

emergency



# ACCUVAC Basic

**Suction pump**

*Description and Operating Instructions*

**WEINMANN**  
medical technology

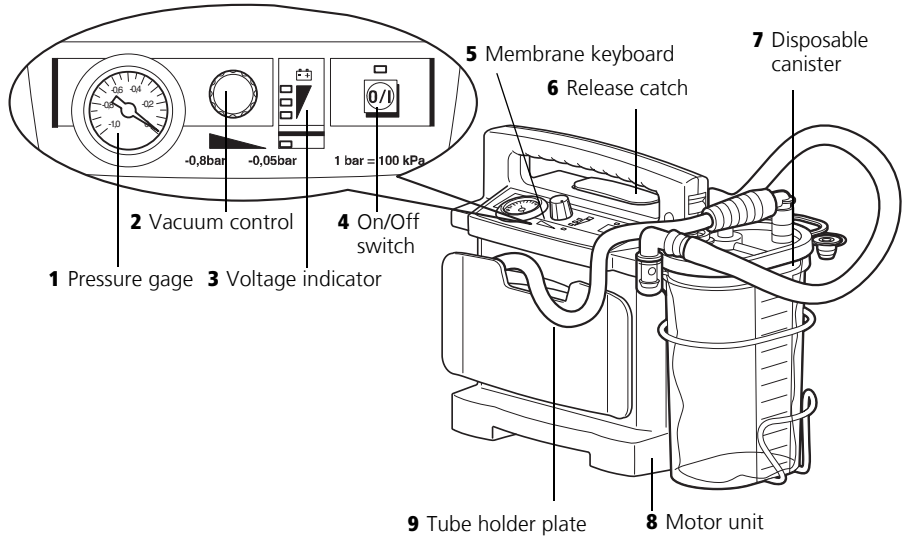
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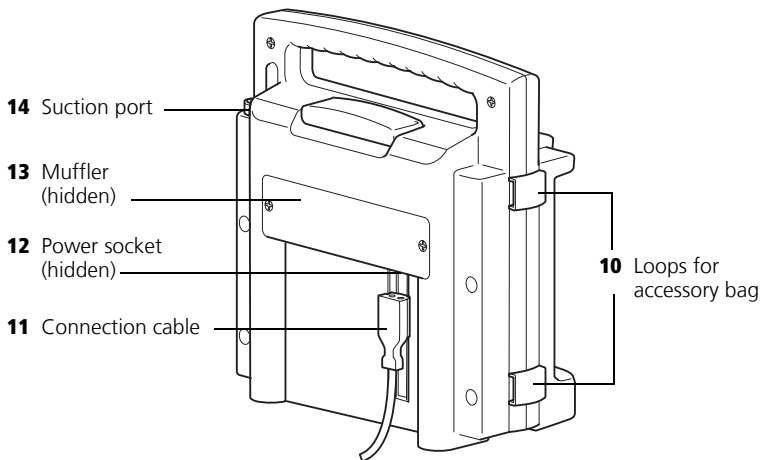
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# 1. Overview

## ACCUVAC Basic from front with disposable collection canister

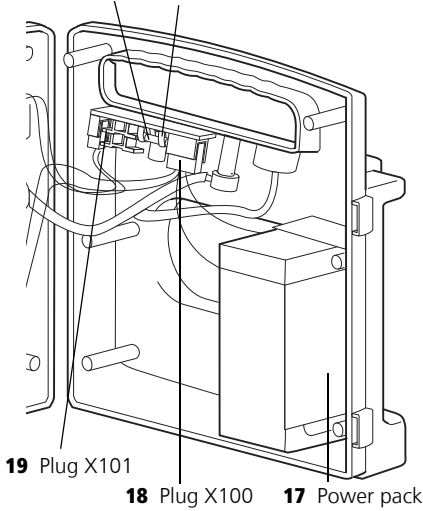


## ACCUVAC Basic from rear without collection canister

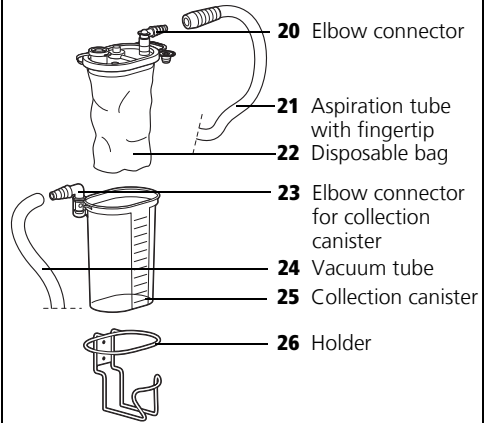


## ACCUVAC Basic interior

15 Fuse F100 16 Fuse F101 (hidden)

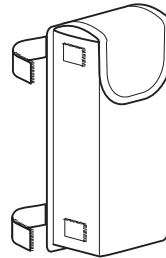
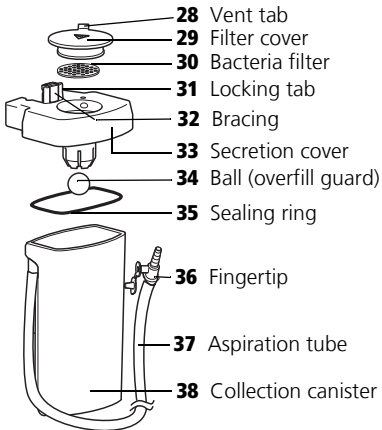


## Disposable collection canister

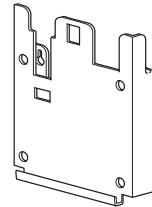


## Accessories and replacement parts

27 Re-usable collection canister WM 10630



Accessory bag  
WM 10655



Wall bracket  
WM 15208

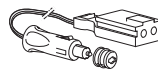


39 Holder set WM 15271

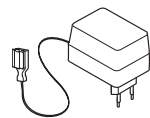
## Power supply (partly included in scope of supply, see section 10.)



Mains / charger unit FW7405M/14,  
complete WM 2610

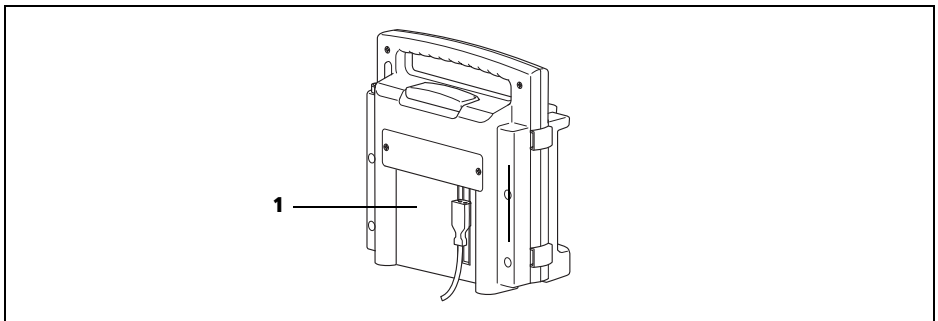


Connection cable  
WM 10650



Adapter/charger plug

# 1.1 Symbols on the rating plate



	Symbol	Meaning
1	SN	Serial number of device
		Year of manufacture
		Direct voltage
	CE 0197	CE symbol (confirms that the product conforms to the applicable European directives)
		Degree of protection against electric shock: appliance type BF
	IPX1	Protection against ingress of water
		Do not dispose of device in domestic waste

# 1.2 Symbols on the packaging

Symbol	Meaning
SN	Serial number of device
	Permitted temperature for storage: -40 °C to +70 °C
CE 0197	CE symbol (confirms that the product conforms to the applicable European directives)

## 1.3 Special symbols on the appliance

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### Re-usable collection canister



The symbol on the filter cover draws attention to the built-in bacteria filter. This must be changed or sterilized after use to prevent the risk of infection (see “6. Hygienic preparation” on page 30).

# 2. Description

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## 2.1 Intended use

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ACCUVAC Basic is a mobile, portable, electrically operated medical aspirator for temporary use with adults, children and infants:

- aspirating accumulations of blood, secretions and food from the oral cavity, the nose and throat region and the bronchial system;
- deflating vacuum mattresses and inflatable splints.

In expert hands, the ACCUVAC Basic can eliminate obstructions in the airways and so prevent the risk of respiratory failure. It can be used in buildings, in the open air and during transport.



ACCUVAC Basic must **not** be used:

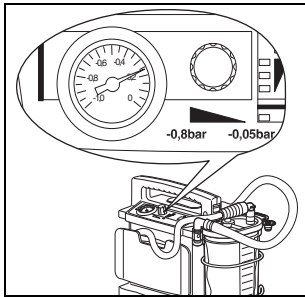
- in medical rooms where potential equalization is necessary (e.g. heart surgery);
- in explosion-risk areas.
- for drainage in low-vacuum conditions (e.g. drainage of wounds or the thorax).

## 2.2 Function

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An electrically operated diaphragm pump generates the vacuum necessary for aspiration.

The appliance can optionally be powered by a rechargeable internal power pack or can also be supplied by an external direct voltage source with 12.0 - 13.8 V.



Use the vacuum control to set the desired vacuum, which is continuously variable between  $-0.05$  bar and  $-0.8$  bar. You can read off the set value on the pressure gage.

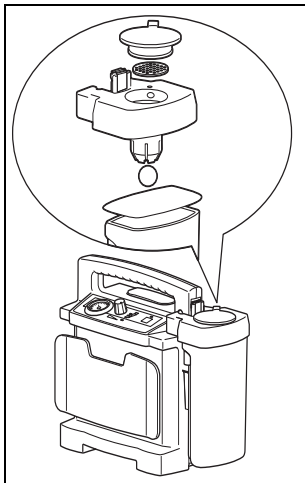
The aspirated material passes through the aspiration tube into the collection canister.

### Re-usable collection canister

The re-usable collection canister is fixed to the side of the motor unit and directly connected to the suction port of the motor unit.

A replaceable hydrophobic bacteria filter in the secretion cover prevents bacteria and droplets of moisture from finding their way into the motor unit and passing into the environment via the muffler.

The bacteria filter is designed for multiple re-use and sterilisation.



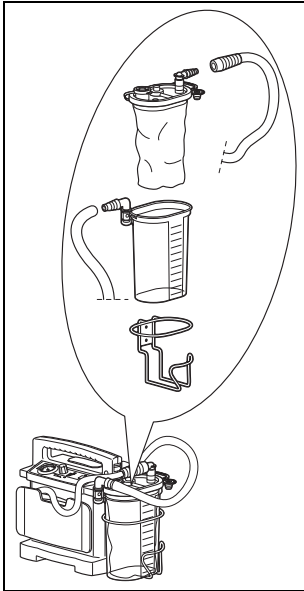
### Important

Do not immerse the bacteria filter in disinfectant liquid, as this adversely affects its hydrophobic properties.



An overflow system prevents secretions from entering the motor unit. The ball floats on the surface of the secretion until it blocks the exit.

### **Disposable collection canister**



The disposable collection canister consists of the collection canister itself, the disposable collection bag, the aspiration tube with fingertip and the vacuum tube.

The disposable collection canister is inserted in the holder screwed on the side of the motor unit.

The vacuum tube of the disposable canister is pushed onto the suction port of the motor unit.

The aspirated material passes through the aspiration tube into the disposable collection bag. The disposable collection bag and the aspiration tube are disposables. When the disposable collection bag is full, you can remove it from the collection canister and dispose of it complete with contents.

An overflow valve filter is integrated in the disposable collection bag. This prevents secretions and liquid from finding their way into the motor unit and passing into the environment via the muffler.

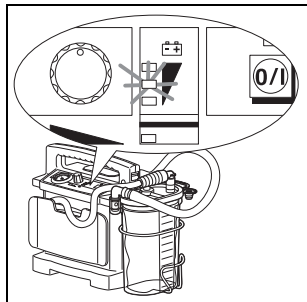
### **Power supply**

Power for operating the appliance and charging the power pack can be drawn:

- from the built-in power pack.
- from the WM 10650 connection cable using an available 12 Volt vehicle power supply.
- from the FW7405M/14 mains/charger unit, complete WM 2610.
- with the plug-in charger WM 10750.

## Important

The AC adapter/charger plug is only designed for charging the power pack with the appliance switched off. It must not be used to operate the appliance itself, as this will overload it and cause it to overheat.



The voltage indicator shows the charge status of the power pack.

The plug-in charger is only intended for charging the power pack with the appliance switched off (see "11. Technical Data" on page 51).

# 3. Safety instructions

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For your own safety and the safety of your patients and in accordance with the requirements of Directive 93/42/EEC, please note the following:

- Use the ACCUVAC Basic for the described purpose only (see "2.1 Intended use" on page 7).
- Please read these instructions for use through carefully. They are a constituent part of the device and must be available at all times.
- Before starting to work with ACCUVAC Basic, you must understand how to operate it.
- ACCUVAC Basic should be used only if you are medically qualified and have received training in aspiration techniques. Severe physical damage may be caused by incorrect use.
- Pay particular attention during aspiration to ensure that no injuries are caused to the patient's oropharyngeal cavities, e.g. to the mucous membranes. You can briefly interrupt suction, for example if the skin is aspirated, by opening the fingertip regulator.
- For bronchial aspiration, work under sterile conditions and use only sterile aspirating catheters.
- If you use disposable collection canisters, ensure that tubes are connected correctly in accordance with the manufacturer's instructions.
- When working with the re-usable collection canister, the appliance must be upright because otherwise the ball in the overflow cutout cannot reliably block the connection to the aspirator and secretion may enter the aspirator. This may damage the appliance.

- When working with the disposable collection canister, the appliance must be upright. This prevents the overflow valve filter integrated in the disposable collection bag from being wetted with fluid. If this occurs, the overflow valve filter becomes impermeable for air and you must replace the disposable collection bag. Use only clean canisters, otherwise secretion may get into the device.
- We recommend that you keep an alternative aspiration appliance on standby in case of an appliance failure.
- Follow the section entitled „6. Hygienic preparation“ auf Seite 30 to prevent an infection or bacterial contamination.
- Dispose of fluids such as blood and secretions, as well as parts contaminated with these fluids, as per the guidelines in the Federal Health Gazette entitled “Anforderungen der Hygiene an die Abfallentsorgung” [Hygiene requirements when disposing of waste] (published by the Federal Office of Health and obtainable from Carl Heymanns Verlag, Cologne).
- If third-party items are used, functional failures and restricted fitness for use may result. Biocompatibility requirements may also not be met. In such cases, please be aware that any claim under warranty and liability will be voided if neither the accessories nor the genuine replacement parts recommended in the instructions for use are used.
- Have servicing and repair work performed only by the manufacturer, WEINMANN Emergency, or by professional staff.
- The plug-in charger is only intended for charging the power pack with the appliance switched off.

You may not use it for general operation, as this would overload and overheat it.

- To increase the service life of the battery, it must not be entirely discharged. Please charge the battery at the latest when the red LED of the voltage display lights up.
- To counter the risk of a complete discharge, you must ACCUVAC Basic never store the power pack when it is discharged. Charge the battery beforehand according to (see "5.4 Charging ACCUVAC Basic" on page 26).
- Lead batteries discharge even when they are not in use. This self-discharge increases with increasing temperature and amounts to approx. 20 % at 20 °C over 3 months without use. Therefore please comply with the intervals for functional checks (see "7. Functional check" on page 37).
- Do not immerse the bacteria filter in disinfectant liquid as this adversely affects its hydrophobic properties.
- You must not sterilize the motor unit in an autoclave.
- You must not immerse the motor unit in a disinfectant solution.
- Do not use any cellphones in the immediate vicinity of ACCUVAC Basic. It is possible to operate the ACCUVAC Basic without any problems in the patient area of an ambulance, even if a cellphone is in use in the cab.

## 4. Assembly

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ACCUVAC Basic is supplied ready for use.

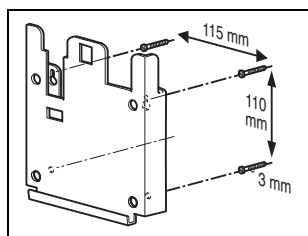
**Important** Before using ACCUVAC Basic for the first time, fully charge the power pack (see “5.4 Charging ACCUVAC Basic” on page 26).

### 4.1 Assembly with wall bracket

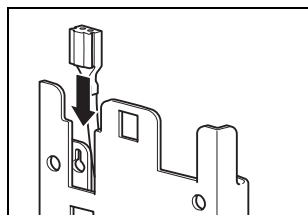
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If the WM 15208 wall bracket is not included in the scope of supply of your appliance, you may order the wall bracket as a accessory.

**Note** Please use the sheet-metal screws enclosed with the wall bracket for metallic mounting surfaces only, e.g. in vehicles. If you wish to mount the wall bracket on other mounting surfaces, please use screws that are suitable for the relevant surfaces. Such screws are not included in the scope of supply of the wall bracket.



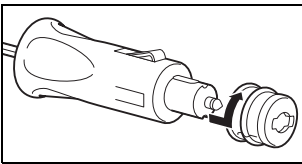
1. Find a suitable mounting location on an **even, vertical** surface. The outline of the ACCUVAC on the drilling template shows the space required.
2. Hold up the drilling template and level it with a spirit level.
3. Mark the required screw holes on the mounting location.
4. Drill the screw holes with a  $\varnothing 3$  mm drill.
5. Screw the wall bracket on with the screws supplied.
6. Push the appliance plug of the connection cable or of the mains/charger unit into the guide rail of the wall bracket until it engages with the tongue.



**Important:** the mounting substrate must be sufficiently strong to hold the wall bracket and the ACCUVAC securely in accordance with EN 1789 Medical Vehicles and their Equipment - Road Ambulances.

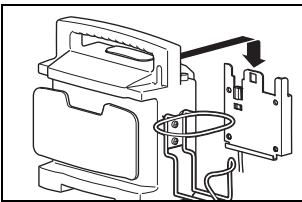
Alternatively to the wall charger you can also use the connection line WM 10650, which is optional.

7. Insert the AC adapter/charger plug in a 230 V/ 50 Hz power socket, or if using the connecting cable, insert the vehicle plug into a 12 volt DC power source.



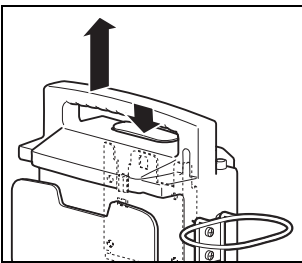
The vehicle plug is supplied complete with a red adapter ring. This is needed if you want to plug the vehicle plug into a cigarette lighter socket. To connect to the mains / charger unit FW7405M/14, complete WM 2610 or a 12 volt vehicle socket, remove the red adapter ring.

8. Slide ACCUVAC Basic downwards into the wall bracket.



If ACCUVAC Basic appliance is switched off, it will automatically be charged up from the DC power source.

9. To remove the ACCUVAC Basic from the bracket ready for use, press the release catch and lift ACCUVAC Basic out of the wall bracket.

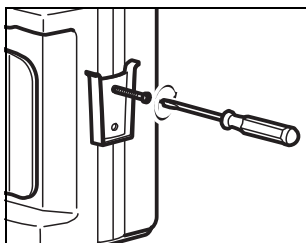
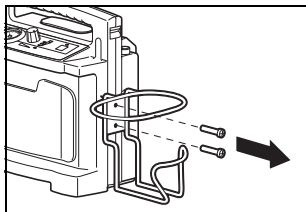


## 4.2 Fitting a re-usable collection canister

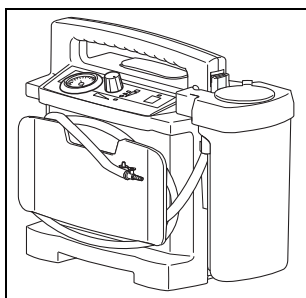
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With the conversion kit WM 15261 you can also mount a re-usable collection canister instead of a disposable collection canister.

1. Disconnect the vacuum tube from the intake connector of the motor unit.
2. Remove the disposable collection canister from its holder.
3. Unscrew the holder from the motor unit.



4. In the same place, screw on the holder for the re-usable collection canister.



5. Push the re-usable collection canister into the holder.

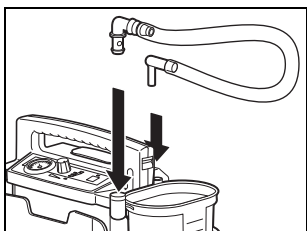
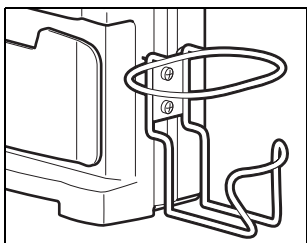
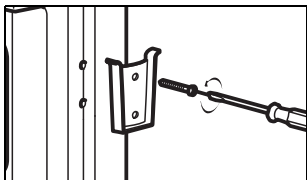


## 4.3 Fitting a disposable collection canister

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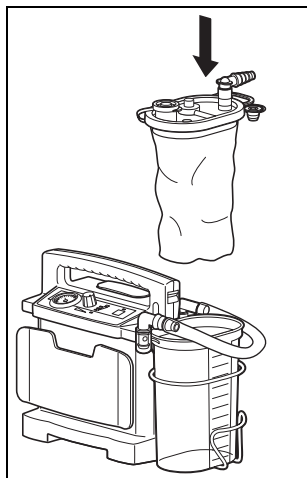
The conversion kit WM 15930 can be used to fit a disposable collection canister in place of a re-usable collection canister.

1. Remove the re-usable collection container from the motor unit.
2. Unscrew the holder from the motor unit.
3. In the same place, screw on the holder.
4. Push the collection canister into the holder.
5. Connect the collection canister to the intake connector of the motor unit via the vacuum tube.

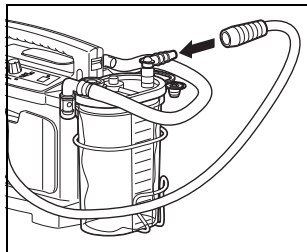


## 4.4 Inserting the disposable collection bag

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1. Insert a new disposable collection bag.



2. Push a new aspiration tube onto the elbow connector of the disposable collection bag.

3. Switch on the device.

4. Set the vacuum of -0.8 bar on the device and connect the patient connection.

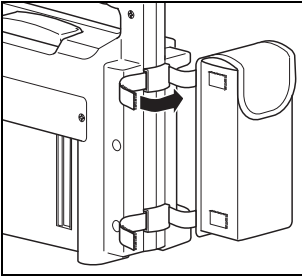
The device creates a vacuum in the collection canister and the disposable collection bag unfolds. As soon as the disposable collection bag has completely unfolded inside the collection canister, you can set the desired vacuum and start aspirating (see "5.2 Aspiration" on page 22).

## 4.5 Fitting an accessory bag

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If the accessory bag WM 10655 is not included in the scope of supply of your appliance, you may order the accessory bag as an accessory. It is used to hold aspiration catheters and other small parts. The accessory bag cannot be fitted at the same time as a

rinsing glass (see "4.6 Fitting a rinsing glass" on page 19).



1. Use the velcro-type strips to attach the accessory bag to the loops on the motor unit.

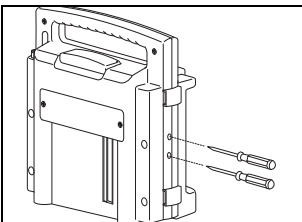
## 4.6 Fitting a rinsing glass

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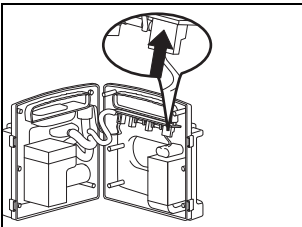
On the left side of the appliance it is possible to fit an additional collection canister in the form of a rinsing glass for holding a rinsing liquid, e.g. water.

The rinsing glass kit WM 15229 consists of:

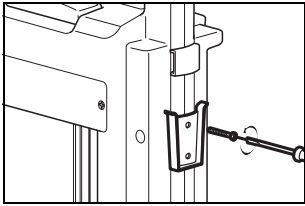
- Collection canister WM 10631
- Holder set WM 15271
- Mounting panel WM 10728



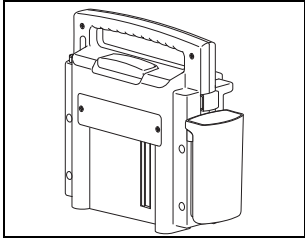
1. Use a pointed object to pierce the two closed drill holes on the left of the appliance case.
2. Open the appliance.



3. Insert the plate from the holder set into the guide.
4. Close the appliance.



5. Fix the holder to the left side of the appliance.



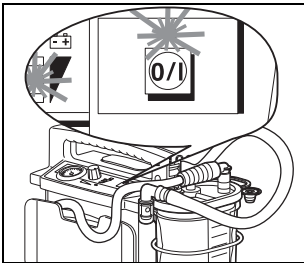
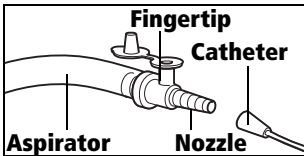
6. Push the rinsing glass into the holder.

# 5. Operation

## 5.1 Preparing for aspiration

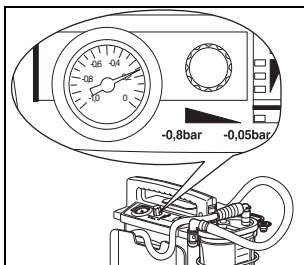
**Tip:** When using the re-usable collection canister you will find it makes cleaning considerably easier if you place approx. 50 to 100 ml disinfectant or even water in the bottom of the canister before starting aspiration. This prevents the aspirated matter from adhering so firmly to the bottom of the canister.

1. Unwind the aspiration tube from the tube holder plate.
2. If necessary, adapt the end-piece of an aspirating catheter of a suitable size for tracheal, bronchial or nasopharyngeal aspiration.

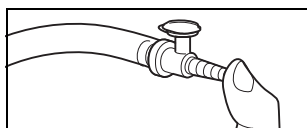


3. Press the button marked **O/I**. The lower green LED for the power indicator and the green LED for the **O/I** button lights up.

Do not switch on ACCUVAC Basic while there is still a vacuum. This would cause the pump motor to draw too much current when switching on, which could actuate fuse F101.



4. Set the desired vacuum at the vacuum control. Turn the controller to the right to increase the vacuum, or to the left to reduce it.



For this purpose, close the fingertip with the stopper and the suction opening with your thumb. Wait until the pressure gage shows a constant vacuum. Now use the vacuum control to set the desired vacuum.

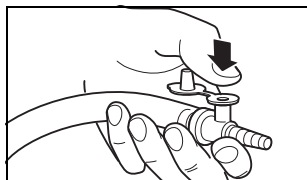
ACCUVAC Basic is now ready for operation, and you can start aspiration.

## 5.2 Aspiration

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- During the aspiration process, take care not to cause any injury to the patient's mouth and throat region, and especially to mucous membrane.
- The appliance can run for 60 minutes in continuous operation (S2 mode). Switch the appliance off after 60 minutes continuous operation to prevent overheating. Allow the appliance to cool off for at least 2 hours.
- The fingertip can be opened to interrupt suction briefly, e.g. if the nozzle is clinging to the skin.



You can leave the fingertip open all the time and keep your thumb over it. To release the suction all you have to do is lift your thumb.

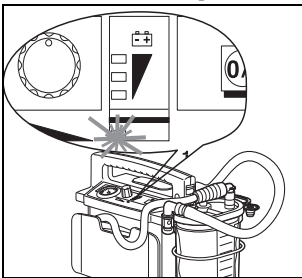
### **Important**

- When working with the re-usable collection canister, the appliance must always be upright because otherwise the ball in the overflow cutout cannot reliably block the connection to the aspirator. This could result in secretion getting into the aspirator and damaging it.
- When working with the disposable collection canister, the appliance must always be upright so that the overflow valve filter integrated in the

disposable collection bag is not wetted with secretion. If the overflow valve filter is wetted with secretion, it becomes impermeable and the disposable collection bag has to be replaced.

- Note**
- Keep an eye on the fill level of the collection canister during aspiration with the reusable collection canister. Empty the canister at a filling level of 850 ml so that the the overfill system does not become soiled and require cleaning. If the overfill system is actuated during aspiration before the filling limit is reached, you must briefly interrupt the aspiration process and vent the system (see “Venting the re-usable collection canister” on page 23).
  - Keep an eye on how full the disposable collection bag is with secretion during aspiration with the disposable collection canister. Replace it in good time.

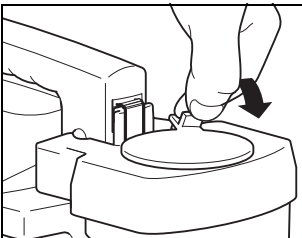
### Important



Be sure to check the power pack charge level at regular intervals during aspiration. If the red LED on the voltage indicator lights up, aspiration should be continued with a second appliance. Using the appliance beyond this point can damage the power pack by discharging it completely, with the result that its full capacity will no longer be available.

### Venting the re-usable collection canister

1. Lift the vent tab on the filter cover until the ball of the overfill system falls back again.
2. Insert the tab again. You can now continue with aspiration.

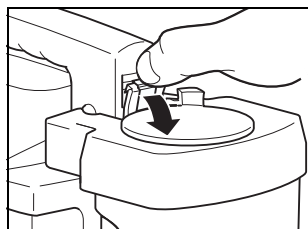


## Emptying the re-usable collection canister

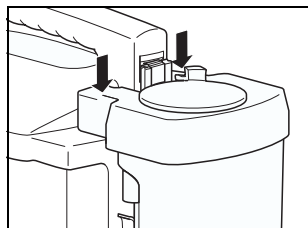
If the re-usable collection canister is full to the limit, you must interrupt aspiration and empty the collection canister.

### Important

When removing the collection canister, take care that the secretion cover is not opened accidentally, allowing the contents to spill over.



### Important



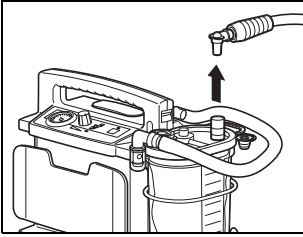
1. Unwind the aspiration tube from the tube holder plate to make it easier to remove the canister and reduce the risk of the secretion cover coming open by accident.
2. Remove the re-usable collection canister from the motor unit by pulling the locking tab out and lifting the canister out of its holder.
3. Carefully remove the secretion cover.
4. Empty the collection canister.

Be sure to observe the relevant rules for disposal (see "3. Safety instructions" on page 11).

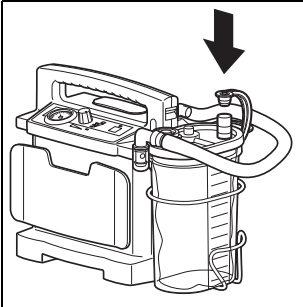
5. Replace the secretion cover on the collection canister.
6. Replace the collection canister in its holder on the motor unit. Please make sure that the secretion cover is forced down onto the motor unit and the locking tab slots into place with the bracing clip.
7. If necessary, reattach the aspiration tube. You can now continue with aspiration.



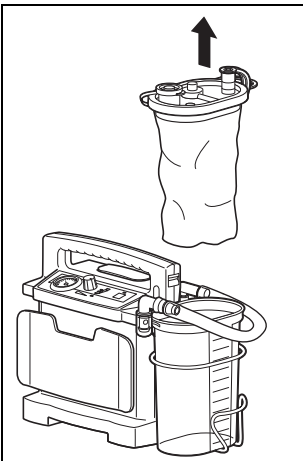
## Replacing the disposable collection bag



1. Take the aspiration tube with fingertip and the elbow connector off the disposable collection bag.
2. Dispose of the aspiration tube and elbow connector.



3. Connect the disposable collection bag with the green cap which is attached to the cover. This closes the disposable collection bag and reduces the risk of fluid escaping.



4. Remove the disposable collection bag and dispose of it.

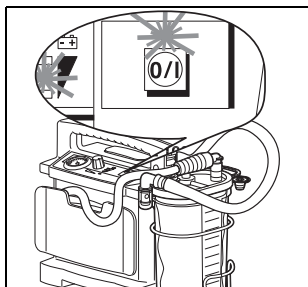
### Important

Be sure to observe the relevant rules for disposal (see "3. Safety instructions" on page 11).

5. Insert a new disposable collection bag (see "4.4 Inserting the disposable collection bag" on page 18).

## 5.3 After aspiration

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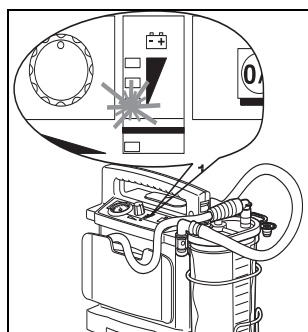


After aspiration:

1. Switch off ACCUVAC Basic by pressing the button marked **0/I**.
2. Empty the collection canister (see “Emptying the re-usable collection canister” on page 24) or dispose of the disposable collection bag (see “Replacing the disposable collection bag” on page 25).
3. Clean ACCUVAC Basic (see “6. Hygienic preparation” on page 30).

## 5.4 Charging ACCUVAC Basic

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We recommend you to charge ACCUVAC Basic as soon as the yellow voltage indicator LED lights up. By doing so you will ensure that it operates for an adequate period next time it is used.

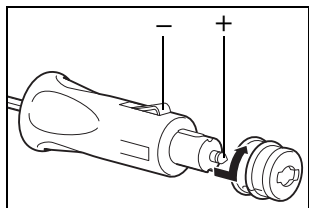
The power supply for charging must deliver 12.0 V – 13.8 V DC and at least 0.3 ampere. A full charge takes a maximum of 14 hours.

**Note:** Even when ACCUVAC Basic is fully charged, only the central LED is lit when you switch on the appliance.

The following sources can be used for charging:

- The plug-in charger;

- The 12 Volt vehicle power supply using the WM 10650 connection cable;
- The FW7405M/14 mains/charger unit, complete WM 2610.

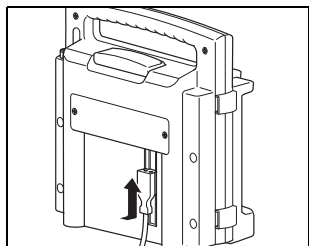


A red adapter ring is fitted to the vehicle connector. This is needed if you want to insert the vehicle connector in a cigarette lighter socket. To connect to the mains / charger unit FW7405M/14, complete WM 2610 or a 12-volt vehicle socket, you must remove the red adapter ring.

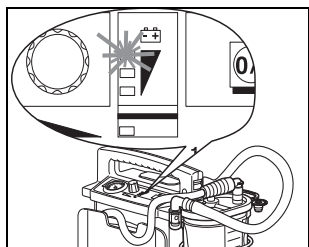
**Caution:** Check the vehicle plug for correct polarity. Reversed polarity can damage ACCUVAC Basic.

### Charging without wall bracket

1. Switch off ACCUVAC Basic.
2. Place the plug at the appliance end of the connecting cable in the guide slot at the rear of the appliance and push it up behind the cover plate.



3. Switch on the power supply.
4. Charging starts as soon as you have switched on the power supply. When the top LED lights up, the power pack is approx. 75 % charged. Please charge the battery for another two 2 hours at least.
5. Disconnect the connecting cable once the device has charged.



## Charging using the WM 10750 charger plug

The WM 10750 charger plug has an LED on the front panel that shows the current status of the device:

- Orange: charging
- Green: refresher charging

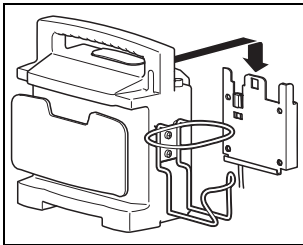
Because of the way the WM 10750 charges, the charge LEDs on the ACCUVAC Basic show the status “full” very quickly, even though the battery will not be fully charged yet. You are therefore advised to refer to the charge LEDs on the charger plug.

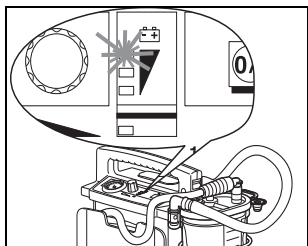
The enclosed primary adapters can be used if you are using the WM 10750 charger plug with different mains connections in other countries.

To change the primary adapter, gently push the adapter fitted to the charger plug away from the charger in the direction indicated by the arrow. Insert the required adapter into the free mounting and push firmly into place.

## Charging with wall bracket

1. Switch off ACCUVAC Basic.
2. Insert ACCUVAC Basic in the wall bracket.





3. Charging starts as soon as you switch on the current. When the top LED lights up, the power pack is approx. 75 % charged. Please charge the battery for another two 2 hours at least.

### **Refresher charging**

Regular refresher charging extends the service life of the power pack. Leave ACCUVAC Basic connected to the external power supply even after the power pack is fully charged. This cannot overcharge the power pack provided the charging voltage is kept within the range 12.0 – 13.8 V.

## 6. Hygienic preparation

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**This product contains disposable items. Disposable items are intended to be used only once.**

So use these items only once and do **not** reprocess them. Reprocessing disposable items may impair the functionality and safety of the product and lead to unforeseeable reactions as a result of ageing, embrittlement, wear, thermal load, the effects of chemical processes, etc.

Hygienic preparation of ACCUVAC Basic and the accessories used must be carried out daily during use and before every change of patient. Observe the instructions for the disinfectant used. We recommend gigasept® FF (new) for immersion disinfection and terralin® protect for wipe disinfection.



Never immerse the ACCUVAC Basic motor unit in disinfectant or other liquids. Always disinfect simply by wiping with disinfectant. Otherwise you may damage the device and thereby endanger users and patients (see “6.2 Cleaning, disinfecting and sterilizing” on page 33).

Be sure to carry out a functional check after every hygienic preparation (see “7.2 Performing the leak check” on page 38).

For further information on hygienic preparation and a list of all cleaning agents and disinfectants which can be used, please see our Internet brochure at [www.weinmann-emergency.de](http://www.weinmann-emergency.de).

# 6.1 Preparations

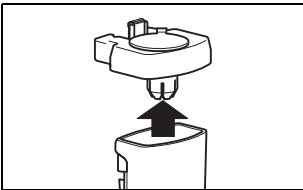
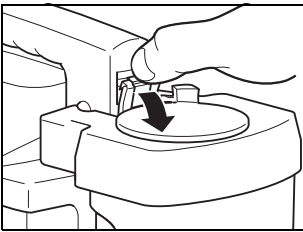
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## Re-usable collection canister

### Important

When removing and emptying the re-usable collection canister, take care that the secretion cover does not accidentally come off the collection canister and allow the contents to spill over.

1. Unwind the aspiration tube from the tube holder plate to make it easier to remove the canister and to reduce the risk of the secretion cover coming open by accident.
2. Remove the canister from the motor unit by pulling out the locking tab and lifting the canister out of its holder.

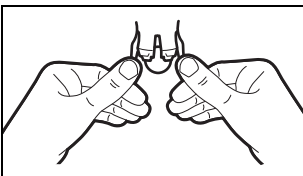


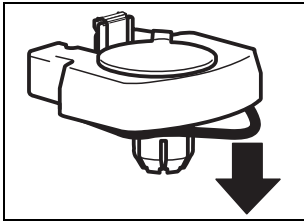
3. Remove the secretion cover.
4. Empty the collection canister.

### Important

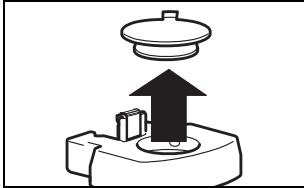
Be sure to observe the relevant rules for disposal (see "3. Safety instructions" on page 11).

5. Remove the ball from the overfill system. Pull the tabs apart slightly to allow the ball to fall out.

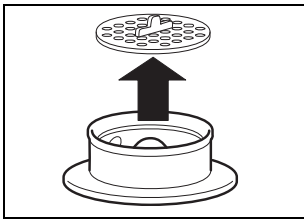




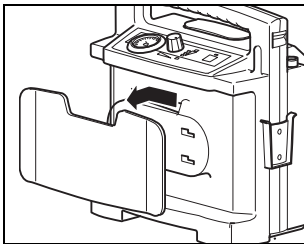
6. Remove sealing ring from groove in secretion cover.



7. Remove the filter cover.



8. Remove the filter.

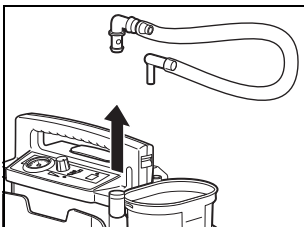


9. Remove the tube holder plate by sliding it to the left to disengage it and then pulling it towards you.

### **Disposable collection canister**

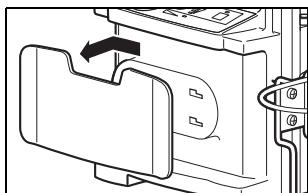
1. Remove the disposable collection bag (see "Replacing the disposable collection bag" on page 25).

2. Remove the vacuum tube.





3. Lift the disposable canister from its holder.
4. Remove the tube holder plate by pushing it to the left until it disengages and then pulling it towards you.



## 6.2 Cleaning, disinfecting and sterilizing

Hygienic preparation of the ACCUVAC Basic and the accessories used should be performed as described in the following table.

Observe the instructions regarding use of disinfectant. For immersion disinfection we recommend gigasept® FF (new) and terralin® protect for wipe disinfection.

You are recommended to wear suitable gloves (e.g. household or disposable gloves) during disinfection procedures.

Part		Cleaning	Disinfecting	Rinse in washing machine	Sterilization
Disposable collection canister	Collection canister	In warm water with a mild detergent	Immerse in dilute solution <sup>(3)</sup>	Rinse at up to 95 °C	Steam sterilization up to 121 °C <sup>(4)</sup>
	Vacuum tube			Not permitted	
	Aspiration tube with fingertip	Disposable item, re-use not permitted. Use new part for every patient			

Part		Cleaning	Disinfecting	Rinse in washing machine	Sterilization
Re-usable collection canister	Collection canister	In warm water with a mild detergent	Immerse in dilute solution <sup>(3)</sup>	Rinse at up to 95 °C	Steam sterilization up to 134 °C <sup>(5)</sup>
	Secretion cover				
	Overfill ball				
	Filter cover				
	Aspiration tube				
	Filter <sup>(1)</sup>	In clear warm water <sup>(2)</sup>	Not permitted <sup>(2)</sup>		Steam sterilization up to 134 °C <sup>(5)</sup>
Nozzle with fingertip		Disposable item, re-use not permitted. Use new part for every patient.			
Motor unit		Wipe with damp cloth	Disinfectant wipe	Not permitted	
Tube holder plate		In warm water with a mild detergent	Immerse in dilute solution <sup>(3)</sup>	Rinse at up to 40 °C	Not permitted
Accessory bag				30 °C cycle in a washing machine (no spin), using a suitable disinfecting additive	

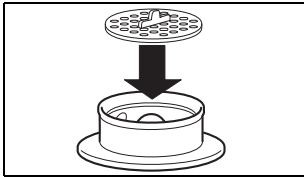
- (1) Always dry the filter before using it again. A damp filter reduces the pump's suction capacity.
- (2) Do not use any surfactants or alcohol for cleaning, as they can adversely affect the hydrophobic properties of the filter.
- (3) After disinfection, rinse the parts thoroughly with distilled water and let them dry.
- (4) Steam sterilization at 134 °C with devices to EN 285, dwell time 5 minutes.
- (5) Steam sterilization at 121 °C with devices to EN 285, dwell time 20 minutes.

## 6.3 Reassembling the disposable collection canister

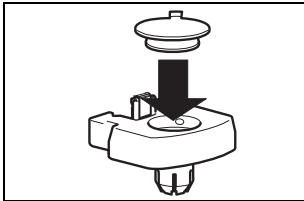
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### Re-usable collection canister

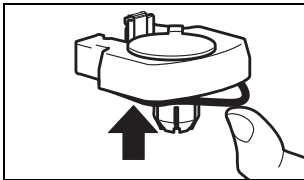
After cleaning, disinfection or sterilization, reassemble the parts as follows:



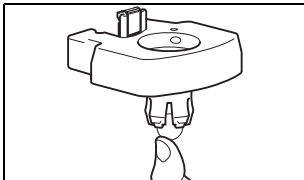
1. Insert filter in filter cover. Make sure that the filter is correctly seated in the groove in the filter cover.



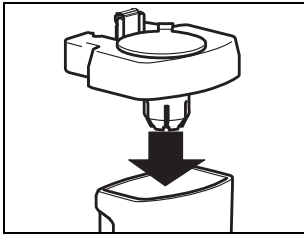
2. Fully insert filter cover into secretion cover.



3. Press sealing ring into groove in secretion cover.



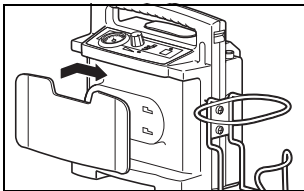
4. Press the ball of the overflow system fully into its housing in the secretion cover.
5. Check the proper fit of bracing clip.



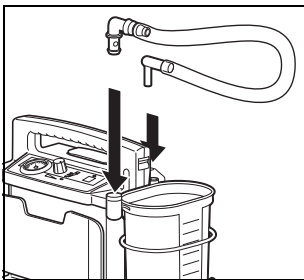
6. Place the secretion cover on the collection canister.
7. Fit the aspiration tube.
8. Attach collection canister to appliance case.
9. Refit the tube holder plate by sliding it to the right.

### **Disposable collection canister**

After cleaning, disinfection or sterilization, reassemble the parts as follows:



1. Refit tube holder plate by sliding it to the right.
2. Put the disposable collection canister in the holder.



3. Connect the collection canister to the intake connector of the motor unit via the vacuum tube.
4. Insert a new disposable collection bag (see "4.4 Inserting the disposable collection bag" on page 18).

# 7. Functional check

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If the functional check reveals defects or deviations from the specified values, ACCUVAC Basic must not be used again until the faults have been rectified (see “8. Troubleshooting” on page 40).

We therefore recommend that you always keep a stock of the following:

- Disposable collection bag WM 10732
- Aspiration tube with fingertip WM 10733

## 7.1 Intervals

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To ensure that a properly functioning ACCUVAC Basic is always available, it is essential to observe the following intervals.

### **Before every use**

- Perform a functional check (see “7.2 Performing the leak check” on page 38).

### **After every use**

- Clean, disinfect and/or sterilize the unit and its parts (see “6. Hygienic preparation” on page 30);
- Clean, disinfect and/or sterilize the vacuum tube and the disposable collection canister as required;
- Perform a functional check (see “7.2 Performing the leak check” on page 38).

### Every 3 months

- Check the charge level of the power pack by switching on ACCUVAC Basic and reading the voltage indicator. If the top LED of the voltage indicator does not light up, the power pack should be recharged (see “5.4 Charging ACCUVAC Basic” on page 26).

### At least every 6 months

- Perform a functional check (see “7.2 Performing the leak check” on page 38).
- Make a visual inspection of the muffler for clogging. If it is clogged, fit a new muffler (see “8.3 Changing the muffler” on page 46).

### After all repairs

- Clean, disinfect and/or sterilize the unit and its parts (see “6. Hygienic preparation” on page 30);
- Perform a functional check (see “7.2 Performing the leak check” on page 38).

## 7.2 Performing the leak check

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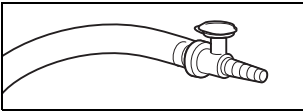
**Condition:** the tubes on the disposable collection canister system are connected correctly (in the case of the disposable collection canister).

1. Check the following:
  - tubes, collection canister, secretion cover and filter cover (reusable collection canisters)
  - tube and individual parts (disposable collection canisters).
2. Check that the following connections are tight and correct:
  - tube connections, secretion cover and rein-

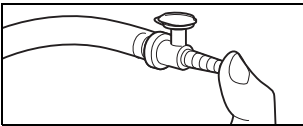
forcement clip on the latch (reusable collection canisters)

- tube connections and disposable collection bag (disposable collection canisters).

3. Switch on ACCUVAC Basic.
4. Check the charge level on the voltage indicator. Always recharge the power pack without delay if the yellow LED on the voltage indicator lights up (see "5.4 Charging ACCUVAC Basic" on page 26).



5. Insert the stopper in the fingertip.



6. Use your thumb to hold the suction nozzle closed.

7. Switch on the aspirator and select the maximum vacuum of  $-0.8$  bar by turning vacuum control fully to the right. ACCUVAC Basic must reach this vacuum in not more than 20 seconds.

If the aspirator takes more than 20 seconds to reach this vacuum, its suction capacity is reduced. Check for possible faults (see "8. Troubleshooting" on page 40).

8. Switch ACCUVAC Basic off again.

## 8. Troubleshooting

Fault	Cause	Remedy
Appliance does not start, O/I indicator and voltage indicator show ready for operation	Faulty pump	Have repairs carried out by factory or by expert personnel.
Appliance does not start, O/I indicator does not show ready for operation	Fuse F100 or F101 in appliance defective	Fit new fuse (8.2, page 44)
	Fuse in vehicle plug defective	Fit new fuse (8.2, page 44)
	Power pack fully discharged	Perform several charge/discharge cycles. If unsuccessful, fit new power pack (8.1, page 41)
	Incorrect polarity of vehicle power socket	Correct polarity and if necessary replace fuse F100 (8.2, page 44)
	Snap-in connection between circuit board and power pack not properly engaged	Make sure connection snaps in
Appliance does not switch on or off	Electronic fault	Have it repaired
Appliance does not reach maximum vacuum of $-0.8$ bar in 20 seconds, but voltage indicator shows ready for operation	Leak in suction side of appliance	Reusable collection canister: Check that all tubes are securely connected and that filter cover and secretion cover are firmly installed. Disposable collection canister: check that the tube connections and the disposable collection bag are firmly located.
	Power pack not sufficiently charged	Charge power pack (5.4, page 26)
	Fault in pump	Have repairs carried out at factory or by expert personnel.



<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Not charging	AC adapter/charger plug defective	Have repairs carried out at factory or by expert personnel
	Inadequate external power supply	External power supply must be between 12.0 and 13.8 volt.
	Fuse F100 or F101 defective	Fit new fuse (8.2, page 44)
	Fuse in vehicle plug defective	Fit new fuse (8.2, page 44)
	Snap-in connection between circuit board and power pack not properly engaged	Make sure connection snaps in
Power pack is not fully charged up despite charging for 14 hours (top LED in voltage indicator does not light up)	Charger does not meet specifications	Use AC adapter/charger plug WM 10750 or mains / charger unit FW7405M/14, complete WM 2610
	Vehicle electrical system is not supplying 12.0 – 13.8 V	Check vehicle electrical system
	Power pack damaged by being fully discharged	Fit new power pack (8.1, page 41)
	Power pack at end of service life	
Top LED of voltage indicator lights up after charging, but pump does not run when powered by power pack	Internal connection faulty	Check internal connection between printed circuit board (X100) and power pack
	Fuse F101 defective	Fit new fuse (8.2, page 44)
Fuse F101 frequently blows	Pump is often switched on under vacuum conditions	Do not switch on pump under vacuum
	Pump defective	Have repair carried out at factory or by expert personnel

## 8.1 Power pack

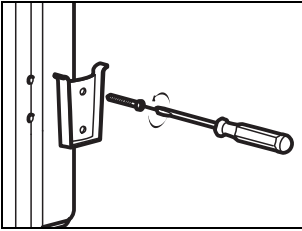
ACCUVAC Basic is fitted with a high-grade lead cell power pack.

### Changing power pack

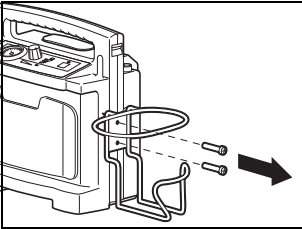
**Important** Never touch the circuit board, as this can damage the electronic system.

1. Switch off ACCUVAC Basic.

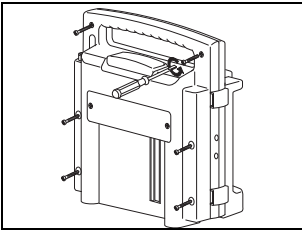
2. Disconnect the aspirator from the external power supply.
3. Remove collection canister and any accessories.
4. If a reusable collection canister is used: unscrew the bracket.



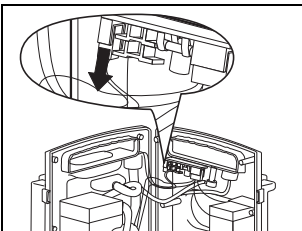
5. If a disposable collection canister is used: unscrew the holder.

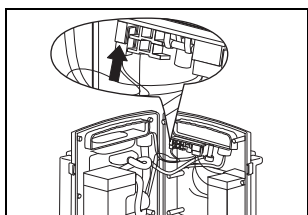
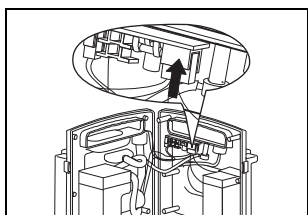
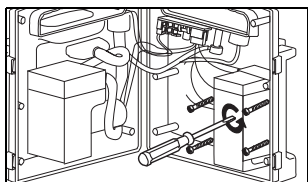
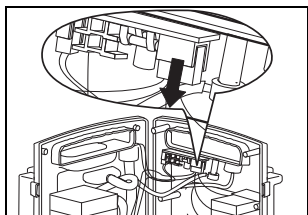


6. Open the case by unscrewing the 6 cross-head screws. When opening the case, be careful not to damage the silicone sealing cord.



7. Carefully disconnect the **X101** plug connector from the main circuit board.





8. Carefully disconnect the **X100** electrical power pack plug connector from the main circuit board.

9. Unscrew the power pack holder (4 cross-head screws).

10. Detach both leads from the power pack.

11. Remove and dispose of the defective power pack (see "9.2 Disposal" on page 47).

12. Attach the two cables to the connections on the new power pack: red to plus; black to minus.

If you accidentally reverse the connections, the electronic system will be protected by fuse (F2), which will then have to be replaced.

13. Fit the new power pack with its holder, making sure you do not jam any cables.

14. Carefully connect the **X100** electrical power pack plug connector.

15. Carefully connect the **X101** electrical plug connector.

16. Screw the case together again, making sure that the silicone sealing cord is correctly inserted and is not jammed or otherwise damaged.

17. Perform a functional check (see "7.2 Performing the leak check" on page 38).

## 8.2 Changing fuses

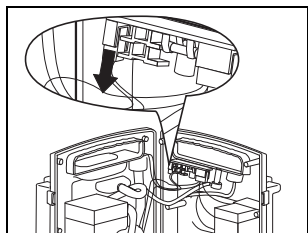
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### Changing fuse F100 or F101

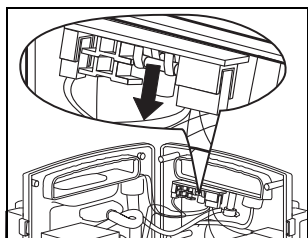
#### Important

Never touch the circuit board, as this can damage the electronic system.

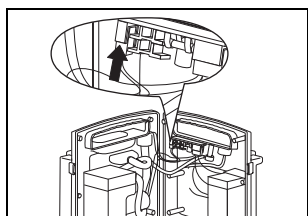
1. Unscrew the case of ACCUVAC Basic (see "Changing power pack" on page 41).
2. Carefully disconnect the **X101** plug connector from the main circuit board.



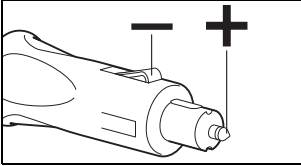
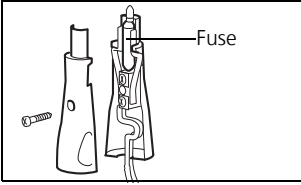
3. Remove the defective fuse. The fuses are labeled on the main circuit board.



4. Insert a new fuse. Always use approved fuses (see "11. Technical Data" on page 51).
5. Carefully connect the **X101** electrical plug connector.
6. Screw the case together again, making sure that the silicone sealing cord is correctly inserted and is not jammed or otherwise damaged.
7. Perform a functional check (see "7.2 Performing the leak check" on page 38).



## Changing fuse in vehicle plug



1. Use a screwdriver to open the vehicle plug.

Note:

The central contact of the plug is the plus pole. The plus lead of the cable has either a square cross-section or colored markings.

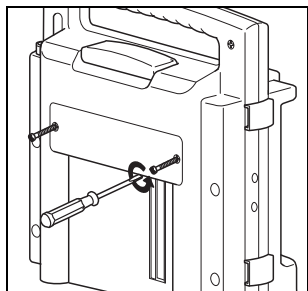
The outer contact of the plug is the minus pole. The minus lead of the cable is round and black.

**Caution:** Check the vehicle plug for correct polarity. Reversed polarity can damage ACCUVAC Basic.

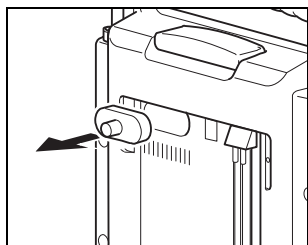
2. Change the faulty fuse. Use only approved fuses (see "11. Technical Data" on page 51).
3. Screw the vehicle plug together again.
4. Perform a functional check (see "7.2 Performing the leak check" on page 38).

## 8.3 Changing the muffler

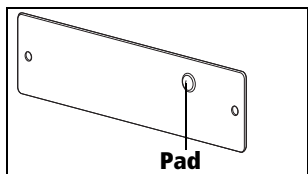
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1. Use a screwdriver to unscrew the cover plate (2 cross-head screws).



2. Remove the old muffler.



3. Insert a new muffler.
4. Refit the cover plate. Make sure that the pad stuck to the cover plate is pressing against the muffler.
5. Perform a functional check (see "7.2 Performing the leak check" on page 38).

# 9. Maintenance

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## 9.1 Intervals

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The ACCUVAC Basic requires no maintenance, but please observe the intervals specified for regular functional checks (see “7.1 Intervals” on page 37).

We recommend that you have any servicing, such as inspections and repair work, carried out by the manufacturer – WEINMANN Emergency – or by expert personnel.

## 9.2 Disposal

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To dispose of the unit properly, please contact a licensed and certified electronic waste disposal merchant. Names and addresses can be obtained from your Environmental Officer or municipal authorities. The unit packaging (cardboard box and inserts) can be disposed of as waste paper.

### **Disposing of batteries/rechargeable batteries**



Used batteries/rechargeable batteries may not be disposed of in domestic waste. Contact WEINMANN Emergency or your local authority waste disposal department.

# 10. Scope of supply

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## 10.1 Standard scope of supply

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### **ACCUVAC Basic with re-usable collection canister**

1. ACCUVAC Basic  
with re-usable collection canister WM 10709  
consisting of:
  - ACCUVAC Basic, basic device
  - Re-usable collection canister, complete WM 10630
  - Filter, complete WM 10675
  - Plug-in charger, complete WM 10750
2. ACCUVAC Basic with re-usable  
collection canister and accessories WM 10715  
consisting of:
  - ACCUVAC Basic, basic device
  - Re-usable collection canister, complete WM 10630
  - Filter, complete WM 10675
  - Connection cable WM 10650
  - Accessories bag WM 10655
  - Set, wall bracket  
incl. assembly set WM 15208
3. ACCUVAC Basic  
with re-usable collection canister WM 10727  
consisting of:
  - ACCUVAC Basic, basic device
  - Re-usable collection canister, complete WM 10630
  - Filter, complete WM 10675
  - Connection cable WM 10650



- Mains/charger unit, complete WM 2610

### **ACCUVAC Basic with disposable collection canister**

1. ACCUVAC Basic with disposable collection canister Serres<sup>®</sup>, complete WM 10722  
consisting of:
  - ACCUVAC Basic, basic device
  - Disposable collection canister Serres<sup>®</sup>, complete WM 10790
  - Canister holder for Disposable collection canister Serres<sup>®</sup> WM 15931
  - Disposable aspiration tube WM 10778
  - Disposable collection bag Serres<sup>®</sup>
  - Vacuum tube Serres<sup>®</sup> WM 10795
  - Plug-in charger, complete WM 10750
2. ACCUVAC Basic with disposable collection canister Serres<sup>®</sup> and accessories, complete WM 10749  
consisting of:
  - ACCUVAC Basic, basic device
  - Disposable collection canister Serres<sup>®</sup>, complete WM 10790
  - Canister holder for Disposable collection canister Serres<sup>®</sup> WM 15931
  - Disposable aspiration tube WM 10778
  - Disposable collection bag Serres<sup>®</sup>
  - Vacuum tube Serres<sup>®</sup> WM 10795
  - Connection cable WM 10650
  - Accessories bag WM 10655
  - Set, wall bracket incl. assembly set WM 15208

3. ACCUVAC Basic with disposable collection canister Serres® and accessories, complete WM 10789
- consisting of:
- ACCUVAC Basic, basic device
  - Disposable collection canister Serres®, complete WM 10790
  - Canister holder for Disposable collection canister Serres® WM 15931
  - Disposable aspiration tube WM 10778
  - Disposable collection bag Serres®
  - Vacuum tube Serres® WM 10795
  - Connection cable WM 10650
  - Mains/charger unit, complete WM 2610

## 10.2 Accessories

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You can order accessories separately if required. A current list of accessories can be ordered on the Internet at [www.weinmann-emergency.de](http://www.weinmann-emergency.de) or through your specialist dealer.

## 10.3 Replacement parts

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You can order replacement parts separately if necessary. A current list of replacement parts can be ordered on the Internet at [www.weinmann-emergency.de](http://www.weinmann-emergency.de) or through your specialist dealer.

# 11. Technical Data

	<b>ACCUVAC Basic</b>
Appliance class 93/42/EEC	II b
Dimensions WxHxD in mm	380 x 280 x 140 (with disposable collection canister) 370 x 280 x 140 (with re-usable collection canister)
Weight	approx. 5.4 kg
Canister volume	1000 ml
Suction capacity at 12 V with free flow	> 20 l/min
Max. vacuum at 12 V	0.8 bar (80 kPa)
Aspiration tube	Ø 7 mm, length 1800 mm (disposable collection canister) Ø 10 mm, length 1300 mm (re-usable collection canister)
Filter (reusable)	Hydrophobic filter nonwoven with 99.999 % retention of bacteria at 0.027 µm
Overflow valve filter (disposable)	Retention of min. 99.8 % related to particles of 2.8 µm
Motor output	50 W
Rated voltage	12 V
Maximum current consumption	3.5 A
Temperature range	
– Operation	–18 °C to +40 °C
– Charging	+0 °C to +40 °C
– Storage	–40 °C to +70 °C
Humidity	30 % – 75 % rel. humidity

	<b>ACCUVAC Basic</b>
Electromagnetic compatibility:	
– Radio interference suppression	EN 60601-1-2 EN 55011
– Radio interference resistance	IEC 1000-4 Parts 2–5 & 11
Classification according to EN 60601-1:	
– Protection against electric shock: class II	
– Degree of protection against electric shock: BF	
– Degree of protection against water: IPX1 (drip-water)	
Classification according to EN ISO 10079-1:	
– high vacuum/high flow	
Standards applied	EN 60601-1 EN 60601-1-2 EN ISO 10079-1 EN 1789
Vehicle plug fuse	8 A, DIN 72581, identification color white
Internal fuse F100 external power supply	4 A slow-acting, low breaking capacity G fuse links 5x20 mm, conforms to IEC 127
Internal fuse F101 power pack	4 A slow-acting, low breaking capacity G fuse links 5x20 mm, conforms to IEC 127
Power pack type	Lead cell, 3.4 Ah
Charging voltage	12.0 to 13.8 V==
Operating time after charging for 14 hours	30 min at maximum suction
Operating mode	S2 60 min
Service life of power pack	400 charge/discharge cycles in approx. 3 years
Battery charging time	14 h

<b>ACCUVAC Basic</b>	
Average sound pressure level at -0.8 bar	≤ 63,5 dB(A)
AC adapter/charger	primary: 230 V/50 Hz secondary: 13.8 V $\overline{=}$ / 0.3 A
<b>Materials</b>	
Re-usable collection canister:	
– Collection canister	APEC
– Secretion cover	Silicone
– Bracing clip	Stainless steel
– Ball	PVDF
– Filter cover	Silicone
– Filter holder	APEC
– Tubes	Silicone
– Nozzle with fingertip	PE

<b>ACCUVAC Basic</b>	
Disposable collection canister:	
– Collection canister	PC and thermoplastic elastomer
– Secretion cover	PP
– Disposable collection bag	Medical-grade PVC
– Tubes	Medical-grade PVC
– Nozzle with fingertip	PE
Holder	Constructional steel, non-alloy, St 50-2
Case	PC/ABS
Tube holder plate	ABS

**CE 0197**

Subject to technical change without notice.

# 11.1 Safe distances

The ACCUVAC Basic is intended for operation in an electromagnetic environment in which high-frequency interference variables are controlled. The customer or user of the ACCUVAC Basic can help avoid electromagnetic interference by maintaining the minimum safe distance between portable and mobile high-frequency telecommunication devices (transmitters) and the ACCUVAC Basic depending on the rated output of the transmitter as given below.

<b>Recommended safe distances between portable or mobile HF telecommunication devices (e.g. mobile phones) and the ACCUVAC Basic</b>			
<b>Rated output of HF device</b>	<b>Safe distance depending on transmission frequency</b>		
	<b>in m</b>		
<b>in W</b>	<b>150 kHz - 80 MHz <math>d=(3,5/\sqrt{P}) \times \sqrt{P}</math></b>	<b>80 MHz - 800 MHz <math>d=(3,5/\sqrt{P}) \times \sqrt{P}</math></b>	<b>800 MHz - 2,5 GHz <math>d=(3,5/\sqrt{P}) \times \sqrt{P}</math></b>
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33

## 12. Warranty

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Starting from the date of purchase, WEINMANN Emergency offers the customer a limited manufacturer's warranty on a new original WEINMANN Emergency product or replacement parts installed by WEINMANN Emergency in accordance with applicable warranty terms and conditions for the particular product and the warranty periods listed below. The warranty terms and conditions are available on the Internet at [www.weinmann-emergency.de](http://www.weinmann-emergency.de). On request, we will send you the warranty terms and conditions by mail.

If you wish to make a warranty claim, consult your authorized dealer.

<b>Product</b>	<b>Warranty periods</b>
WEINMANN Emergency devices, incl. accessories (excluding: masks), for oxygen therapy, and emergency medicine	2 years
Masks, incl. accessories, batteries (unless otherwise stated in the technical documentation), sensors, hose systems	6 months
Disposable products	None

## 13. Declaration of conformity

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WEINMANN Emergency Medical Technology GmbH + Co. KG declares herewith that the product complies fully with the respective regulations of the Medical Device Directive 93/42/EEC. The unabridged text of the Declaration of Conformity can be found on our website at [www.weinmann-emergency.de](http://www.weinmann-emergency.de)



**WEINMANN Emergency**

**Medical Technology GmbH + Co. KG**

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partner for life

**WEINMANN**  
medical technology