

RESMED

Elisée™ 150 Patient Manual

English



ResMed Ventilation solutions
Making quality of care easy

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1 Introduction

This manual is provided with your Elisée™ 150 ventilator (with software version 2.54 NIV+ or higher). It is not a substitute for the clinical manual.

1.1 Definitions

This manual contains special terms and icons that appear in the margins to draw your attention to specific and important information.



WARNING

Alerts you to possible injury.



CAUTION

Explains special measures for the safe and effective use of the ventilator.

Note: Is an informative or helpful note.

1.2 User/owner responsibility

The owner or user of this system shall have sole responsibility and liability for any injury to persons or damage to property resulting from:

- The device being set up, operated or cleaned in a manner which does not comply with the instructions provided
- The device being set up, maintained or altered by unauthorised persons and/or in a manner which does not comply with the instructions.

Please read this manual carefully before use.

2 Medical Information

2.1 Purpose of the Elisée 150

The Elisée 150 is a ventilator designed to be used by both adults and children, in the home or clinical environment. The ventilator is used with either a single or a double patient circuit.

2.2 Warnings

- This manual is provided with the ventilator you have received. It does not in any way replace the clinical manual supplied to your physician or clinical care provider.
- The advice contained in this manual does not replace the instructions given by your physician (or clinical care provider), who will already be familiar with the operation of the device through the clinical manual provided.
- The ventilator settings must be made by competent and trained staff under a doctor's supervision.
- The ventilator must be used with the accessories recommended by the manufacturer or your prescribing physician. The use of inappropriate accessories is likely to affect the operation of the ventilator.
- If you have any questions about setting up, operating or maintaining your ventilator or its accessories, contact your HME provider.
- The ventilator must be transported in its travel bag.
- In the case of externally visible faults, cease using the ventilator.
- In the event of functional problems (e.g. you find it difficult to breathe or trigger an inspiratory phase), do not hesitate to contact your clinical care provider.
- To avoid the risk of electrocution, do not open the device casing. Repairs and internal servicing should only be performed by an authorised service agent.
- If there is interference on the electrical network, operate the ventilator on battery power.
- Your HME provider must ascertain the electromagnetic characteristics of the environment in which this ventilator will be used. In particular, your HME provider must ensure that:
 - When the ventilator is operated in proximity to other electrical devices, including cell phones, there is no interference, and the ventilator performs correctly
 - The ventilator is never placed on or under other devices
 - There is an adequate distance between the ventilator and other electrical devices in your home.
- In accordance with Directive 2002/96/EC concerning waste electrical and electronic equipment, this ventilator must be sorted and disposed of separately from other types of rubbish. It must not be disposed of with ordinary municipal waste. Contact your HME provider for more information.

The above are general warnings. Other specific warnings and notes will be found throughout the manual.

3 Description of the Elisée 150

3.1 Components of the Elisée 150

The picture below shows the set of components available from your clinical care provider:

- Travel bag (1)
- Elisée 150 ventilator (2)
- Standard power cord (3)
- Patient circuit (double circuit shown here) (4).

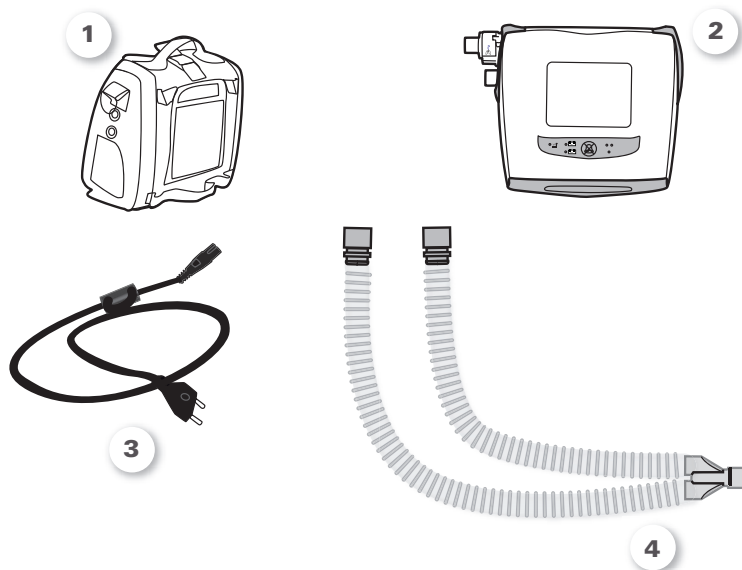


Figure 1: Elisée 150 components.

3.2 Front of the Elisée 150

The front has:

- a touch screen (1);
- an LED panel and an Alarm Silence button (2);
- a retractable handle (3).

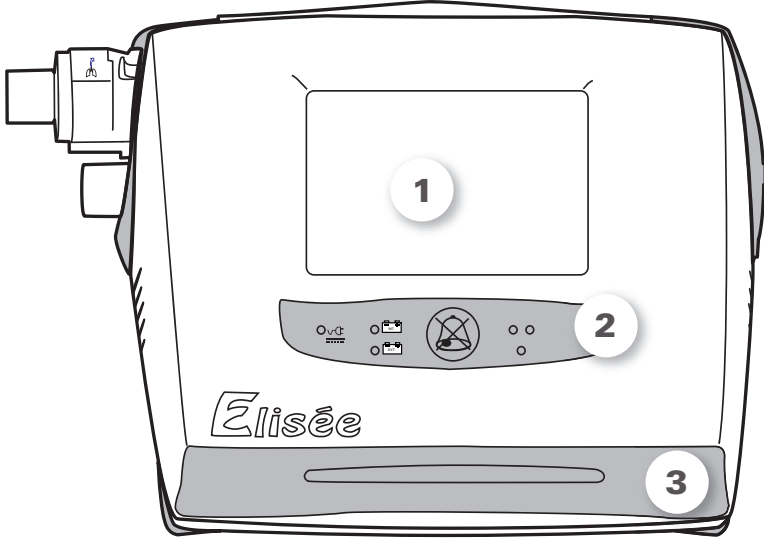


Figure 2: Front view.

3.3 Touch screen

You can use the buttons displayed on the device's touch screen to navigate through the menus of the Elisée 150.

When you start up your Elisée 150, the start screen appears.

The following information is displayed:

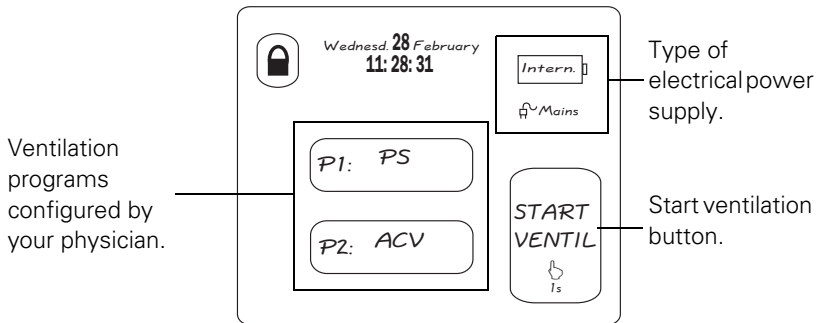


Figure 3: Start screen.

Note: See Section 8.2, "Description of buttons and symbols" on page 19 for more information on the various screens.

3.4 Connecting the circuit

Your ventilator will be fitted with a circuit support to connect a **single** or **double** circuit to, as prescribed by your physician.

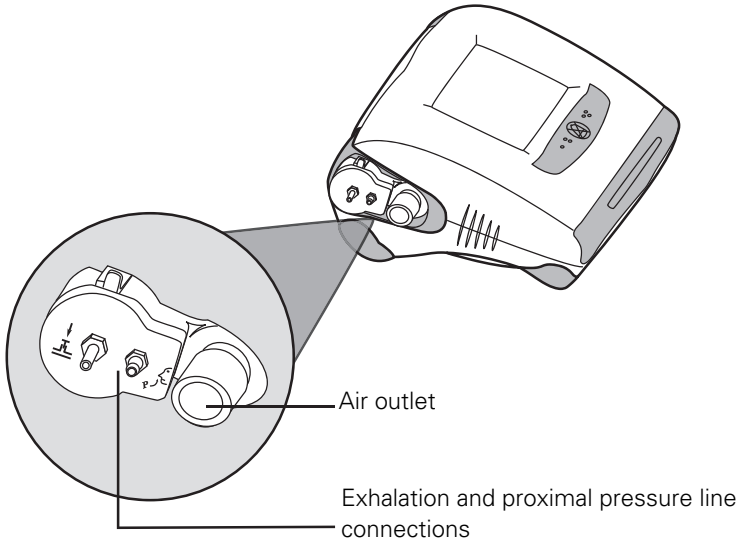


Figure 4: Single circuit support.

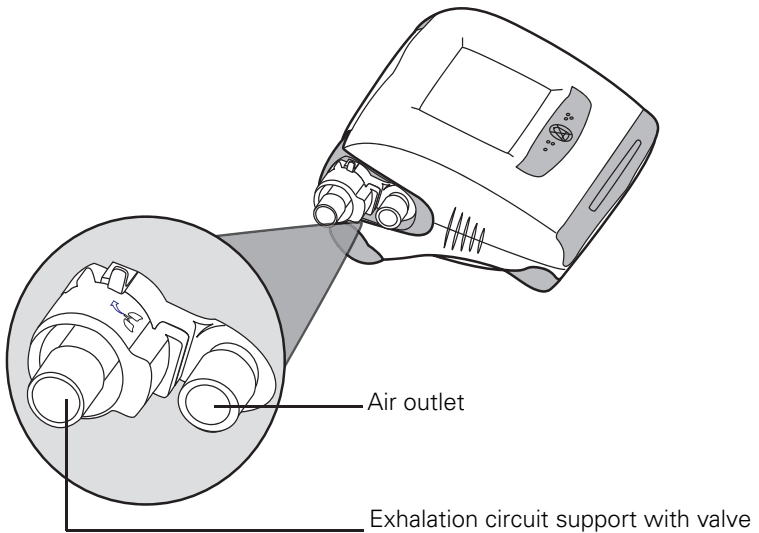


Figure 5: Double circuit support.

3.5 On/Off button

The On/Off button, along with several electrical connection ports, is on the right side of your Elisée 150.

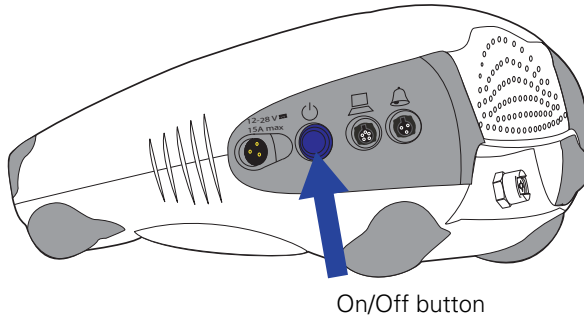


Figure 6: Right side.

3.6 Rear view

At the rear of the ventilator you will see:

- The oxygen connection (if prescribed by your physician)
- The air inlet.

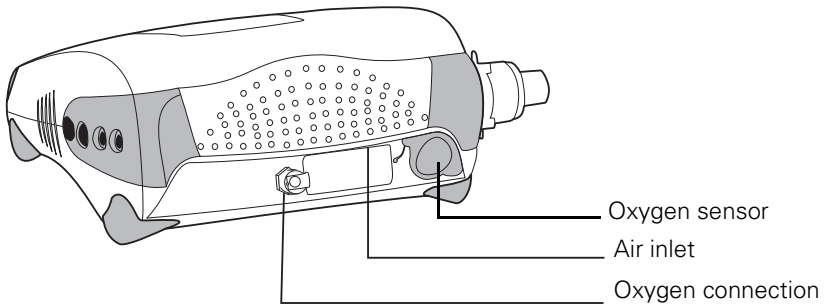


Figure 7: Rear view.

WARNING



- Do not block the air inlet, or the performance of your ventilator may be compromised.
- Use of oxygen can lead to a risk of explosion. Consult your clinical care provider on the necessary precautions.

4 Connection Procedures

4.1 Connecting the circuit

Your system may be configured for either a single circuit or double circuit. For connection instructions, refer to the appropriate section for your air tubing configuration.



WARNING

Only the circuit supplied by your HME provider may be used with your device. Using a different type of circuit may reduce the effectiveness of your treatment.

Connecting a single circuit

1. Connect the expiratory valve tube **which has a connector on one end** by pushing it firmly over the **longer of the two pressure connectors on the ventilator (a)**.
2. Then push the tube **without a connector** firmly onto the **shorter pressure connector (b)**.



CAUTION

Take great care not to confuse the two tubes.

3. Then fasten the patient circuit firmly to the air outlet.

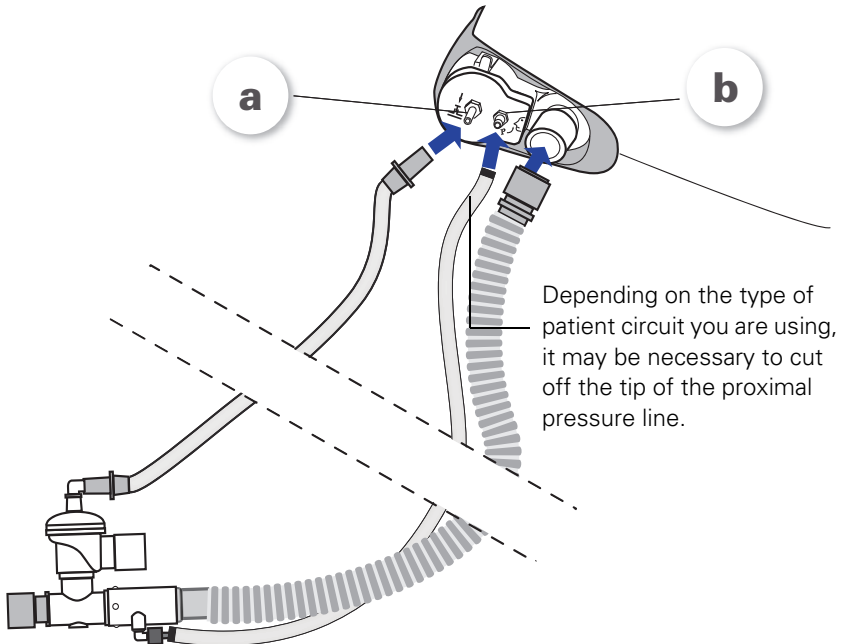


Figure 8: Connection of a **single circuit**.

Connecting a double circuit

1. Connect one limb of your double circuit to the air outlet.
2. Secure the other limb of your circuit to the other connector.

Note: Other components in your patient circuit may include a humidification system, an antibacterial filter, a mask or cannulae, and water traps. Contact your clinical care provider if you have any concerns about connecting your patient circuit or accessories. Read the instructions provided with any accessories you are using (humidifier, filters, etc.).

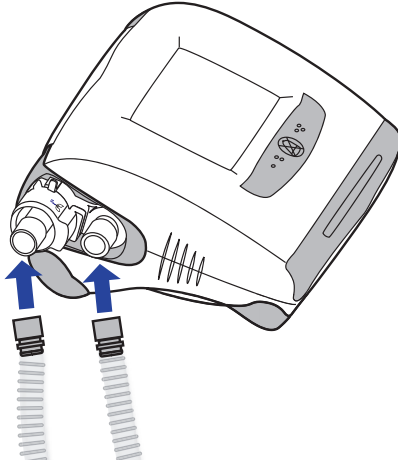


Figure 9: Connection of a **double circuit**.

4.2 Electrical connection

Your ventilation may have one of two electrical connection configurations:

- Standard electrical connection
- or
- External electrical connection (on the right side of the ventilator).

CAUTION



Be careful not to place the ventilator where it could be knocked over or where someone may trip over the power cord.

Standard electrical connection

If you are using the standard electrical connection located under your Elisée 150 (See Figure 11):



Figure 10: **Standard** power cord.

1. Insert one end of the cord into the connector underneath the ventilator.
2. Push down the fastening clip on the connector.
3. Insert the mains plug into the power supply.

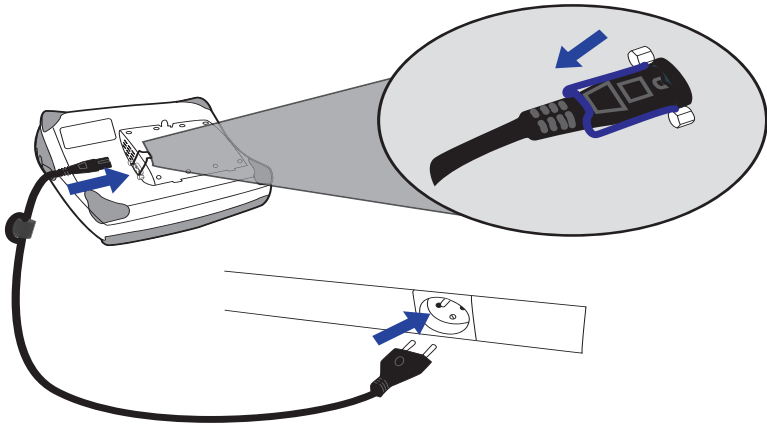


Figure 11: **Standard** mains power connection.



CAUTION

Remember to push down the fastening clip to hold the power cord in place. This will prevent accidental disconnection from the power supply.

External electrical connection

If you are using an external electrical connection as shown below:

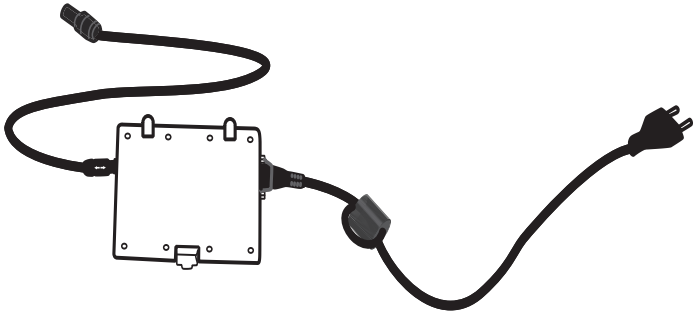


Figure 12: **External** electrical connection.

1. On the right side of the device, insert the cord into the connector in the socket marked "12-28 V " 15A max "
2. Insert the other end of the cord into a power outlet.

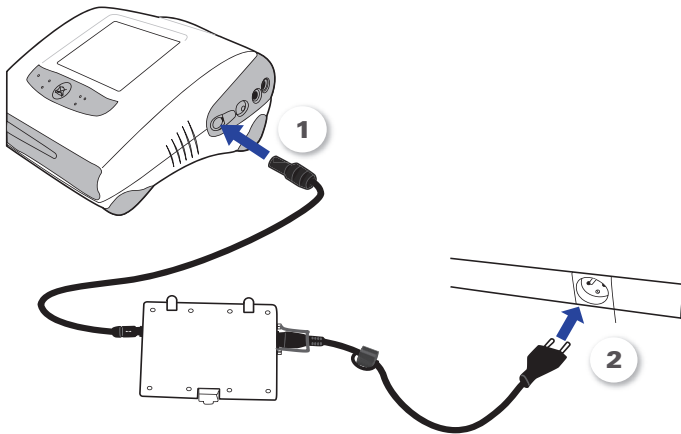


Figure 13: **External** mains power cable connection.

4.3 Connecting an oxygen supply

Your Elisée 150 will be equipped with an oxygen connector should your prescribed treatment require oxygen.

Connect the oxygen supply tube to the oxygen connector on the rear of the ventilator.

CAUTION



Ensure that the oxygen supply is switched off whenever oxygen is being connected or disconnected.

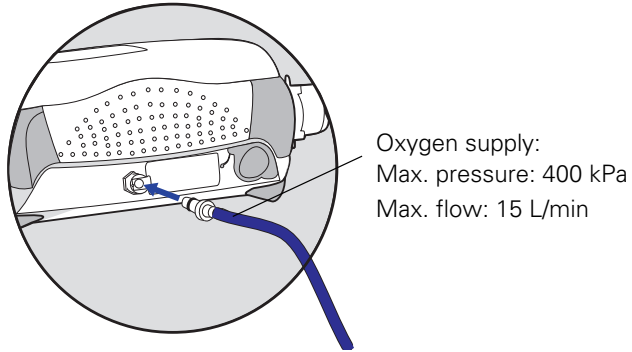


Figure 14: Connection of oxygen supply.

4.4 Connecting the mask

Refer to the instructions given by your physician or HME provider.



CAUTION

It is essential to use only the mask supplied by your physician or HME provider.

4.5 Example of a fully-assembled system

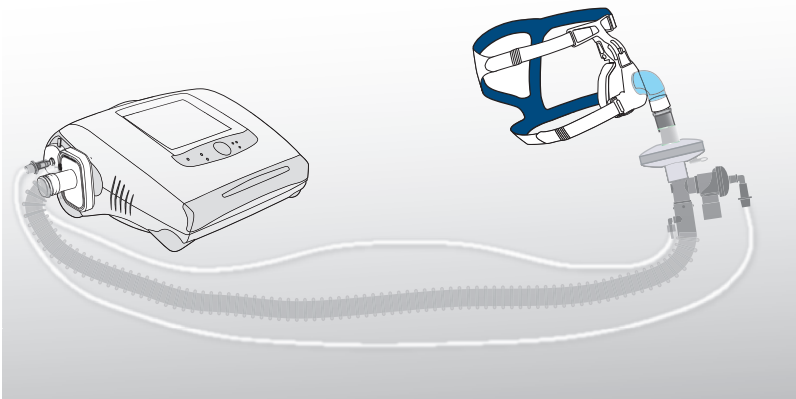



Figure 15: Example of a fully-assembled system (single circuit with expiratory valve and proximal pressure line)

5 How to use

This ventilator and its accessories must be operated in a dust-free environment and kept away from direct sunlight.

The ventilator is a medical device. To ensure smooth operation, keep the ventilator out of reach of pets, and ensure children do not have unsupervised access to it.

5.1 Starting up the ventilator

After making all the required connections (patient circuit, accessories, tracheotomy tube or mask, electrical connections, etc.), press the On/Off button  on the right-hand side of the ventilator.

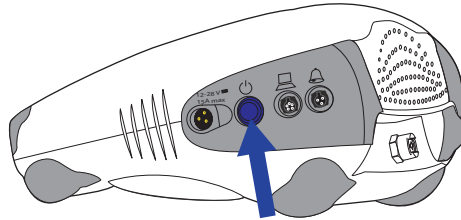


Figure 16: Switch the ventilator on.

5.2 Starting ventilation

When the ventilator starts up, the start screen is displayed. Press and hold the "START VENTIL" button for one second to start treatment.

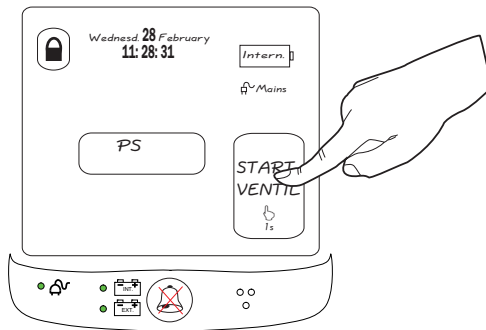


Figure 17: Starting ventilation.

Selecting a ventilation program

Your physician may configure two different ventilation programs on your Elisée 150.

To switch from one ventilation program to the other, simply press and hold the appropriate button. The selected program will turn black.

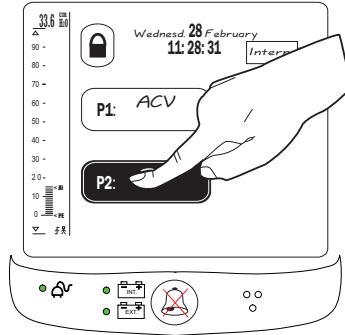




Figure 18: Selecting the ventilation mode.

5.3 Stopping ventilation

1. Press the On/Off button  on the right-hand side of the ventilator.
2. Press  to stop ventilation.

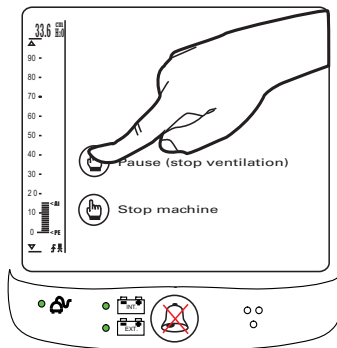




Figure 19: Stopping ventilation.

5.4 Shutting down the ventilator

1. Press the On/Off button  on the right-hand side of the ventilator.
2. Depending on whether or not your ventilator is delivering ventilation:
 - During ventilation, press  to turn off the ventilator:

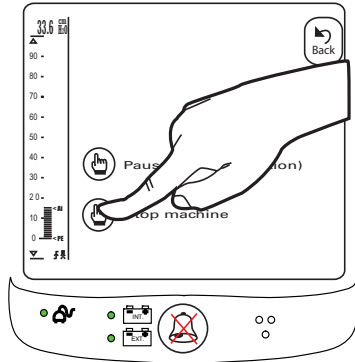


Figure 20: Shutting down the ventilator during ventilation.

- When ventilation is not being delivered, press YES to turn off the ventilator:

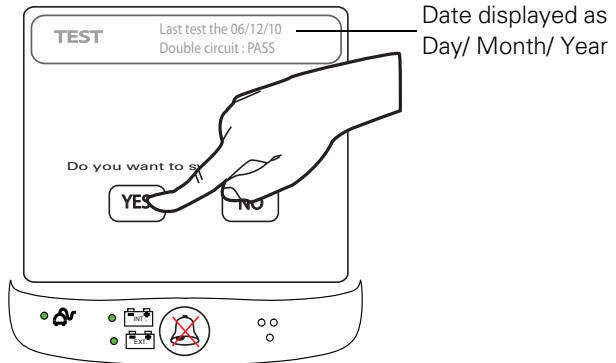


Figure 21: Shutting down the ventilator when ventilation is not being delivered.

5.5 Viewing ventilation settings and measurements

To view the ventilation measurements and the settings programmed by your clinical care provider, press the ventilation program button. The following screen will appear:

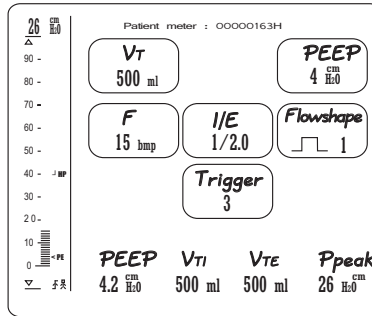














Figure 22: A typical ventilation measurements and settings screen (while ventilation is being delivered).

5.6 Charging the battery


The battery of your Elisée 150 charges whenever your mains power cord is connected (See Section 4.2, “Electrical connection” on page 8), whether or not the ventilator is switched on.

The table below explains the various battery LED displays.

Table 1: Battery LED on the LED panel.

Symbol and LED status		Meaning
Steady green light	 	Battery charged.
Green light, flashing slowly	 	Battery discharging.
Orange light, flashing slowly	 	Battery discharging (battery low).
Red light, flashing slowly	 	Battery discharging (battery flat).
Orange light, flashing rapidly	 	Battery charging interrupted (battery temperature too high or too low).
Green light, flashing rapidly	 	Battery charging.

6 Alarms and Troubleshooting

The Elisée 150 is fitted with alarms to alert you to changes that will affect your treatment. Check that the patient circuit is correctly connected to your ventilator. Some alarms can be deactivated temporarily (for 2 minutes) by pressing the  button.

The alarm will be reactivated if the problem persists.



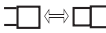
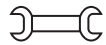
CAUTION

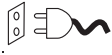



Service and repairs should only be performed by an authorised service agent. Do not attempt to service or repair the ventilator yourself.

The table below will help you identify the cause of the problem. If the fault persists or cannot be identified, do not try to open the device. Instead, contact your HME provider.

Table 2: Alarm, cause and solution.

Alarm icon	Cause	Solution
	Internal battery power low.	Connect ventilator to mains supply.
	External battery power low.	Connect ventilator to mains supply.
	A component in your patient circuit is wrongly connected.	Check that your patient circuit is set up correctly as demonstrated by your clinical care provider, or replace it. Contact your clinical care provider if the alarm persists.
	A technical fault has occurred in your ventilator.	Contact your clinical care provider.
HP	A component in your patient circuit (tubing, mask, tracheotomy tube, etc.) may be blocked.	Clean, empty or replace the components of your patient circuit. Contact your clinical care provider if the alarm persists.
LP	A component in your patient circuit (tubing, mask, tracheotomy tube, etc.) may be wrongly connected.	Check that your patient circuit is set up correctly as demonstrated by your clinical care provider, or replace it. Contact your clinical care provider if the alarm persists.

Alarm icon	Cause	Solution
O2	A component in your oxygen circuit may be wrongly connected.	Check that the oxygen supply equipment is securely connected. Contact your clinical care provider if the alarm persists.
V	Your breathing has changed OR A component in your patient circuit (tubing, mask, tracheotomy tube, etc.) may be wrongly connected.	Check that your patient circuit is set up correctly as demonstrated by your clinical care provider, or replace it. Contact your clinical care provider if the alarm persists.
F	Your breathing has changed OR A component in your patient circuit (tubing, mask, tracheotomy tube, etc.) may be wrongly connected.	Check that your patient circuit is correctly set up as demonstrated by your clinical care provider, or replace it. Contact your clinical care provider if the alarm persists.
	The power supply is disconnected.	If the disconnection is intentional, or due to a power outage, acknowledge by pressing the Alarm Silence button  . Otherwise, reconnect the power supply. Contact your clinical care provider if the alarm LED remains lit.

7 Cleaning and Maintenance

Your clinical care provider will maintain your ventilator and its accessories regularly.

You should also maintain your ventilator and accessories regularly as described below. Maintenance instructions for the various components are shown in this table.

Table 3: Maintenance frequency.

Component	Frequency
Patient circuit.	Weekly.
Exterior of ventilator.	Weekly.
Dust filter (clean).	Monthly.
Dust filter (replace).	Every 6 months, or when worn or soiled.

CAUTION



- For maintenance of the following accessories: mask, humidifier, antibacterial filter and water traps, refer to the manuals provided with these items.
- Do not use bleach, chlorine, alcohol, aromatic-based solutions (including all scented oils), or moisturising or antibacterial soaps. These solutions may cause hardening and reduce the life of the product.

WARNING



Beware of electric shock. Do not immerse the ventilator or power cord in water. Always unplug the ventilator before cleaning and be sure that it is dry before plugging it back in.

7.1 Maintenance of the dust filter

Inspect the filter every month to check if it is blocked by dirt or contains holes. With normal use, the dust filter of your Elisée 150 needs to be replaced every six months.

To replace or clean the filter, use a pair of tweezers to pull it out of its housing at the rear of the ventilator.

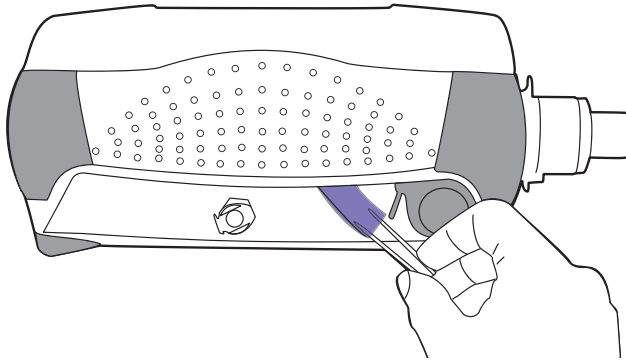


Figure 23: Removing the dust filter.

7.2 Maintenance of the exterior of the ventilator

Clean the exterior of your Elisée 150 with a damp cloth and a mild detergent.

CAUTION



Never place the ventilator in direct contact with liquid.

7.3 Maintenance of your circuit

If your patient circuit is reusable, you can clean and disinfect it. Please follow recommendations provided by your home care provider regarding maintenance of your patient circuit.

8 Appendices

8.1 Technical specifications

Dimensions (in mm)

L x W x H = 290 x 250 x 130.

Weight

Weight of the ventilator: 3.7 kg (8.16 lbs).

Weight of the ventilator with the mains power pack: 4.4 kg (9.7 lbs).

Weight of the ventilator with an external battery pack: 4.5 kg (9.9 lbs).

Power supply

Mains power: 110-240 V AC ; 50/60Hz ; 0.67-1.33 A.

External power: 12-28 VDC, 15 A max.

Batteries: Li-Ion; 14.4 VDC; 6.3 AH.

Internal battery life: Minimum of 6 hours.

External battery life: Minimum of 6 hours.

Battery charging time: 6 hours.

WARNING



The above battery life applies only for the following precise settings:

Type: adult/invasive, PCV mode, P Insp. = 20 cmH₂O, PEEP = 0 cmH₂O,



F = 15 bpm, Ti = 1.2 s, Triggers = No, Slope = 3, Patient circuit CIR009727,

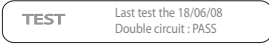
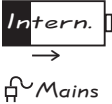
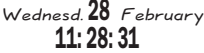



Maquet 190 test lung, VTe = 425 mL, Screen brightness: Automatic, Altitude:

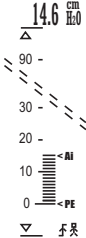

100 metres, Temperature: 20°C.

8.2 Description of buttons and symbols

Table 4: Buttons and symbols on the Elisée 150

Button / symbol	Function
Start ventilation 	Pressing and holding this button for 1 second starts the selected ventilation program.
Ventilation program 	This button is used to select one of the ventilation programs configured by your physician, as well as your main prescribed treatment settings.

Button / symbol	Function
<p>Manual test</p> 	<p>This button is used to carry out a manual test, so that the ventilation can record the configuration of your patient circuit. Date displayed as Day / Month / Year.</p> <p>CAUTION Press this button only on the recommendation of your clinical care provider, and only if you have been trained in how to perform a manual test.</p>
<p>Type of battery and power supply</p> 	<p>These symbols show the type of battery (internal or external) and the type of power supply (mains or external).</p>
<p>Date and time</p> 	<p>This is where the date and time are displayed.</p>
<p>Alarm Silence button</p> 	<p>This backlit button lights up when an alarm condition is present, and can be used to silence the audible alarm temporarily (for two minutes).</p>
<p>Setting</p> 	<p>These are the ventilation settings prescribed by your physician and entered by your clinical care provider.</p>
<p>Measurement</p> 	<p>These are the measurements taken by your Elisée 150 during ventilation.</p>

Button / symbol	Function
Pressure indicator 	This area shows the pressures being delivered by your Elisée 150 (inspiratory and expiratory pressure). The figure at the top is the maximum pressure.
Back 	This button takes you back to the previous screen.

For more information on the ventilation modes, parameters or measurements, contact your HME provider.

8.3 Travelling with your ventilator

For long journeys, it is advisable to carry your device in its travel bag.

Also remember to pack:

- the power cord,
- the patient circuit and accessories,
- the connector for the oxygen tubing (if you are using the ventilator's oxygen option).

If you intend to travel by air with the ventilator, ask your clinical care provider about the required formalities.


8.4 Manual test (while ventilation is stopped)

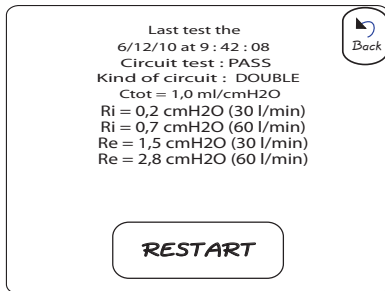
If your clinical care provider recommends that you do so, you may perform a manual test. This test lets your ventilator record the configuration of your patient circuit after you have made changes to the circuit (replaced the air tubing or added accessories).

WARNINGS

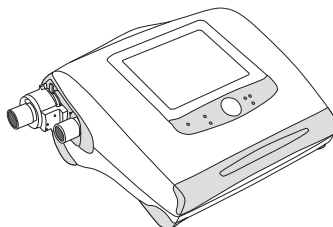
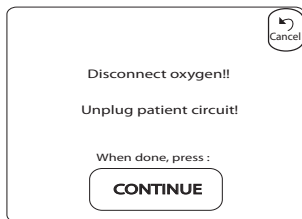


- The patient must not be connected to the ventilator during this test.
- If your ventilator is connected to an oxygen supply, disconnect it.
- Make sure that when you perform this test, all the accessories that will be used during ventilation are connected. Repeat the test every time an accessory is added or removed.
- If the test fails, turn off the ventilator and contact your clinical care provider.

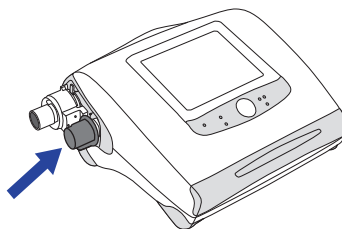
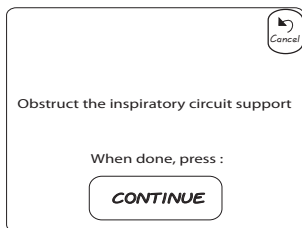
1. On the start screen (See Section 5.2, "Starting ventilation" on page 12), press the  button on the right-hand side of the device, then press the "Test" button for **3 s**.
If no other buttons are pressed for 8 s, the ventilator will return to the start screen.
2. The results of the last test are displayed. Press the "Restart" button to start a new manual test. If no other buttons are pressed for 30 s, the ventilator will return to the start screen.



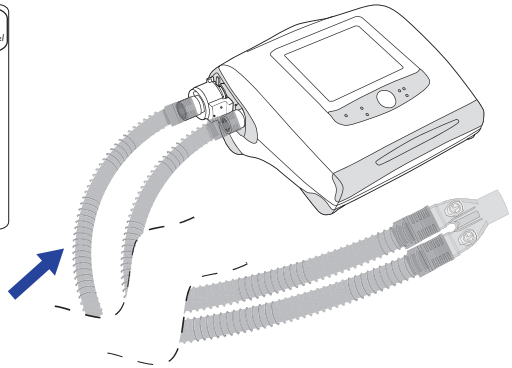
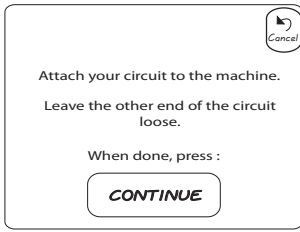
3. Follow the instructions on the screen, then press "Continue".



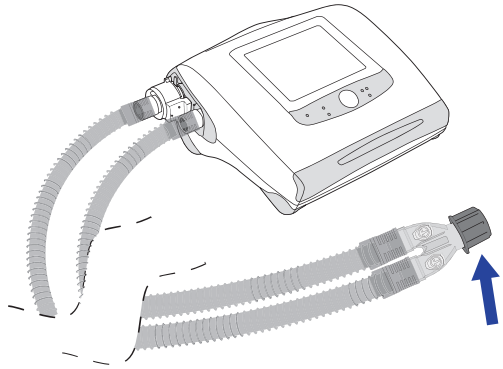
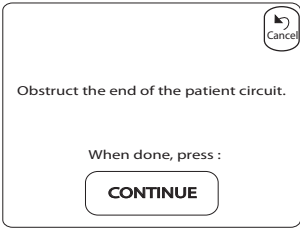
4. Block the insufflation outlet on the ventilator, then press "Continue".



- Connect one end of the patient circuit, leaving the other end free, then press "Continue".

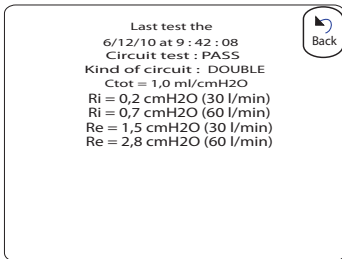


- Block the free end of the circuit and press "Continue".

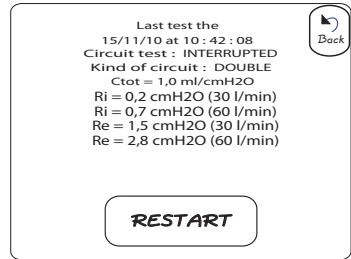


The test results tell you:

- Whether the test failed, passed or was interrupted;



Passed screen test



Interrupted screen test

- What type of circuit is connected;
- Any additional information.

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