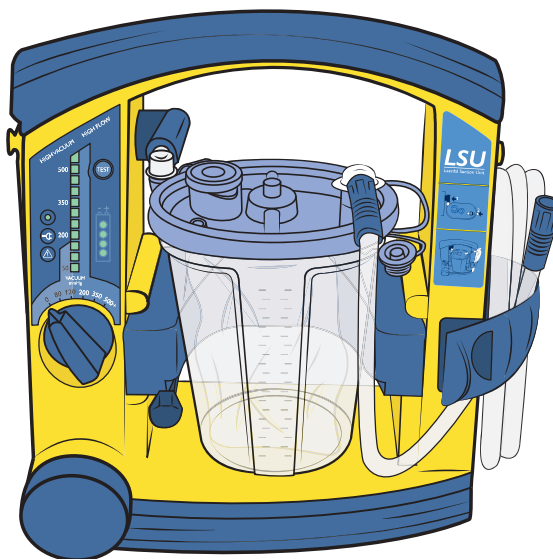


Laerdal Suction Unit Serres

Device Test Guide



LSU Serres Cat.no 78 00 30



Device Test

The Device Test is a user initiated test program to identify whether the LSU operates satisfactorily or if it needs service. If the device is not in frequent use (i.e. less than once a month), the Device Test should be performed both on a monthly basis and after each Cleaning and Assembly process.

The program runs 4 different tests:

1. Occlusions - Blockages in the Suction System, including canister and tubing.
2. Vacuum efficacy - How much vacuum builds up in the Pump System within 3 seconds.
3. Maximum vacuum level - The maximum achievable vacuum level of the LSU within 10 seconds.
4. Leakages - Air leakages in the Pump System, including canister and tubing.

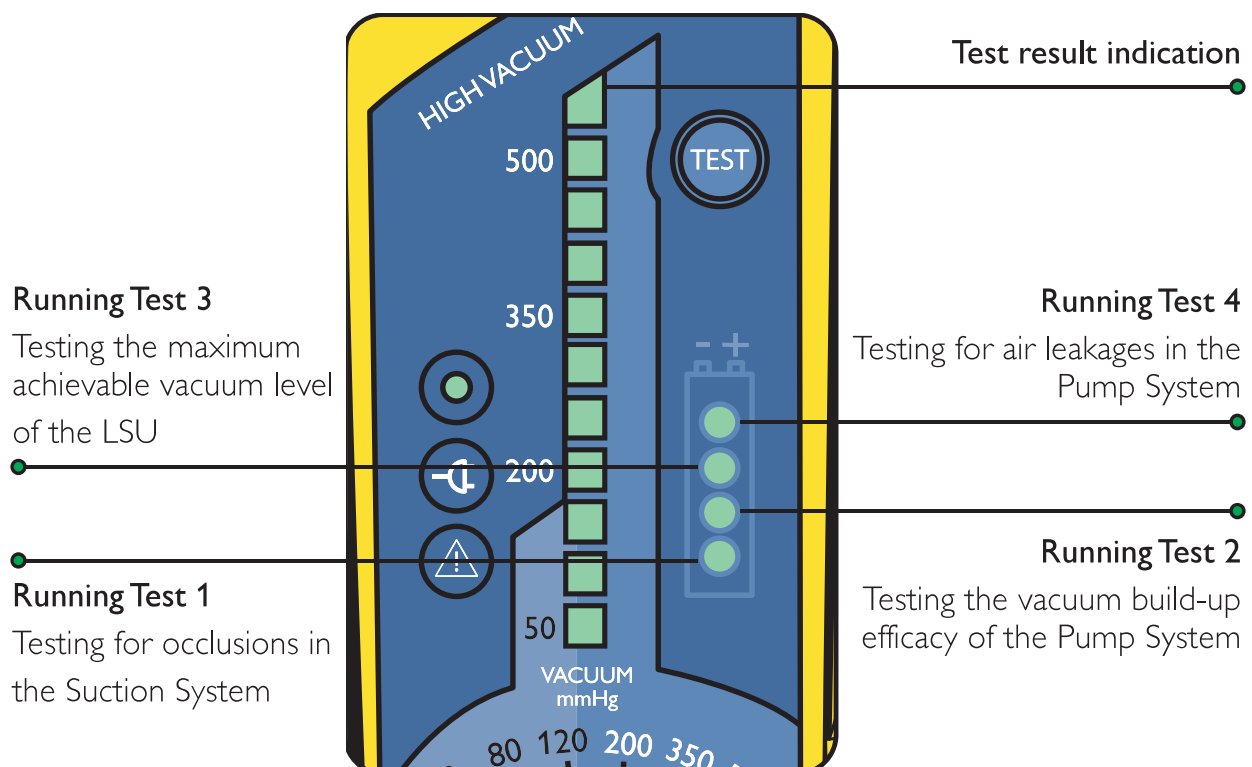
Before Device Test Checklist:

- Ensure the LSU is correctly assembled and the Patient Suction Tubing is unwound.
- The Suction Catheter Adapter is removed from its holder (if applicable).
- Ensure the battery is not being charged (the device is not connected to AC/DC power source).

Note

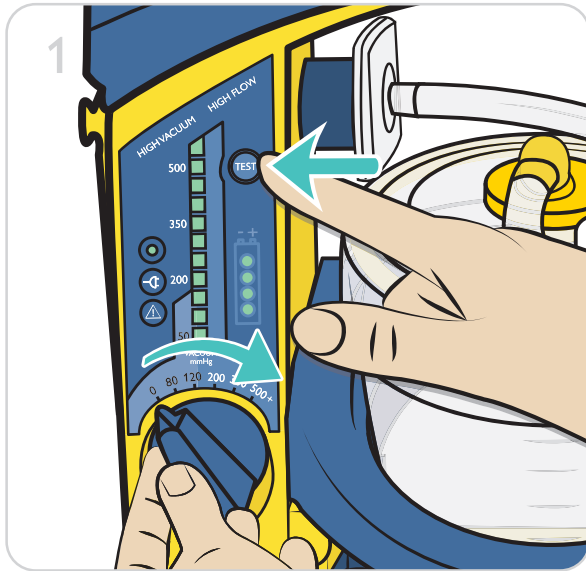
If you need to interrupt the test and revert to normal operation, turn the Operating Knob to another position and then select the required setting.

Device Test Indicators

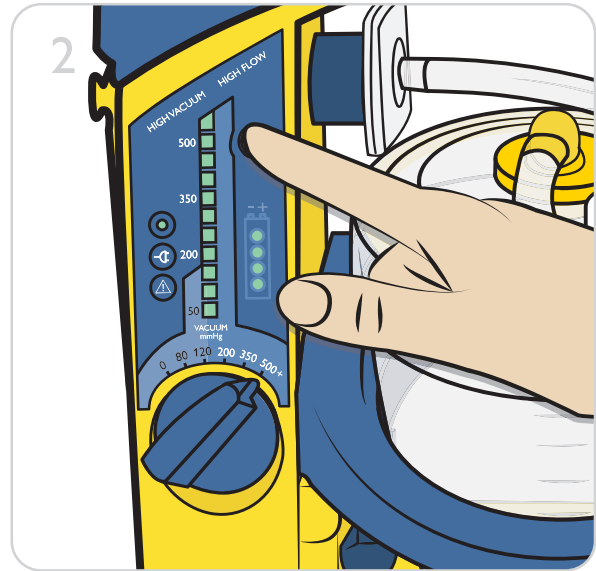


Device Test

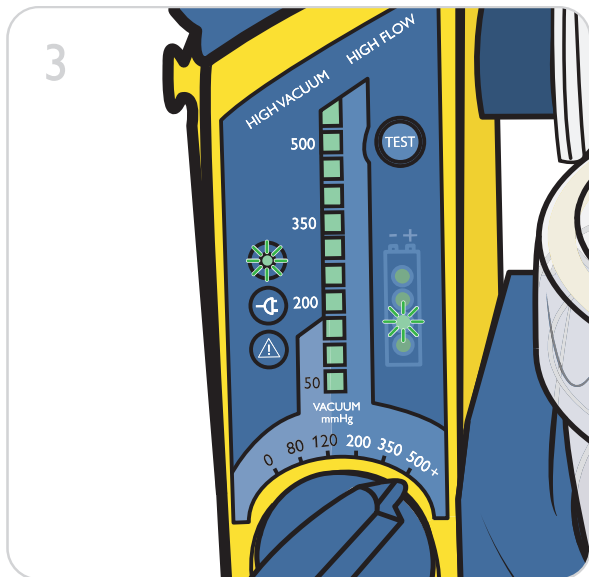
Run the Test



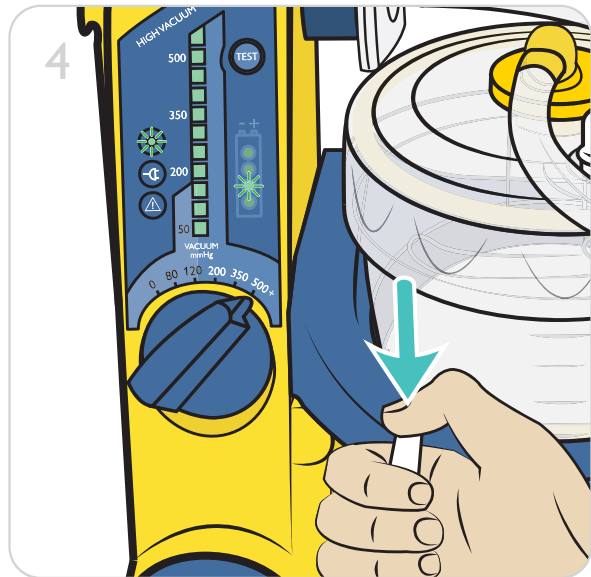
1. Press and hold the Test Button while turning the Operating Knob to 500+ mmHg.



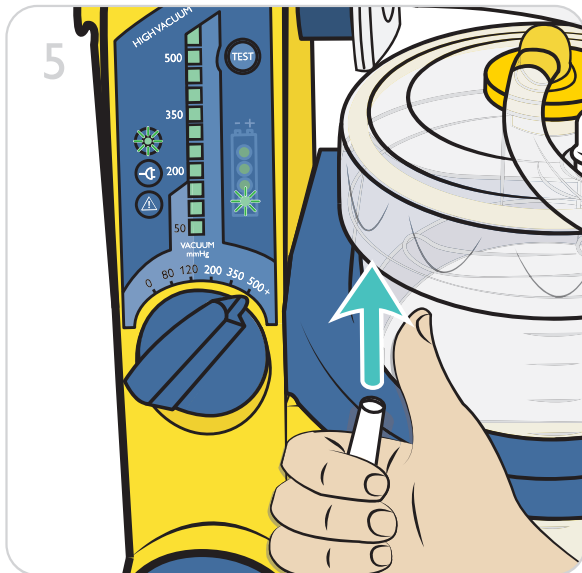
2. Hold the Test Button in for 2 seconds.



3. The test will start immediately. During test mode, the Power On Indicator will flash rapidly.



4. When LED 2 lights up, block the Patient Suction Tubing with your thumb.



5. Keep the tubing blocked while LED 2, 3 and 4 light up. Release the tubing when LED 1 lights up again.

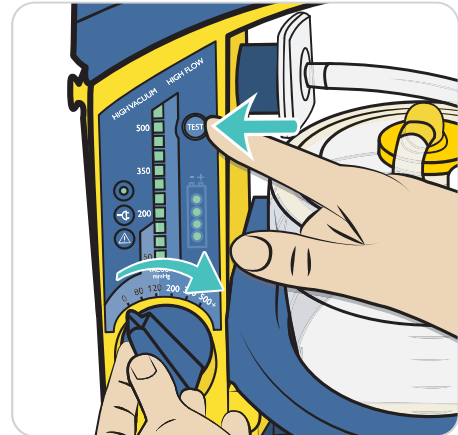
Notes


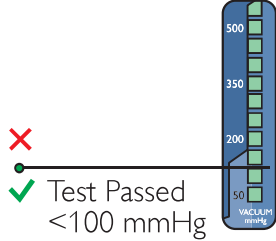

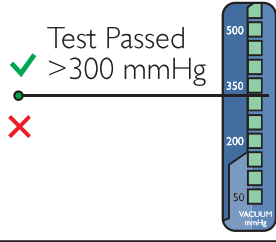

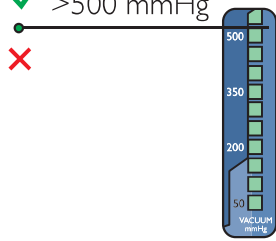

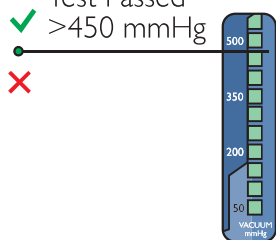
- If the tubing is not blocked within 2 minutes, the test will be interrupted. During interrupted device test, the Power On Indicator will flash slowly.
- To restart the test, set the Operating Knob to "0" and start over again.
- To evaluate test results, do not turn off the LSU after running Device Test.

Device Test

Evaluation of Device Test Results

After the test is completed, the Vacuum Indicator will display the results. Press the Test Button to scroll through the results of each test to display the results.



Test No.	Test result indication	Action if test failed
Test 1 - Occlusions 	 <p>Test Passed <100 mmHg</p>	<ul style="list-style-type: none"> Check possible blockages (e.g. twisted tubing, blocked filter, blocked filter in the liner) and run the Device. Test again. If the High Efficiency Filtration Kit is installed the pass limit is 150mmHg.
Test 2 – Vacuum efficacy 	 <p>Test Passed >300 mmHg</p>	<ul style="list-style-type: none"> Check Connectors, Tubes and Canister Lid for leakage* or damage. Check exhaust outlet for occlusion and run the Device Test again.
Test 3 – Maximum vacuum 	 <p>Test Passed >500 mmHg</p>	<ul style="list-style-type: none"> Check Connectors, Tubes and Canister Lid for leakage* or damage. Check exhaust outlet for occlusion and run the Device Test again.
Test 4 - Leakages 	 <p>Test Passed >450 mmHg</p>	Check Connectors, Tubes and Canister Lid for leakage* or damage and run the Device Test again.

After evaluating the test results turn the Operating Knob to "0" to exit the Device Test.

Troubleshooting for Leakages

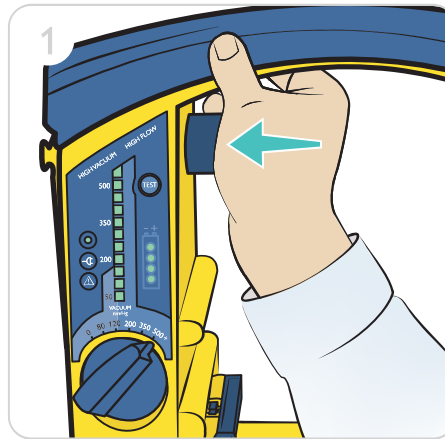
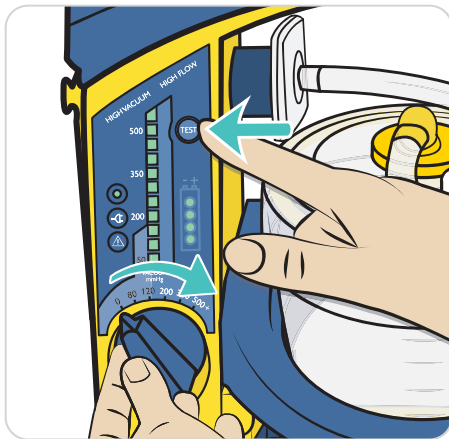
If the device test has failed, check whether the system is leaking. Run the Device Test at each step, until you find the failure.



Note

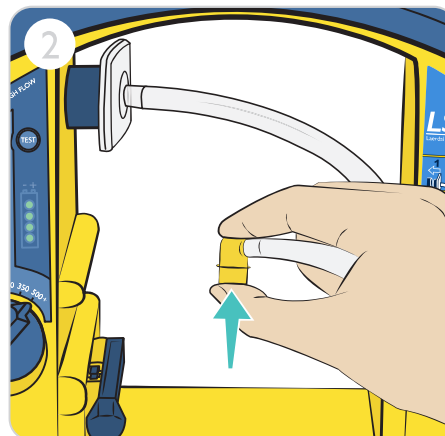
If the LSU does not pass one or more of the steps in this test after suggested actions are taken, the device might need to be returned for service (see the Troubleshooting guide).

Run the Test



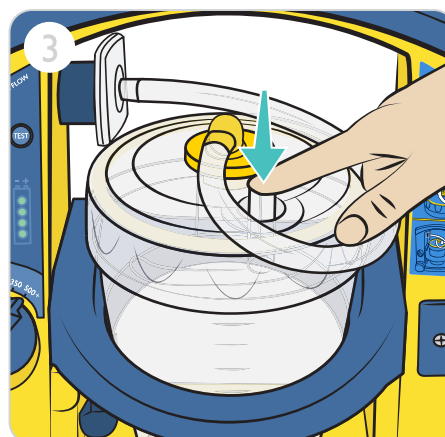
Test the Pump System

Run the Device Test whilst blocking the outlet. If the device passes the test, there are no leakages in the Pump System.



Test the Vacuum Tube

Run the Device Test whilst blocking the Vacuum Tube. If the device passes the test, there are no leakages in the Tube.



Test the Patient Tubing Inlet

Run the Device Test whilst blocking the Patient Tubing inlet on the Canister. If the device passes the test, there are no leakages in the Canister.