

Troubleshooting

LED	Error Message	Help Screen
	 L Biosensor Disconnected 	Make sure biosensor tail is inserted then retest.
	 L Device Locked  	Excessive biosensor reuse detected. Device disabled. Call customer service.
	 L Device Malfunction 	Device has malfunctioned. Repeat test. Contact customer service if message persists.
	 L Excess Gel 	Remove probe gel and reapply, make sure that gel does not smear on skin between probes.
	 L Interference 	Check biosensor liner removed, patient leg and foot are relaxed. If message persists, reposition patient.
	 L Limb Not Confirmed 	Repeat test with correct limb selected.
	 L 22.5° C Patient Cold 	Warm patient's ankle to at least 24C/75F before repeating test. Tester should keep hand away from probes.

LED	Error Message	Help Screen
	 L Poor Probe Contact 	Reapply probe gel, allowing time for gel to absorb into the skin. Use consistent probe pressure during test.
	 L Poor Signal Quality 	Check biosensor liner removed. Repeat skin preparation, apply consistent pressure to device during test.
	 Replace Battery	
	 L Test Error 	An error has occurred. Repeat test.
	 L Upload Error 	Check cable fully inserted in both device and PC. Call customer service if message persists.
	Waiting for PC Application 	Connect DPNCheck to PC and open Reporter or Communicator.

DPNCheck® 2.0

Reference Guide

(Model: NC-040)



- Device Use
- Testing Protocol
- Test Results
- Troubleshooting

Always remember to perform the test away from electrical equipment that may cause interference.
If you continue to experience issues, please call Customer Service at 844.DPN.CHECK (844.376.2432)

Device Use



Step 1:
Position the patient so that the outer ankle and calf can be easily accessed then vigorously scrub the testing area with the prep pad.



Step 2:
Power on the device by pressing the power button. The display will prompt the user to Connect Biosensor.



Step 3:
Fully insert the biosensor into the port. Align the biosensor to the foam. The display will prompt user to select limb.

Tip: Align the biosensor with the foam on all sides; "REMOVE" label side faces up.



Tip: Both the outer ankle bone (lateral malleolus) and Achilles tendon should be easily accessible as shown at left. Please reference the User Manual for alternative patient positions.

The test area should be vigorously scrubbed with the Preparation Pad provided.



Step 7:
Locate the patient's outer ankle bone and Achilles tendon. The long probe should be placed behind the ankle bone, half way between the bone and the Achilles tendon.

Tip: The anode (short probe) and cathode (long probe) should be aligned to the outer ankle bone. The cathode should be adjacent to the middle (central prominence) of the ankle bone.

The probes should be placed behind but not over the outer ankle bone.



Step 8:
Align the device on the lower calf by pushing down firmly on the foam. The arrow closest to the midline of the calf should point to the back of the knee. When the arrow is pointing properly, the inner edge of the biosensor will then sit adjacent to the midline (Achilles tendon). Ensure that the entire biosensor and both probes are making full contact with the patient's skin.



Step 4:
Select the leg to be tested on the touch screen. Once selected, "Ready to Test" will be displayed followed by the limb that was selected. The back arrow allows you to return to the previous screen if needed.



Step 5:
Apply a small amount of conductive gel to each probe. The head of the probe should be covered with gel.

Tip: Remove excess gel that may lead to gel smearing between the two probes.



Step 6:
Remove the backing from the biosensor.



Step 9:
Press the button to start the test. The display will show "Testing". During the test the LED blinks green when each stimulus is delivered.

Maintain firm pressure on both the biosensor and the probes throughout the test. Test times may vary per patient but normally lasts for 10-15 seconds.

Tip: During test, maintain:
a.) Firm pressure on **probes**
b.) Firm pressure on **biosensor**
c.) **Steady** positioning



Step 10:
Once results are displayed the test is complete and the device may be removed from the leg.

Testing Protocol

1. Testing a single leg is usually clinically sufficient.
2. The test will provide a nerve conduction result the first time in most patients.
3. If the first test does not provide a result or to confirm the result, the test on the same limb should be repeated. Please see Appendix F for likely reasons if a test error occurs.

Tip: In certain circumstances it may be beneficial to confirm the results. Examples include:

- Confirm CV if amplitude is $\leq 4 \mu\text{V}$
- Confirm undetectable response
- Confirm result inconsistent with clinical findings
- If the leg setting on the device was incorrect, then the test should be repeated

4. If the repeat test does not provide a result or for further confirmation of the results, the opposite leg should be tested.

- The same biosensor may be used on both legs.

This protocol is intended only as a guide. It is the responsibility of the provider to determine the clinical necessity of nerve conduction testing.

Test Results

When the test is complete, the device will display the sural nerve conduction amplitude (Amp) in microvolts (μV) and the conduction velocity (CV) in meters per second (m/s).

In cases where the patient has low amplitude (between 0-4 μV) and the CV cannot reliably be reported, only the amplitude will display on the device. The amplitude alone may be used to interpret results.

