Academy Tech Tips

Testing Vacuum in a Harmony® e-pulse System / Updated Filter

**Losing vacuum in a Harmony e-pulse system? It could be the e-pulse itself, or in the tubing.**

Start your troubleshooting by testing the e-pulse for vacuum. To do this, isolate the e-pulse from the rest of the system and connect it directly to a 4R131 vacuum gauge. This way you can see if the e-pulse is generating the desired amount of vacuum and whether it is then holding vacuum, or losing it.

If the vacuum is holding when the e-pulse is isolated, the leak is not coming from the e-pulse. Once you've confirmed this, check the rest of the tubing in the system for holes or other damage that may have been caused by pinching or excessive wear. Even a small pin hole could cause a slow leak in the system.
Flow Chart
for Trouble Shooting Harmony® e-pulse

Follow the steps in the flow chart until you eliminate the leak.

System does not maintain vacuum: Examine Zone 1 (Socket)

Step 1: Seal the Socket Connector inside the Socket with a piece of paper and an airtight tape, then switch the pump on.

Pump maintains vacuum: Problem is the proximal socket seal (sealing sleeve, socket reduction, liner)

Pump does not maintain vacuum: Examine Zone 3 (Harmony® e-pulse)

Step 2: Block the intake tubing as close to the pump as possible, switch the pump on.

Pump does not maintain vacuum for at least 15 seconds:
Step 3: Make sure that the outtake tubing is not squeezed and that the outtake filter is not blocked (replace filter). Repeat Step 2

Pump does not maintain vacuum: Problem with the pump. Please call Otto Bock support staff.

Pump maintains vacuum: Examine Zone 2 (Filter & Connections)

Step 4: Remove filter from Socket Connector, seal it with a finger, test the pump.

Pump does not maintain vacuum:
Step 5: Fasten luer locks and repeat Step 4

Pump does not maintain vacuum:
Step 6: Check the filter for cracks and/or dirt inside (replace if necessary). Repeat Step 4

Pump does not maintain vacuum: Tubing between Harmony® e-pulse and filter is damaged.
Step 7: Check the tubing for damages inch by inch. Shorten the tubing to remove damaged area if possible or call Otto Bock support staff to replace the tubing.

Pump maintains vacuum: Problem with the Socket Connector.
Step 8: Damaged or does not seal at filter or socket. Re-attach/replace Socket Connector.
Product notification: Updated filter

If your Harmony e-pulse still uses the disposable Epidural filter, it can be replaced with this updated version (4X255). Make sure you attach the appropriate connector to the correct diameter tube.

If you have any further questions, please contact Ottobock at 800 328 4058 and ask to speak with a member of our Professional and Clinical Services department.