TECHNICAL DATA

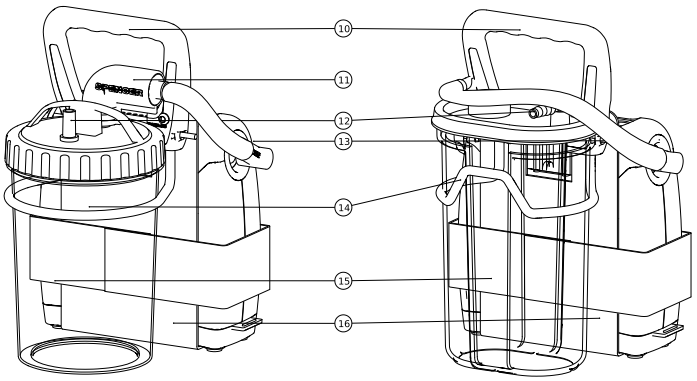
7.1 Technical Data

	JET COMPACT	JET WIRE 1000 R	JET WIRE 1000 B
Dimensions (WxDxH)	245x70x185 mm	185x200x260	185x175x260
Weight	1.54 kg	1.98 kg	2,55 ± 0,2 kg
Electrical requirements	100-240 VAC 50/60 Hz 0.75 A max; 12 VDC ± 10% , 33 W max		
Depression levels	From 50 to 550 mmHg		
Air flow (pump inlet)	27 LPM (free flow) typical (can be lower with battery power)		
Collecting vessel capacity	300 ml	1000 ml	1000 ml
Operating temperature	0°C - 40°C		
Relative operating humidity	0-95%		
Operating atmospheric pressure	10.2 Psi (70 kPA) - 15.4 Psi (106 kPA)		
Transport and storage temperature values	40 °C - 70 °C		
Relative humidity during transport and storage	0-95%		
Transport and storage atmospheric pressure	7.3 Psi (50 kPA) - 15.4 Psi (106 kPA)		
Device classifications			
For protection against electric shock	Class I and internal power supply		
Level of protection against electric shock	Type BF Applied Parts		
Degree of protection against liquid ingress	IP12 and ordinary power supply		
Operation mode	Intermittent operation: 30 minutes ON, 30 minutes OFF		
ISO Classification	Electrically powered suction medical device for local and mobile use in compliance with ISO 10079-1 standards		
	High Flow/High Depression		

7.2 Parts list







N°	Description	N°	Description
1	Power on/off button	9	Jet Compact disposable canister
2	Vacuum adjustment knob	10	Carrying handle Wire models
3	12V DC voltage input	11	Disposable Antibacterial Filter with Wire 1000R Connection Tube
4	Panel with luminous leds	12	Suction hose connection Wire models
5	Carrying handle/catheter holder	13	Silicone connection tube
6	Suction inlet door Compact model	14	Support for Jet Wire canister
7	Battery compartment cover	15	Collection vessel
8	Suction hose connection Compact model	16	Pot support

8. PUTTING INTO OPERATION AND/OR RESTORING AFTER COMPONENTS REPLACEMENT

Battery connection

- Use a coin or flathead screwdriver to rotate the release latch.
- Remove the door by pulling the release latch upwards
- Remove the battery from the compartment and connect the connector in the board
- Replace the battery and door. Turn the latch to the locked position
- Charge the battery for 5 hours before using it

Jet Wire 1000R

- Insert the vessel in its support with the graduated scale facing outwards; Check that the "patient" entrance door is accessible.
- Place the disposable filter on the jar door marked "Vacuum".
- Connect the silicone tube to the filter from one side and insert the connection fitting to the unit in the side port
- Connect the patient hose to the vessel lid in the inlet port marked "Patient".
- Check that all connections are secure to prevent leaks.

Jet Wire 1000B

- Insert the canister in its support with the graduated scale facing outwards; Check that the "patient" entrance door is accessible.
- Connect the silicone tube to the grey fitting on the container on one side.
- Connect the fitting at the other end of the pipe to the unit in the side connection port
- Connect the patient hose to the vessel lid in the inlet port marked "Patient".
- Check that all connections are secure to prevent tank/hose leaks.
- In this version, the disposable bag is equipped with a hydrophobic filter that automatically stops suction when it becomes wet.

Jet Compact

- Connect receptacle securely by pushing in connecting fitting into open side port of unit.
- Connect the suction pipe firmly
- In this version, the disposable container is sealed and includes a hydrophobic filter that automatically stops suction when it becomes wet.

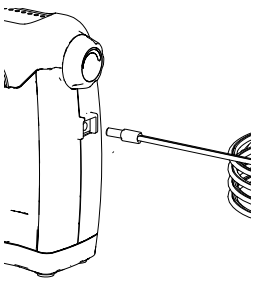
9. METHOD OF USE

Control panel symbols

⏻	On/Off
🔌	External power supplied through power transformer or cigarette lighter cable: Lights up GREEN when device is connected to external power source
🔋⚡	Battery charging: lights up in YELLOW while charging, led off when battery is charged
🪫	Low Battery: Lights up RED when the battery is low
mmHg	Unit of measurement of suction level setting: Has LEDs along the scale that light up GREEN showing the level of suction power

Power Options

POWER SUPPLY THROUGH CURRENT TRANSFORMER (OPTIONAL) - Insert the power connector of the AC to DC charger/adapter into the DC power input and connect the power cable. Plug the transformer plug into a power outlet that meets the specifications described in the technical data section.



POWER SUPPLY VIA CIGARETTE LIGHTER CABLE (SUPPLIED)

Insert the power connector in the DC power inlet of the vacuum cleaner body. Insert the cigar lighter plug at the other end of the cable in a socket with suitable voltage characteristics according to the data indicated in the paragraph "Technical data".

Too high or too low a voltage may prevent or impair the proper operation of the device.

BATTERY POWER - The unit is equipped with a high capacity rechargeable battery. To initially charge your new unit, fully charge the battery for at least 5 hours (see Charging the Battery). To use the unit on battery power, make sure it is not connected to any external power sources**.**

NOTE: During charging or operation, the power source may feel warm to the touch. This is not a malfunction.

WARNING
If the unit is not receiving power from an external source or the battery has not been charged, the low battery indicator will remain lit and the unit's performance will rapidly decrease. If the low battery symbol illuminates, use another power source to avoid interrupting the vacuuming process.

Suction level adjustment
1. After selecting the power source, turn on the unit by pressing the "On" button. The GREEN light, indicating external power, will remain on when external power is connected.
2. Occlude (block) the end of the patient tube, then adjust the suction level from 80 to 550 mmHg by turning the suction adjustment knob clockwise to increase the suction level, counterclockwise to decrease the suction level. Release and occlude once more to confirm the setting. The desired suction level can be viewed on the LED display.
NOTE - The LEDs have two brightness levels. When adjusting the suction level, the LEDs will light up in progression. When an LED is at half brightness, it means that the suction level is halfway between the previous fully lit LED and the partially lit LED. EXAMPLE: If the 150 mmHg LED is fully lit and the 200 mmHg LED is partially lit, the suction level is 175 mmHg. If the 200 mmHg LED is fully lit, the unit has reached 200 mmHg.
3. Attach the suction tip or catheter, as appropriate.
NOTE - If the unit does not maintain suction, refer to the Troubleshooting section.
NOTE - Suction ends if the liquid level reaches the float shut-off valve located on the underside of the vessel lid.
CAUTION - Further suctioning may cause damage to the suction pump and void the warranty. If you continue to suck fluid content into the unit you must service the unit.

Charging the battery
The vacuum cleaner is supplied with an internal high capacity rechargeable battery. Connect the battery and charge it before first use (refer to the section on Replacing the battery).
1. Connect the unit to an AC or DC power source.
2. The green external power light should come on, while the yellow charging light stays on while the battery is charging.
3. Make sure the yellow charging lamp is lit when charging begins. When the battery charge level is near its maximum, the yellow charging lamp may flash for a few minutes. This is normal. If the unit does not hold a charge, check that the yellow light comes on when transmitting external power via the "Off" power button. If the problem persists, contact your medical device supplier.
NOTE - A fully discharged battery requires up to 5 hours of charging (depending on remaining capacity) to fully recharge.
If the unit will not be used for an extended period of time, you should recharge the battery at least every 6 months.
A fully charged battery guarantees an operating autonomy of about 45-60 minutes with zero vacuum level (free flow).
CAUTION: Fully discharging the battery will shorten its operating life. When the low battery indicator is lit, use the unit only for a few minutes. Recharge the battery as soon as possible.

Replacing the battery
1. Use a coin or flathead screwdriver to rotate the release latch to the unlock position.
2. Remove the door by pulling the release latch upward.
3. Remove the battery from the compartment and disconnect the connector from the board .
4. Install a new battery following the reverse procedure.
5. Fully charge the battery before use.

10. CLEANING

To clean the vacuum cleaner:

- With the power supply set to "Off", disconnect the unit from all external power sources.
- Clean the outer casing with a clean damp cloth and detergent.

Do not immerse the vacuum cleaner in water as this may damage the suction pump.

- If disinfection is necessary, follow the manufacturer's instructions and dilution values.

To clean the pipe:

- Disconnect the tubing and dispose of it; both patient and connection tubing can be used for one patient.
- Cleaning, foreseen for reusable products, must be carried out in compliance with the indications provided by the Manufacturer in the User Manual, in order to avoid the risk of cross-infection due to the presence of secretions and/or residues.

Collecting vessel (not applicable for Jet Compact):
1. Press the power button to turn the unit off. Wait for the vacuum level to drop.
2. Disconnect the unit from the external power source (if applicable).
3. Remove the vessel from the unit by disconnecting the filter and patient tubing.
NOTE - *The reusable collection receptacle and lid should only be used for a single patient and should be replaced either monthly or every two months, depending on usage and cleaning method.*
4. Empty and clean the collection container and lid after each use. Wash the receptacle with a solution of hot water and dishwashing liquid and rinse with clean hot water. Then wash with a commercial disinfectant or a solution of one part vinegar to three parts hot water. Rinse thoroughly with warm water and allow to air dry. Note: When using a commercial disinfectant, carefully follow the manufacturer's instructions and dilution values.

Suction:
1. With the power on "Off", disconnect the unit from all external power sources.
2. Clean the outer housing with a clean cloth moistened with commercial disinfectant/detergent (bactericidal-germicidal).
CAUTION - *Do not immerse the vacuum cleaner in water as this may damage the suction pump.*
Pipe:
1. Disconnect the hose from the unit.
2. Thoroughly rinse the hose after each use by first running water through it and then a solution of one part vinegar to three parts hot water.
3. Rinse again with warm water and allow to air dry.
4. Clean the outside surface of the pipe by wiping it with a clean, damp cloth.

11. MAINTENANCE

Replacing the Filter and Container (Not applicable for Jet Compact)
1. Replace the antibacterial filter every month or every 2 months OR immediately in the event of a spill.
2. Remove the antibacterial filter by disconnecting it from the suction unit/cover assembly.
3. Replace it with a new antibacterial filter.
NOTE - *Make sure the clear side of the filter marked <In> is facing the receptacle.*
NOTE - *Use only the antibacterial filter supplied by Spencer or one of its distributors. Use of different components may contaminate the unit or reduce performance and void the warranty.*
4. Replace the collection container either monthly or every two months, depending on usage and cleaning method.

12. FAULT MANAGEMENT TABLE

NOTE - *Refer to the following section on Troubleshooting before contacting your equipment supplier:*
DANGER
Electrical Shock Hazard. Do not attempt to open or remove the module as none of the internal components can be repaired by the user. If service is required, return the vacuum cleaner to a qualified Spencer supplier or authorized service center. Opening or tampering with the unit will void the warranty.
NOTE*: If the problem persists, contact your medical device supplier.*

Problem	Action
Unit does not power on. (Green external power indicator should be illuminated when power is applied.)	1. Check power sources and connections. 2. Ensure wall outlet is live by plugging in a lamp. 3. Check that battery is fully charged.
Pump runs, but no vacuum.	1. Check that all tubing is connected properly. 2. Check tubing connections for breaks, leaks, or occlusions. 3. Ensure that float shut-off is not activated due to full bottle. 4. Check for leaks or cracks in bottle assembly.
Low vacuum.	1. Use vacuum adjustment knob to increase vacuum level. 2. Check system for leaks.
Battery will not hold a charge.	1. Confirm battery is connected (refer to Set-Up). 2. Verify that charge light turns on. 3. Check electrical connections during charging. 4. Ensure wall outlet is live by plugging in a lamp. If problem continues, contact your equipment provider.

13. ACCESSORIES/SPARE PARTS

RISC004	**JET SPARE BATTERY PACK**
SC75001	**300ml CANISTER WITH TUBE**
SC73069	**1000 ML REUSABLE CANISTER W/LID**
RISC014	**FILTER WITH CONNECTOR FOR WIRE 1000R**
SC73016E	**STERILE SUCTION TUBE**
RISC015	**SILICON CONNECTION TUBE FOR WIRE 1000B**

Manufacturer:
DeVilbiss Healthcare LLC
100 DeVilbiss Drive
Somerset, PA 15501-2125 USA

European Representative:
DeVilbiss Healthcare GmbH
Kamenzerstraße 3
68309 Mannheim
Germany