

# AERO Control System

## Dealer Manual

Edition 1.0

Prod. Code 0894411

Original Instructions for Use

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# 1 Foreword

This manual contains information about the AERO Control System intended exclusively for our distributors.

General information about our machines can be found in the user manual supplied with the unit.

You can download all our user manuals from our website: [www.henkelman.com](http://www.henkelman.com). There you will also find information and videos on servicing and programming our machines.

If you have any questions, please feel free to contact us by email at [info@henkelman.com](mailto:info@henkelman.com) or by calling us on +31 (0)73 621 3671.

## 1.1 Symbols used in this manual

The following symbols are used for all procedures in which the safety of the user and/or technician is at risk and caution is required.



Indicates a potentially hazardous situation that must be avoided. Failure to follow the safety instructions may result in moderate injury and damage to equipment.



Provides additional information to help perform a task or prevent problems.

## 2 Before first use

Before first use, the following steps must be performed:

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Failure to do so may damage the machine beyond repair.

1. Check the pump oil level using the sight glass.
  2. Optional: Top up oil if necessary.
- 

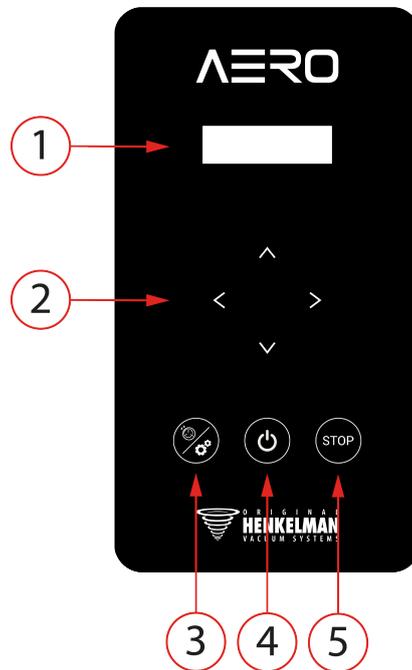


For more information on how to perform these steps, see the “Vacuum pump maintenance” section of the user manual.

## 3 AERO Control System

### 3.1 Controls

#### Control panel



- 1. Screen**  
The screen displays the various programmes, settings and progress of the cycle.
- 2. Cursor keys**  
Use these to navigate through the functions.
- 3. Pump conditioning/setting key**  
This key allows the pump conditioning cycle to be started, and is also used to access the settings menu.
- 4. Stop key**  
This key interrupts the full cycle during a packaging cycle. All functions are skipped and the cycle ends.
- 5. On/Off key**  
This key switches the control on or off.

## Cursor keys

The cursor keys let you to adjust machine and/or function settings:

What to do	Action
Select another setting.	Press ▲ or ▼.
Edit selected setting.	Press ►
Adjust variable.	Press ▲ or ▼.
Confirm variable.	Press ► once you have found the required variable.
Return to navigation mode.	Press ◀ when all settings have been configured to return to navigation mode.

## 3.2 Starting up the machine

1. Plug in the power cord.
2. Press the **ON/OFF button** on the control panel to switch on the control.

The display shows the last program used.

## 3.3 Open the settings menu

1. Press and hold the **Pump Conditioning/Setting** button for 3 seconds.
2. Enter dealer code 4753.

Use the ◀ and ► keys to select a number and use the ▲ and ▼ keys to change it.



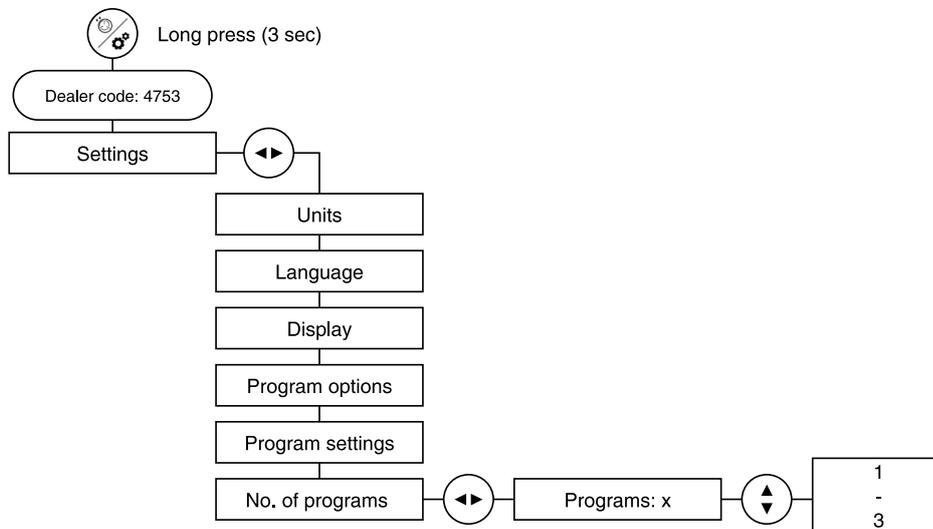
3. Confirm the code by pressing ►.



The machine remembers the last used authorisation code, even when the machine has been switched off. You may therefore need to change the authorisation setting manually when you have finished.

## 3.4 Change number of programs

The Aero control comes with 3 programs as standard, which can be reduced to 1 program for the sake of user friendliness.



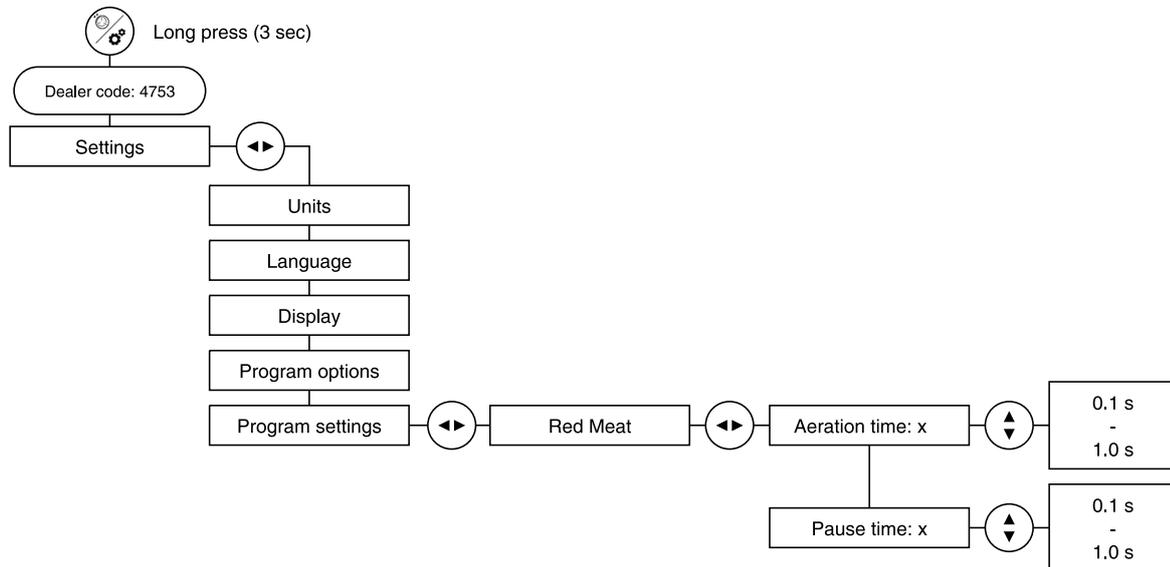
1. Go to **Settings**.
2. Go to **No. of programs**.
3. Go to **No. of programs: x**.
4. Change the number of programs to **1, 2 or 3**.
5. Press **◀** to save the settings and return to the menu.

## 3.5 Red meat

Degassing fresh red meat during the vacuum-packaging process may result in the formation of air bubbles inside the package.

Using the **Red Meat** function prevents degassing of the product during and after the sealing phase.

The **Red meat** function can be selected for each program individually.



### Setting aeration time

The machine features a special program that prevents moisture from flowing out of red meat after it has been packed. During the sealing cycle, the aeration valve is briefly activated, causing air to flow into the chamber and the vacuum bag to form around the product.

The aeration valve actuation time is set 0.1 seconds by default and can be adjusted as follows:

1. Go to **Settings**.
2. Go to **Program settings**.
3. Go to **Red meat**.
4. Go to **Aeration time: x**
5. Set the aeration time to a value between **0.1** and **1.0**
6. Press ◀ to save the settings and return to the menu.



This value may only be changed after consulting the manufacturer.

## Set pause time

To prevent air from entering the vacuum bag, a pause time is set after the sealing bar rises.

The pause time is set at 0.1 second by default and can be adjusted as follows:

1. Go to **Settings**.
2. Go to **Program settings**.
3. Go to **Red meat**.
4. Go to **Pause time: x**
5. Set the pause to a value between **0.1** and **1.0**
6. Press ◀ to save the settings and return to the menu.

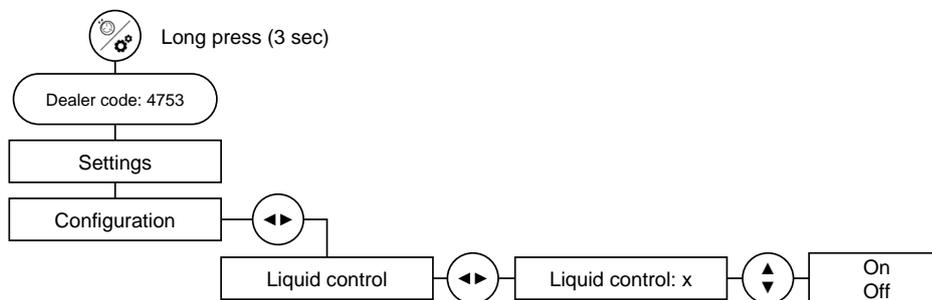


This value may only be changed after consulting the manufacturer.

## 3.6 Activate liquid control

If the machine features the **Liquid Control** option and it is switched on, the machine pulls a vacuum until the set level has been reached. If the product reaches boiling point before the set vacuum is reached, the machine will move on to the next step of the cycle.

The **Liquid Control** option can be switched on or off for each program.

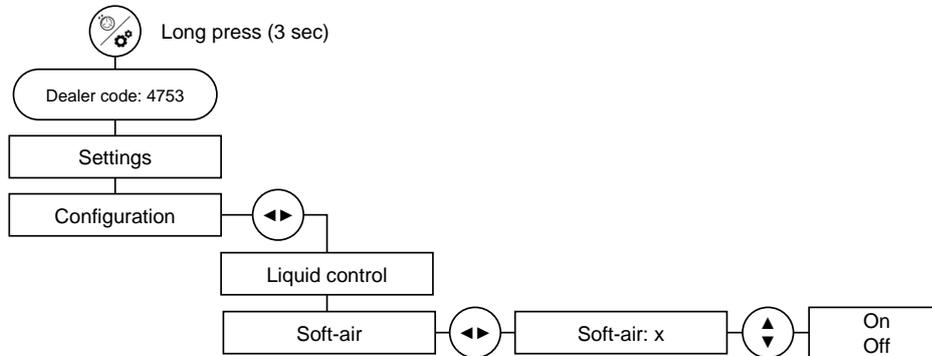


1. Go to **Configuration**.
2. Go to **Liquid control**.
3. Go to **Liquid control: x**.
4. Turn liquid control **ON** or **OFF**.
5. Press ◀ to save the settings and return to the menu.

## 3.7 Activate soft air

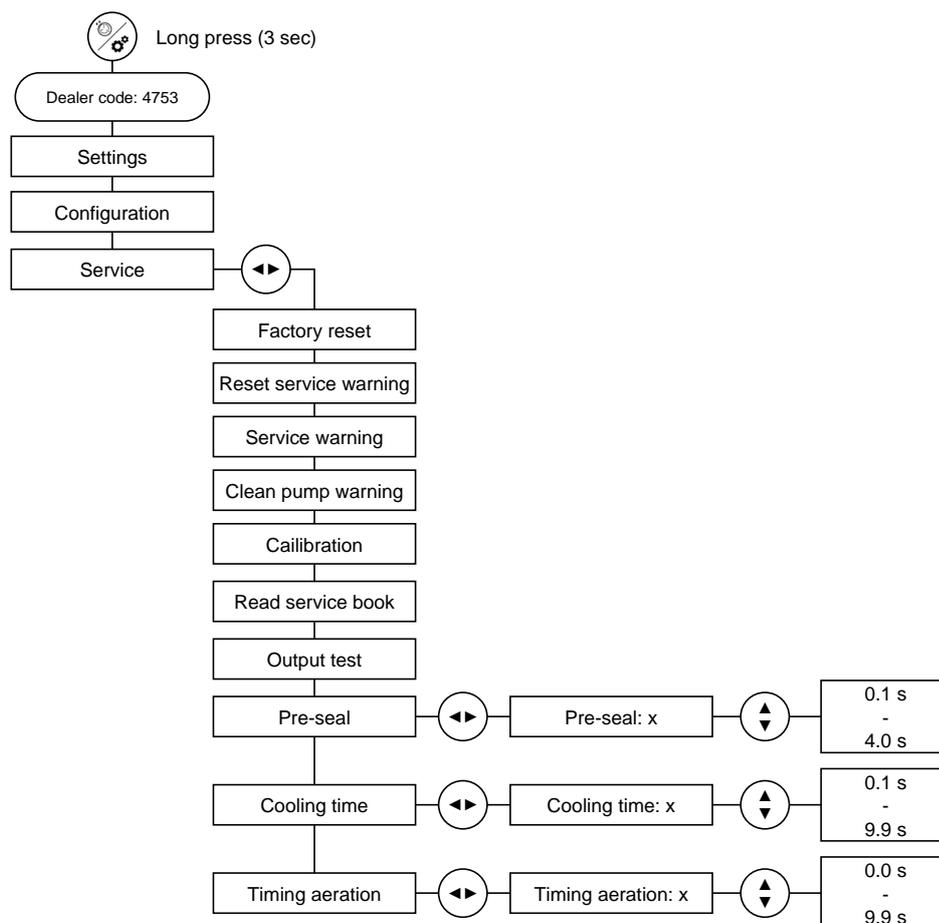
When the **Soft Air** function is switched on, air is gradually let back into the chamber. This encloses the product while ensuring optimal protection of the product and the vacuum bag.

**Soft Air** is perfect for vacuum packaging products with sharp edges, such as satay, T-bone steaks, rack of lamb, lobster and spare ribs.



1. Go to **Configuration**.
2. Go to **Soft air**.
3. Go to **Soft air: x**
4. Switch soft air **On** or **Off**.
5. Press ◀ to save the settings and return to the menu.

## 3.8 Adjust cycle times



### Pre-seal time

The pre-seal time is set to 1 second as standard.

1. Go to **Service**.
2. Go to **Pre-Seal time**.
3. Set the pre-seal time to a value between **0.1** and **4.0**.
4. Press ◀ to save the settings and return to the menu.

### After-seal time

After-seal (cooling time) is set to 1 second as standard.

1. Go to **Service**.
2. Go to **Cooling time**.
3. Set the after-seal time to a value between **0.1** and **9.9**.
4. Press ◀ to save the settings and return to the menu.

## Timing aeration

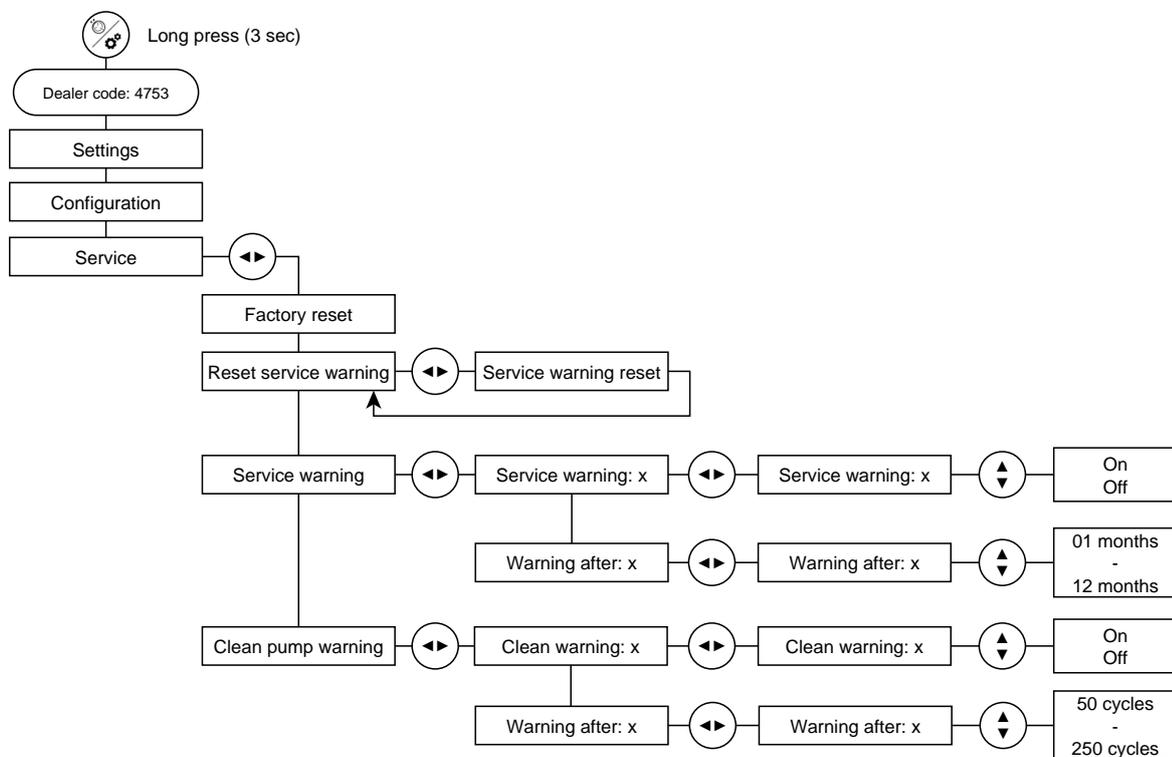
The cycle time can be reduced by shortening the period between sealing and aeration.

The cycle time can be reduced in 0.1-second intervals up to a maximum of 9.0 seconds. The default setting is 0.0 (OFF).

1. Go to **Service**.
2. Go to **Timing aeration**.
3. Set the timing aeration to a value between **0.1** and **9.9**.
4. Press ◀ to save the settings and return to the menu.

## 3.9 Pump cleaning / Service

A pump cleaning/service warning can be set on the Aero controller. After the set time, the machine displays a warning that the pump needs cleaning or maintenance.



## Pump cleaning warning

Switch the pump cleaning warning on or off:

1. Go to **Service**.
2. Go to **Clean pump warning**.
3. Go to **Clean pump warning**.
4. Go to **Clean pump warning: x**.
5. Switch clean pump warning **On** or **Off**.
6. After changing the settings, press ◀ to save them and return to the menu.

When the function is switched on, the user is prompted to clean the pump every 100 cycles

Adjust warning interval:

1. Go to **Service**.
2. Go to **Clean pump warning**.
3. Go to **Warning after**.
4. Go to **Warning after: x**.
5. Set the number of cycles to a value between **50** and **250**.
6. After changing the settings, press ◀ to save them and return to the menu.

## Service warning

Switch the service warning on or off:

1. Go to **Service**.
2. Go to **Service warning**.
3. Go to **Service warning**.
4. Go to **Service warning: x**.
5. Turn service warning **On** or **Off**.
6. Press ◀ to save the settings and return to the menu.

When the feature is switched on, the user is prompted to service the pump every 6 months.

Adjust warning interval:

1. Go to **Service**.
2. Go to **Service warning**.
3. Go to **Warning after**.
4. Go to **Warning after: x**.
5. Set the number of months to a value between **01** and **12**.
6. Press ◀ to save the settings and return to the menu.

## Reset service warning

When the service has been carried out the service warning can be reset.

Reset service warning

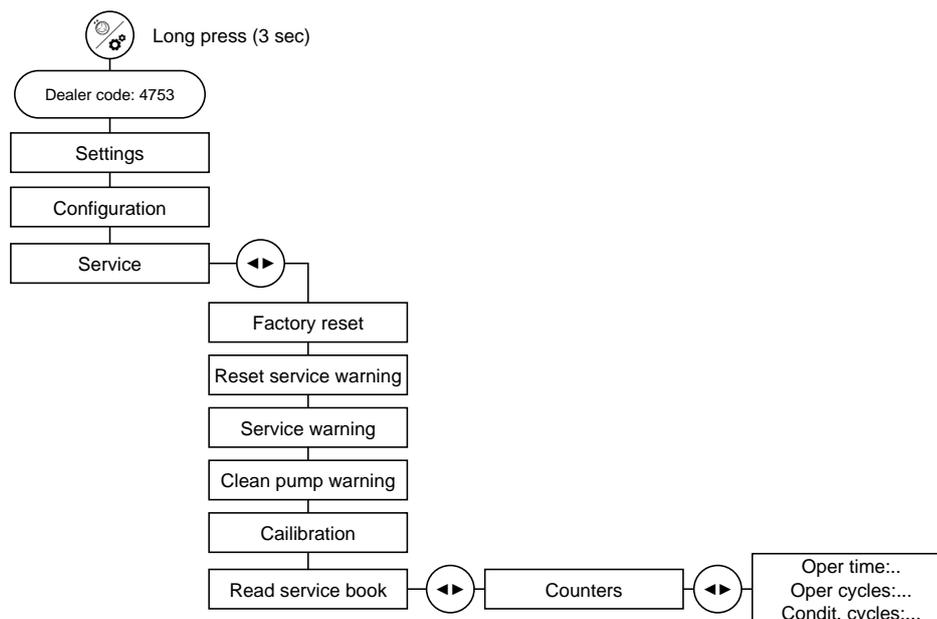
1. Go to **Service**.
2. Go to **Reset service warning**.
3. Go to **Service warning reset**.
4. Press ► to confirm and return to the menu.

## 3.10 Machine hours counter

The machine hours counter logs the machine's operating hours and can be consulted to gather information about its status and use.

The screen displays the following registered functions:

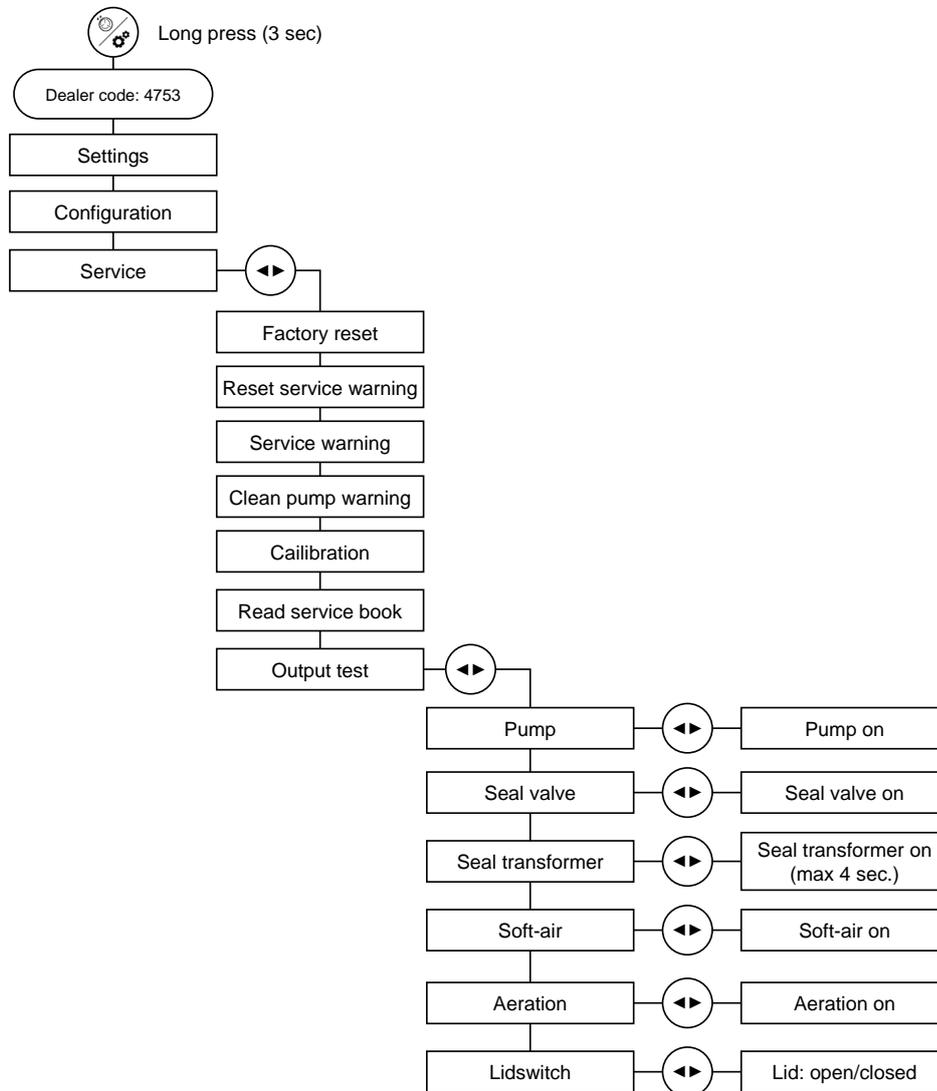
- The total number of hours the pump has been in operation.
- The total number of cycles completed by the machine.
- The total number of cycles performed by the pump conditioning program.



1. Go to **Service**.
2. Go to **Read serv. logbook**.
3. Go to **Counters**.
4. Read the counters and note the values as appropriate
5. Press ◀ to return to the menu.

## 3.11 Output test mode

The output test mode allows you to switch on the various functions of the packaging cycle individually. This means a step-by-step cycle test can be performed in order to locate a problem.



The vacuum pump is the first function that can be tested. When switched on, the pump starts working and a vacuum is created after the lid is closed. If the vacuum pump is then switched off, the lid is held closed by the remaining vacuum in the chamber. This remaining vacuum is needed for testing other vacuum-related functions such as sealing, soft-air and aeration.

During actuation of the seal valve, air will flow through this valve to the seal cylinders to lift the sealing bar. If the sealing system is in good condition, air will only enter briefly. If air continues to flow in, there must be a leak somewhere in the sealing system. The other functions can be tested in the same way.

## Output tests

1. Go to **Service**.
2. Go to **Output test**.
3. Select the output to be tested.
4. Press ► to switch it on.
5. Press ► to switch it off.

## 3.12 Restoring factory settings

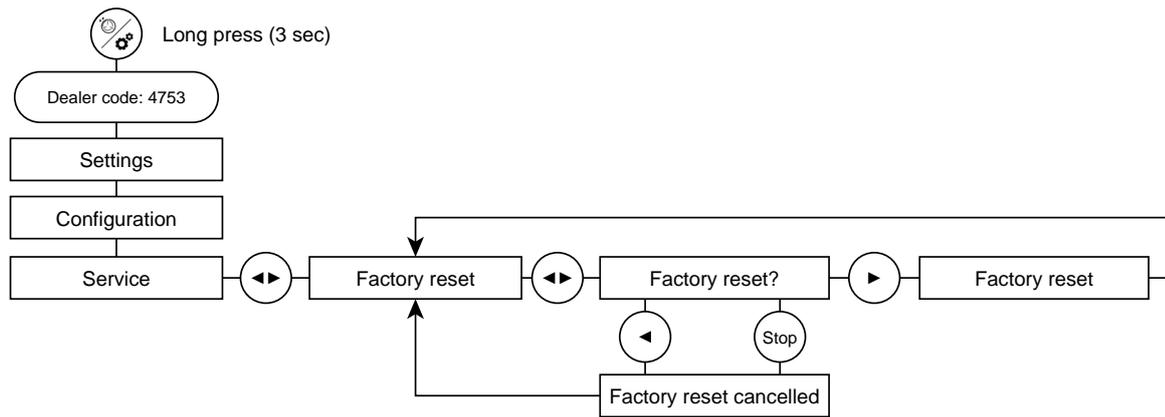
A customer or dealer may have changed so many settings that the machine no longer works as expected. In this situation, it can be easy to restore the factory settings.

The settings that may be restored depend on the authorisation level of the logged in user.

Owner	Dealer
Unit	Unit
Language	Language
Display Settings.	Display Settings.
External vacuum availability	External vacuum availability
Red meat availability	Red meat availability
	Red meat settings
	Number of programs.
	Liquid control
	Soft-air
	Service warning settings
	Clean pump settings
	Calibration
	Pre-seal
	After Seal
	Timing Aeration



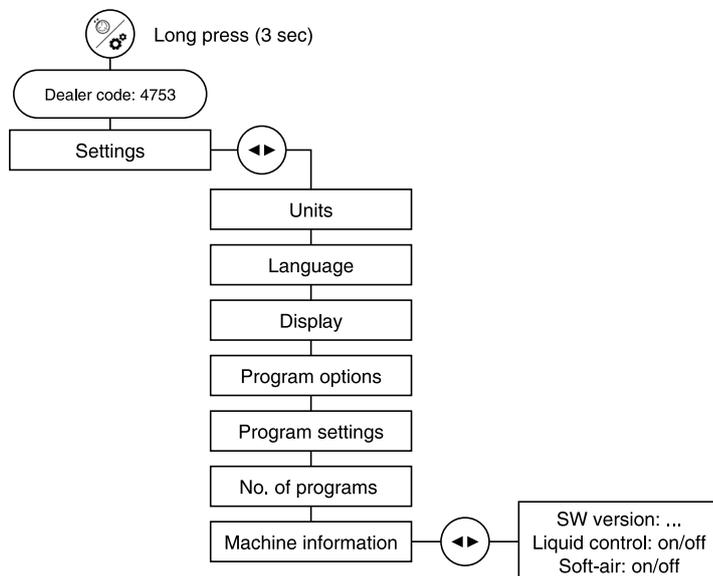
After restoring factory setting at dealer-level, the machine must be recalibrated.



1. Go to **Service**.
2. Go to **Factory reset**.
3. Go to **Factory reset?**.
4. Press ► to restore the machine to factory settings.
5. Press ◀ or **Stop** to return to the menu without restoring factory settings.

### 3.13 Read software version

Troubleshooting may require checking which software version is installed and then updating it if necessary.

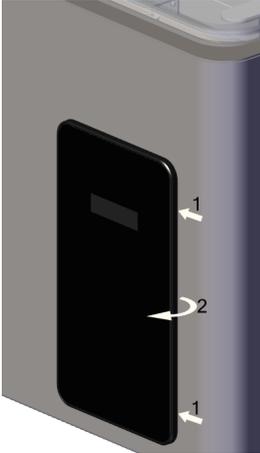


1. Go to **Settings**.
2. Go to **Machine info**.
3. Go to **SW version**.
4. Read and make a note of the software version.
5. Press ◀ to return to the menu.

## 3.14 Updating software

### Preparation

To perform the software update, the front panel must be opened to allow access to the USB port.

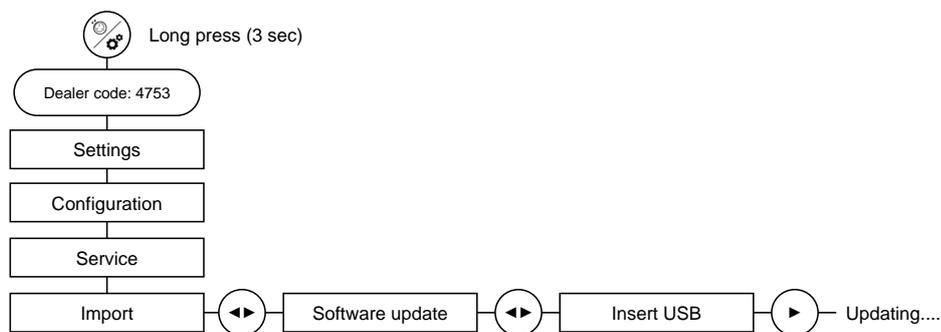


1. Place your fingers on the side of the panel and push it to the left (1).
2. At the same time, pull the panel out a little (2).
3. The USB port can now be seen.
4. Insert a USB flash drive with the new software version.



The USB flash drive must only hold the file supplied by Henkelman. The name of the file must not be changed.

### Update



1. Go to **Import**.
2. Go to **Software update**.
3. Go to **Insert USB**.
4. Press ▶ to start the update.
5. Once the software update is complete, the home screen is displayed.

### Completion

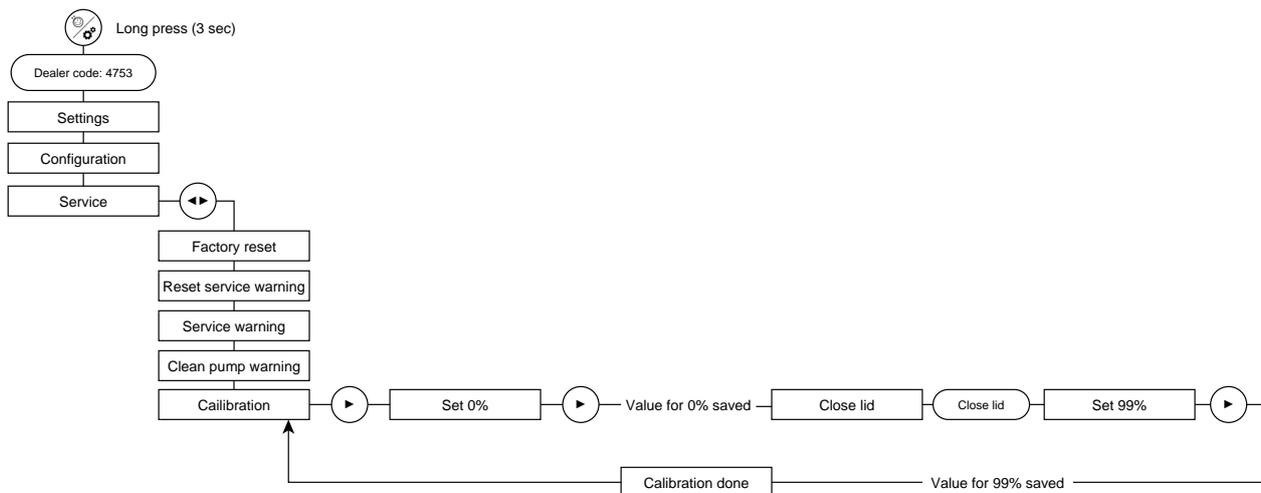
1. Remove the USB flash drive.

- Place your fingers on the side of the panel and push it to the left while pushing it in against the machine until the tabs click in place behind the sheet metal.

### 3.15 Calibrating the sensor

Regular calibration of the machine is required to maintain optimum performance. Calibrating the pressure sensor requires a digital vacuum gauge, which is available from Henkelman.

The vacuum gauge is placed in the vacuum chamber. The atmospheric pressure is set first with the lid open. The lid is then closed and the vacuum cycle is started. When the vacuum gauge reads 7-10 mbar, 99% vacuum can be confirmed. The calibration protocol is then complete.



- Go to **Service**.
- Go to **Calibration**.
- Go to **Set 0%**
- Place the vacuum gauge in the vacuum chamber.
- Press ► to start. The atmospheric pressure is set.
- Go to **Close lid**.
- Close the lid.
- Go to **Set 99%**
- Wait until the vacuum gauge reads 7-10 mbar.
- Press ► to confirm the calibration.
- Once the calibration is complete, the display shows **Calibration done**.
- Remove the vacuum gauge from the vacuum chamber.

## 4 Maintenance schedule

Operation *	1-D	1-W	1-M	6-M	1-Y	4-Y
<b>Cleaning</b>						
Clean the machine.	X					
<b>Inspections</b>						
Check the oil level.		X				
Run the pump cleaning program.		X				
Inspect the sealing bars.		X				
Inspect the silicone seal of the silicone holders.		X				
Inspect the lid seal.		X				
Check the plastic lid for cracks (if applicable).		X				
Inspect the lid springs. Pay particular attention to signs of any damage and the lid spring fixings.					X	
<b>Lubrication</b>						
Change the vacuum pump oil and oil filter. See <i>Technical specifications</i> on page 26 for oil type.				X		
<b>Replacement</b>						
Replace the seal wires.				X		
Replace the silicone seal of the silicone holders.				X		
Replace the lid seal.				X		
Replace the oil mist filter.					X	
Please contact your dealer for a professional service.					X	
Replace the plastic lid (if applicable).						X

\* 1-D = Daily, 1-W = Weekly, 1-M = Every month, 6-M = Every 6 months, 1-Y = Yearly, 4-Y = Every 4 years

## 5 Troubleshooting

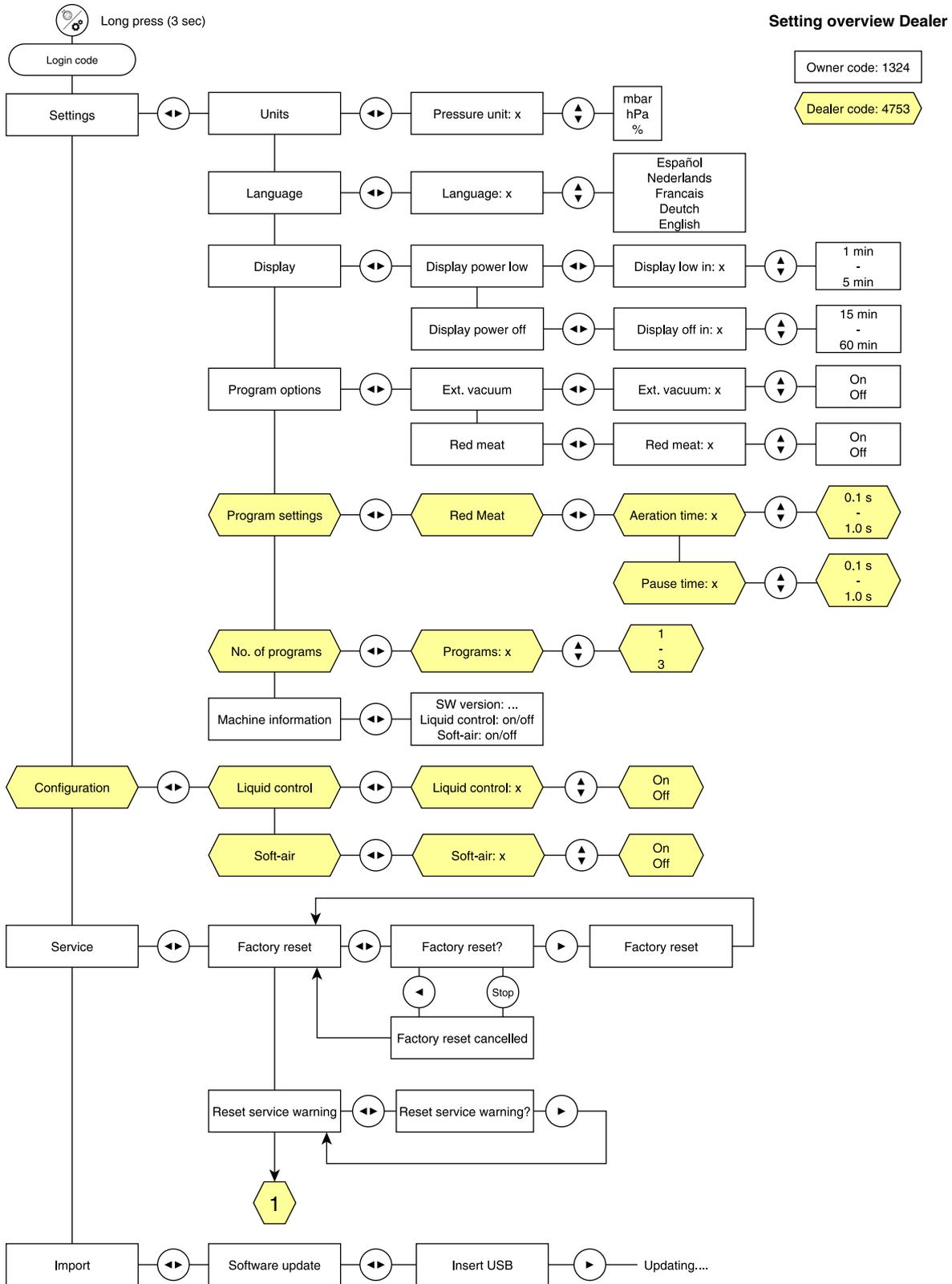
The tables below indicate the possible problems, their causes and the steps to be taken.

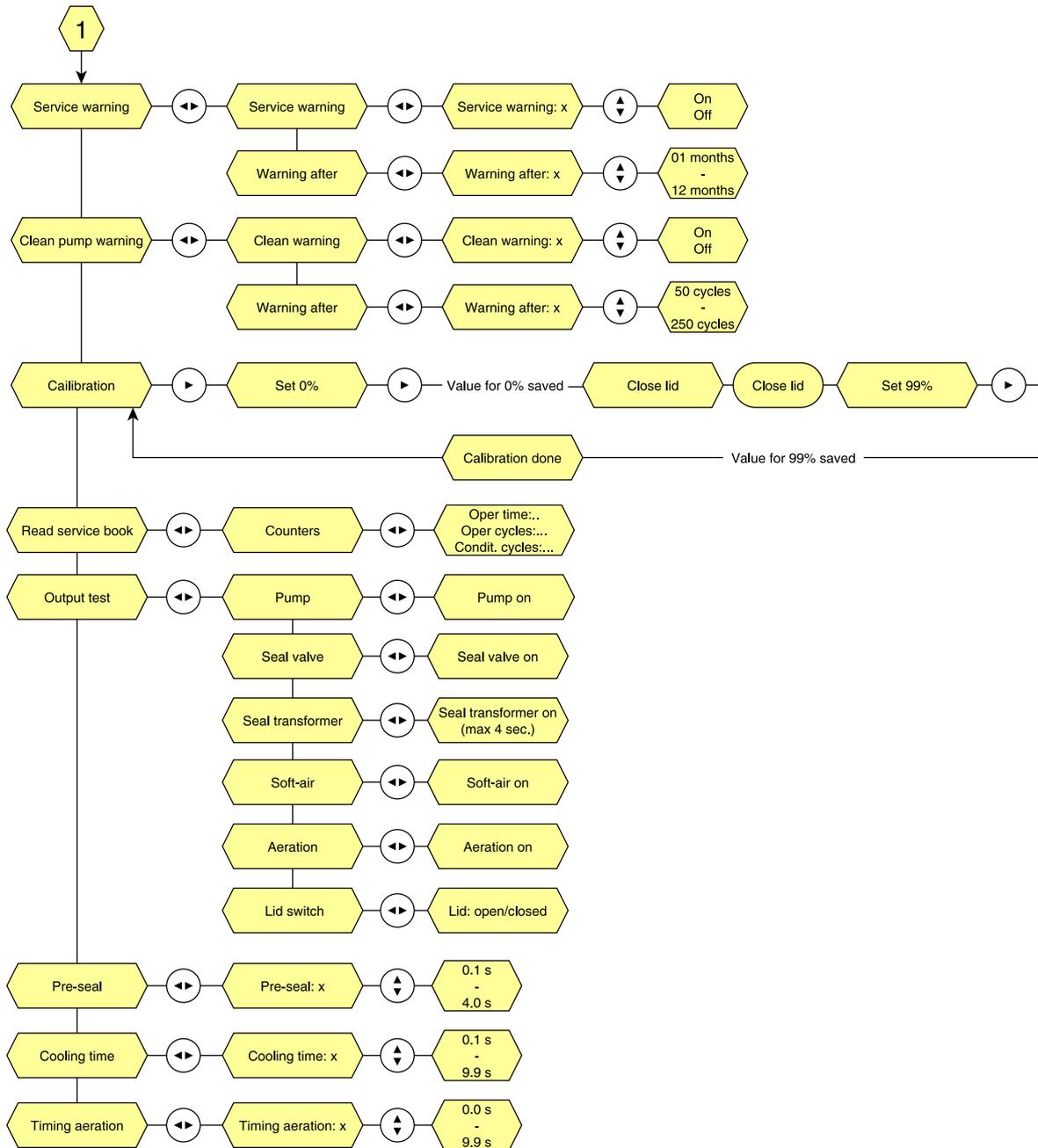
Problem	Operation	More information
Control panel does not light up.	<ul style="list-style-type: none"> <li>• Plug the machine into the mains.</li> <li>• Check the circuit breaker.</li> <li>• Check or replace the control transformer fuse.</li> </ul>	
The control panel is switched on but there is no activity after closing the lid.	<ul style="list-style-type: none"> <li>• Check or adjust the lid switch.</li> <li>• Check or replace the control transformer fuse.</li> <li>• Check or replace the circuit board fuse.</li> </ul>	
Insufficient final vacuum.	Check the program's vacuum settings and adjust if necessary.	See "Operation" in the user manual.
	Check whether the extraction opening is not covered.	See "Vacuum pump" in the user manual.
	Check the oil level in the pump.	See "Removing oil, adding oil" in the user manual.
	Check/replace the oil mist filter.	See "Replacing the oil mist filter" in the user manual.
	Check/replace the lid seal.	See "Replacing the lid seal" in the user manual.
Vacuum process is slow.	Check whether the extraction opening is not covered.	See "Vacuum pump" in the user manual.
	Check the oil level in the pump.	See "Removing oil, adding oil" in the user manual.
	Check/replace the oil mist filter.	See "Replacing the oil mist filter" in the user manual.
Vacuum bag is not sealed correctly.	Check the program's seal settings and adjust if necessary.	See "Operation" in the user manual.
	Check/replace the Teflon tape and the sealing wires.	See "Replacing the seal wire" in the user manual.

Problem	Operation	More information
	Check/replace the silicone seal in the silicone holders.	See “Replacing the silicone seals in the silicone holders” in the user manual
	Check inside the vacuum bag for any dirt and clean it.	
Lid does not open automatically.	Check the gas springs in the lid.	

# 6 Annexes

## 6.1 Software diagram





## 6.2 Technical specifications

Aero series	35	35+	42	42+	42XL	42XL+
<b>General</b>						
Ambient temperature during operation	5 to 30 °C	5 to 30 °C	5 to 30 °C	5 to 30 °C	5 to 30 °C	5 to 30 °C
Machine operating conditions: relative humidity (non-condensing)	10-90%	10-90%	10-90%	10-90%	10-90%	10-90%
Noise production	<70 dB(A)	<70 dB(A)	<70 dB(A)	<70 dB(A)	<70 dB(A)	<70 dB(A)
Maximum daily production	5 h/day	5 h/day	5 h/day	5 h/day	5 h/day	5 h/day
<b>Machine dimensions</b>						
Width	451 mm	451 mm	491 mm	491 mm	491 mm	491 mm
Length	543 mm	543 mm	523 mm	523 mm	613 mm	613 mm
Height	454 mm	454 mm	464 mm	464 mm	469 mm	469 mm
Weight	36 kg	41 kg	57 kg	61 kg	68 kg	72 kg
<b>Maximum product height</b>	150 mm	150 mm	180 mm		180 mm	
<b>Electrical connection</b>						
Voltage	*	*	*	*	*	*
Connected load	*	*	*	*	*	*
<b>Vacuum pump</b>						
Capacity	8 m <sup>3</sup> /h	16 m <sup>3</sup> /h	16 m <sup>3</sup> /h	21 m <sup>3</sup> /h	16 m <sup>3</sup> /h	21 m <sup>3</sup> /h
Oil	0.25 litres	0.3 litres	0.3 litres	0.5 litres	0.3 litres	0.5 litres
Type of synthetic oil	Foodmax Air 32	Foodmax Air 32	Foodmax Air 32	Foodmax Air 32	Foodmax Air 32	Foodmax Air 32
Ambient temperature range for synthetic oil	-10 to 40°C**	-10 to 40°C**	-10 to 40°C**	-10 to 40°C**	-10 to 40°C**	-10 to 40°C**

\*See machine plate.

\*\*If the temperature is outside this range, please contact your dealer.







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