

REQUIRED TOOLS AND MATERIALS

Flat blade screwdriver
4 mm Allen wrench
Suction Pad (LLV-01100)
Sealing Gasket (Black)
Diagnostic Disc (if using Distal Mount pump)
Diagnostic Sheet (if using Side Mount pump)
Exhaust Port Drain Tube (included with LimbLogic)
50/50 mix of distilled water and isopropyl alcohol
Small container to catch expelled alcohol/water mix



Before beginning any system testing, please complete the following:

- **Charge the LimbLogic pump battery if necessary.**
- **Note the vacuum level and range settings, then set the Vacuum Set Point to 20 and the Vacuum Range to 4.**
- **Confirm that the intake hole in the socket has a diameter of 9/32" (7 mm).**
- **Reset the LimbLogic pump by pressing and holding the on/off button for about 12 seconds until the pump beeps.**

USING THIS GUIDE

If the pump responds normally after you complete the procedures in this guide, then reassemble the prosthesis and evaluate at the next scheduled appointment.

If the pump responds intermittently or not at all, contact WillowWood technical support.

WillowWood®

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WillowWood®

LimbLogic® Field Diagnostics



This guide is designed to assist in diagnostic testing of vacuum issues occurring after delivery of a definitive elevated vacuum socket system.

TEST A: INITIAL ASSESSMENT



Do not disassemble the prosthesis to perform this test.

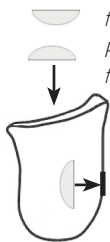
STEP A1

- Turn the pump on.
- Use Suction Pad to seal the intake hole on the inside of the socket.

Distal Mount:

Place dome side **down**
for laminated socket

Place dome side **up**
for thermoplastic sockets



Side Mount:

Place flat
side against
vacuum hole

- Observe vacuum readings via the fob, LimbLogic communicator, or LimbLogic App.
- Alternate sealing and unsealing; observe the response.

Result

If a vacuum level is observed and is steady when performing the test, then the pump is functioning correctly. No further action is required. (Note: the vacuum level may be higher than the Vacuum Set Point; this is normal.)

Otherwise, proceed to **Step A2**.

STEP A2

Look for issues with the liner, seal points, and socket fit that might make the pump respond intermittently.

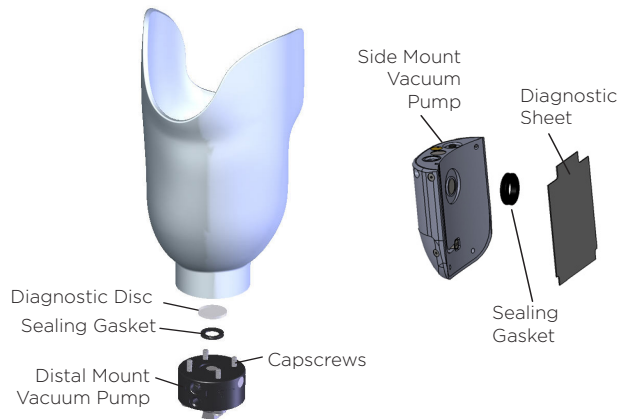
Result

If a vacuum level is not achieved, is not observed, or is intermittent, then remove the pump from the socket and proceed to **Test B**.

TEST B: BENCH-TESTING THE PUMP

STEP B1

- Place the pump in a clean area.
- Inspect the screen on the pump inlet. Remove any debris.
- Place the Sealing Gasket in the recess around the inlet to the pump.
- Place the Diagnostic Disc (if using a Distal Mount pump) or Diagnostic Sheet (if using a Side Mount pump) over the inlet and the gasket.
- Gently bolt the pump back onto the socket.
- Turn the pump on.
- Observe vacuum readings. Alternate sealing and unsealing; observe the response.



Result

Is a steady vacuum level achieved?

- **Yes:** proceed to **Step B2**.
- **No:** proceed to **Step B3**.

STEP B2

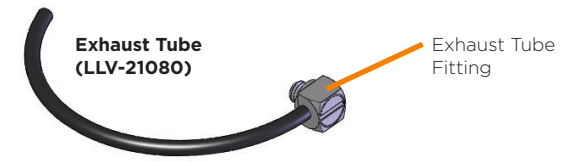
- Assess vacuum drill hole through socket.
- If necessary, drill hole out to 1/2" (12 mm), fill the hole with FabTech 60 Second Adhesive, and drill a new 9/32" (7 mm) hole in the center after the adhesive has cured. Assemble prosthesis and perform **Test A** again.

Result

If a vacuum level is not achieved, is not observed, or is intermittent, proceed to **Step B3**.

STEP B3

- Using a flat blade screwdriver, remove the Exhaust Tube Fitting from the pump. Do not lose the o-ring from the fitting. (Note: If vacuum level = 0, then inlet is clear.)
- Clear any clogs from the tube by running water or by gently blowing compressed air through the tube. If there is a clog that cannot be cleared, purchase a replacement Exhaust Tube from WillowWood.



- Repeat **Step B1**.

Result

If a vacuum level is not achieved, is not observed, or is intermittent, proceed to **Pump Flushing**.

PUMP FLUSHING



Do not flush the unit when it is assembled to the prosthesis.

- Connect one of the Exhaust Port Drain Tube to the pump, then place the other end in a container to catch the flushed fluid.
- Apply warm water (2 tbsps) to the proximal surface of the pump.
- Turn the pump on. Allow it to run until it enters Leak Mode, then turn the pump off. Repeat until all fluid has been expelled.
- Apply isopropyl alcohol (1 tbsps) to the proximal surface of the pump.
- Turn the pump on. Allow it to run until it enters Leak Mode, then turn the pump off. Repeat until all fluid has been expelled.
- Repeat **Step B1**.