

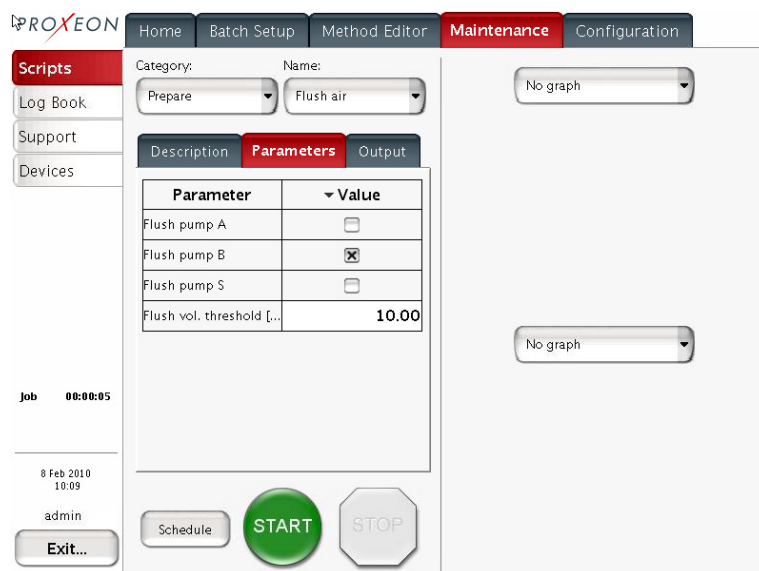
EASY-nLC™

Troubleshooting note

How to troubleshoot a pump failing Leak Test script

Rev.07-06-2010

1. Go to **Maintenance/Scripts/Prepare** and run **Flush Air** script for the relevant **Pump** with a **Flush Volume** of **10 μ L**. If the **Output** reports **Insufficient Backpressure**, refer to the **Troubleshooting Note** entitled **How to troubleshoot a pump failing Flush Air script**.

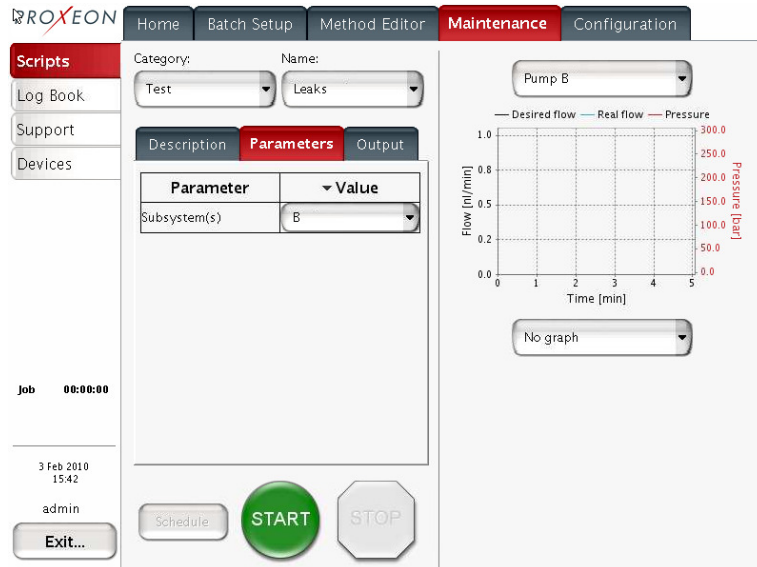


The screenshot shows the PROXEON EASY-nLC software interface. The top navigation bar includes Home, Batch Setup, Method Editor, Maintenance (selected), and Configuration. The left sidebar contains Scripts (selected), Log Book, Support, and Devices. The main area displays the 'Flush Air' script under the 'Prepare' category. The 'Parameters' tab is active, showing a table with the following data:

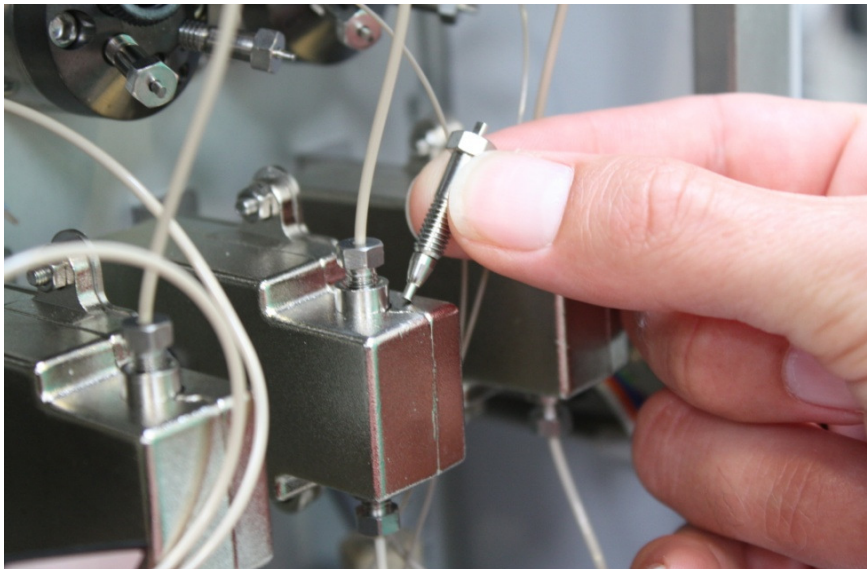
Parameter	Value
Flush pump A	<input type="checkbox"/>
Flush pump B	<input checked="" type="checkbox"/>
Flush pump S	<input type="checkbox"/>
Flush vol. threshold [...]	10.00

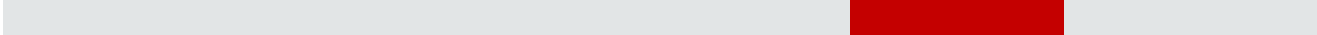
At the bottom, there are buttons for 'Schedule', 'START' (highlighted in green), and 'STOP'. The status bar at the bottom left shows 'Job 00:00:05', '8 Feb 2010 10:09', 'admin', and an 'Exit...' button. On the right side, there are two 'No graph' dropdown menus.

2. Go to **Maintenance/Scripts/Test/Leaks/Parameter** and select the relevant pump or both **A+B**.



3. If **Leaks** fails the leak is either in the **Pump**, **Valve** or **connecting lines/fittings**. Further troubleshooting can only occur when the script is completely finished.
4. Remove the **fitting** from the top of the relevant **pressure sensor**, and replace with a **LC223** blanking nut. Ensure this is fully tightened.



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5. Repeat the **Leaks** script, and then remove the **Blanking nut** and replace the original fitting, and assess the result of the script.
 - a. **Pass:** Indicates that piston seal is leak tight and leak is between **Pressure Sensor** and **Valve**. Continue to 6
 - b. **Fail:** Indicates that leak is between the **Pressure Sensor** and **Pump**. Continue to 7
 6. Confirm **fittings** between **Pressure Sensor** and **Valve** are leak tight. If no problems are identified then **replace** worn **rotor** and **clean** and if required, **replace stator**. Refer to **How to clean valve stator** and **How to replace a valve rotor and or a stator**.
 7. Confirm **fittings** between **Pump** and **Pressure Sensor** are leak tight. Then repeat **Leaks** script. If the result is **Fail** again, a worn piston seal might have been identified. Refer to **How to replace a piston seal**.