

Troubleshooting

Frequently Asked Questions

If you have any questions or concerns, please contact the NESS L300 Technical and Clinical Support Department at (800) 211-9136, Option 3.

Our clinic owns multiple NESS L300 systems. How can we identify which components belong to which system?

- Each NESS L300 system has an alphanumeric System Identification (ID) Number (for example, A123) printed on the back of the Control Unit, RF Stim Unit, and Gait Sensor. The System ID Numbers on all three components must match for the system to work. Check the ID numbers before use to see if they match.

The buttons in the Intelli-Gait Software used to create a new patient record or adjust the settings for a current patient are grayed out and nonfunctional.

- The Clinician's Programmer and the Control Unit are not communicating. Both must be connected to the Configuration Cradle communication connector cable to communicate. Turn off the Control Unit or place it in standby mode. Then reconnect the Configuration Cradle communication connector cable to the Control Unit and the Clinician's Programmer.

I connected the Control Unit to the Configuration Cradle and a message appeared on the Clinician's Programmer. The message says that the date and time in the Control Unit differ from those in the Clinician's Programmer.

- The clocks on the Control Unit and Clinician's Programmer must be synchronized for the Gait Log and Training Log to record accurately.
 - » If the date and time settings of the Clinician's Programmer are correct, update the L300 clock.
 - » If the date and time settings of the Clinician's Programmer are not correct, press **Exit** to close the Intelli-Gait Software and open the PDA settings screen. (See the PDA manufacturer's instructions.) Use the stylus to adjust the Clinician's Programmer time zone, clock, and date. Press **Ok** to save the settings. Log back into the Intelli-Gait Software, reconnect the Control Unit, and update the L300 clock to match the Clinician's Programmer clock.



I connected the Control Unit to the Configuration Cradle, and a message appeared on the Clinician’s Programmer. The message says that a new patient was found and asks if I would like to add this record to the database.

- Select **Yes**, if you want to review or make changes to the patient’s settings. If not, select **No** to return to the Patients List. Then, with the Control Unit still connected to the Configuration Cradle, you can open another patient record or set up a new patient record for use with the Control Unit.

When I connected the Control Unit to the Configuration Cradle, a message appeared on the Clinician’s Programmer saying that the parameters are inconsistent.

- A different Clinician’s Programmer was last used to update the patient’s system.
 - » Press **L300** → **DB** to overwrite the data on the Clinician’s Programmer with the data on the Control Unit (preferred when patients have been using the Control Unit settings and are returning for a follow-up evaluation).
 - » Press **DB** → **L300** to overwrite the parameters on the Control Unit with the parameters on the Clinician’s Programmer.
 - » Press **Ignore** to leave the parameters on the Clinician’s Programmer and the Control Unit unchanged.

When charging the L300, how will I know when the batteries are fully charged?

- When the Control Unit is fully charged, a  horizontal GREEN line will appear in the Control Unit digital display.
- When the RF Stim Unit is fully charged, the  status light on the RF Stim Unit will be solid GREEN.
- Charging takes approximately three hours. Once the components are fully charged, you may keep the components connected to the system charger set.

After I fully charged the Control Unit and RF Stim Unit, I disconnected the system charger set and then immediately reconnected it. The charging icons displayed again on the Control Unit and RF Stim Unit. Do I need to repeat the charging process?

- If you just charged your system and the fully charged icons were displayed, your system is still fully charged. You do not have to repeat the charging process.

If I charge the L300 every day, will I harm the batteries?

- No. Daily charging will not affect the lifespan or functionality of the batteries. Daily charging is recommended.

While charging the Control Unit and RF Stim Unit,  "E" appears in the digital display.

- An error occurred while charging. Reconnect the system charger set. If the problem persists, contact Bioness.

The Control Unit (or RF Stim Unit) does not light up when turned on.

- The battery needs to be charged. Charge the battery. If the problem persists, contact Bioness.

How will I know when the Gait Sensor battery charge level is low?

- A Gait Sensor battery will last for approximately six months, and then it will need to be replaced. When the Gait Sensor battery charge level is low, the Gait Sensor indicator on the Control Unit will flash YELLOW and the Control Unit will emit an audio alert. The audio alert will become more persistent as the battery weakens.





Stimulation works in training mode but not in gait mode. When I turn on gait mode I hear a beep, the RF Stim Unit and Gait Sensor indicators on the Control Unit alternately flash RED, and "E" flashes in the digital display.

- The Gait Sensor and RF Stim Unit are not communicating. The Gait Sensor is probably hibernating. Apply pressure to the Gait Sensor pressure sensor. If pressure does not resolve the problem, the battery may be depleted or the Gait Sensor may be faulty. If no wire issues are apparent, replace the Gait Sensor battery and try again.



When I turn on the Control Unit, it beeps, the Control Unit and RF Stim Unit indicators alternately flash RED, and "E" flashes in the digital display. The RF Stim Unit indicators are not lit.

- The RF Stim Unit battery is likely discharged, preventing the Control Unit and RF Stim Unit from communicating. Turn off the Control Unit, and charge the Control Unit and RF Stim Unit fully. Then, disconnect the system charger set and turn on the Control Unit. The Control Unit  on/off button and the  status light on the RF Stim Unit should flash GREEN. Communication should be restored.



I hear a beep, the RF Stim Unit indicator on the Control Unit flashes RED, and the stimulation intensity level flashes in the Control Unit digital display.

If the patient feels stimulation but the intensity level seems weaker than usual and ankle movement is unsatisfactory, electrode contact may be compromised.

- Turn off the Control Unit and remove the FS Cuff.
- Thoroughly cleanse the skin, removing dead cells and oils.
- If using hydrogel electrodes, remove and replace the worn electrodes. Press firmly on the new electrodes until they are securely attached to the electrode bases. Then, remove the covers.
- If using cloth electrodes, remove the cloth electrodes and wet them with water until saturated. Blot the snap side of the electrodes before re-adhering them to the electrode bases.
- Replace hydrogel and cloth electrodes every two weeks.

If the patient does not feel stimulation:

- Turn off the Control Unit and remove the FS Cuff.
- For hydrogel electrodes, confirm that the covers have been removed.
- For cloth electrodes, remove and wet the cloth electrodes, if they are dry.
- Make sure the RF Stim Unit is properly snapped into the cradle on the FS Cuff. Press firmly near the upper edges of the RF Stim Unit until it is flush with the cradle.
- Make sure the electrode bases are snapped into the plug holes of the FS Cuff, especially if using a fitting panel.
- If using a fitting cable, check that the cable is correctly connected to both plug holes of the FS Cuff and to both electrode bases.
- Use the L300 Tester to test the electrical flow.

The electrodes or electrode bases are frayed, peeling, damaged, or falling off the FS Cuff.

- Replace any worn or damaged electrodes or electrode bases.



One of the component indicators is solid RED, an "E" appears in the digital display, and the Control Unit beeps.

- The component is malfunctioning. Turn off the Control Unit and turn it back on. If the problem persists, then stop using the NESS L300 and contact Bioness.



One of the component indicators is flashing YELLOW.

- The component battery charge level is low. Charge or replace the battery.

The patient's ankle is not moving (or the foot does not lift satisfactorily), and the system is not indicating any errors.

- Turn off the Control Unit and reposition the FS Cuff. Make sure the FS Cuff strap is snug and the FS Cuff is secure.

Stimulation is inconsistent when the patient is walking, but the system is not indicating any errors.

- Have the patient stop walking and shift weight from side to side. If the problem persists, check for proper placement of the pressure sensor, reposition the pressure sensor slightly forward in the shoe, or loosen the shoelace, if it is tight. Also, check the Gait Sensor wires for wear or fraying, and check the transmitter and pressure sensor for damage.







The skin is irritated or has a skin reaction where the electrodes or FS Cuff adheres.

- Stop using the NESS L300 immediately and contact Bioness. Resume use only when the skin is completely healed. Give patients the NESS L300 Skin Care Guidelines and a skin conditioning protocol.

I received a replacement component and was told I need to "register" it. Why is registration important, and how do I register a component?

- A replacement Control Unit, RF Stim Unit, or Gait Sensor needs to be electronically registered to the other components in the system to communicate wirelessly. To register a component, see the *L300 User's Guide*.

I tried the registration procedure and saw a  "C" immediately, but I never saw the alternating GREEN arches in the digital display. The replacement component is not working.

- Clinician mode (for use by clinicians only) may have been started instead of the registration process. Clinician mode is started by pressing the minus  and  on/off buttons on the Control Unit. Registration is started with the Control Unit off, and then by pressing the minus  and mode  buttons on the Control Unit. Turn off the Control Unit, and press the  minus and  mode buttons to restart the registration process.

How can I verify that current is flowing through the L300?

Connect the L300 Tester to the RF Stim Unit, the FS Cuff plug holes, or the ends of the fitting cable, depending on the setup. The L300 Tester will buzz when stimulation intensity is at least 10 mA.






What else can I use the L300 Tester for?

- The L300 Tester can be used as an educational tool, to demonstrate when stimulation is on in the various stimulation modes.




Using the L300 Tester

The L300 Tester provides audio feedback when connected to the NESS L300 and stimulation is applied.

Testing in Training Mode

1. Connect the L300 Tester to the FS Cuff. See Figure 84.
2. Press the Control Unit  on/off button to turn on the system.
3. Press and hold the  mode button until the Control Unit beeps, the  mode button starts flashing YELLOW SLOWLY (indicating that stimulation is off), and  (“t” for training) alternates with the intensity level in the digital display. When stimulation is on, the  mode button will flash YELLOW RAPIDLY.
4. You should hear a buzzing when stimulation is on and no buzzing when stimulation is off.

Testing in Gait Mode

1. Connect the L300 Tester to the FS Cuff.
2. Press the Control Unit  on/off button to turn on the system.
3. Press the  mode button briefly to enter gait mode. The Control Unit will beep and the  mode button will flash YELLOW SLOWLY (indicating that stimulation is off).
4. Press and release the pressure sensor on the Gait Sensor. You should hear a buzzing when you release the pressure from the pressure sensor and no buzzing when you press on the pressure sensor.

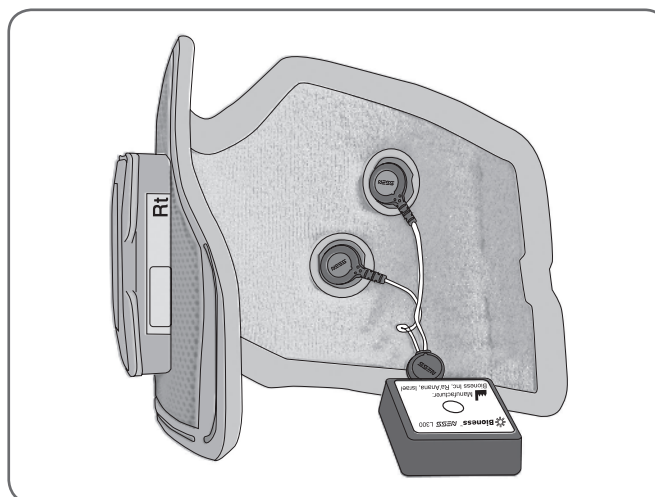


Figure 84: L300 Tester connected to the FS Cuff.

If either of the above steps elicits an error indication, test using the advanced testing procedures.

Advanced Testing

Note: If stimulation is not delivered to the patient's leg, a "faulty electrode contact" error may appear. After you have rechecked that the electrode base snaps are secured to the plug holes of the FS Cuff and that the RF Stim Unit is fully snapped into the FS Cuff cradle, use the L300 Tester to differentiate among problems in the RF Stim Unit, FS Cuff, and electrode bases using a process of elimination. Follow the steps below to determine which component may be faulty.

Step 1: Test the FS Cuff:

1. Connect the L300 Tester to the FS Cuff. See Figure 85.

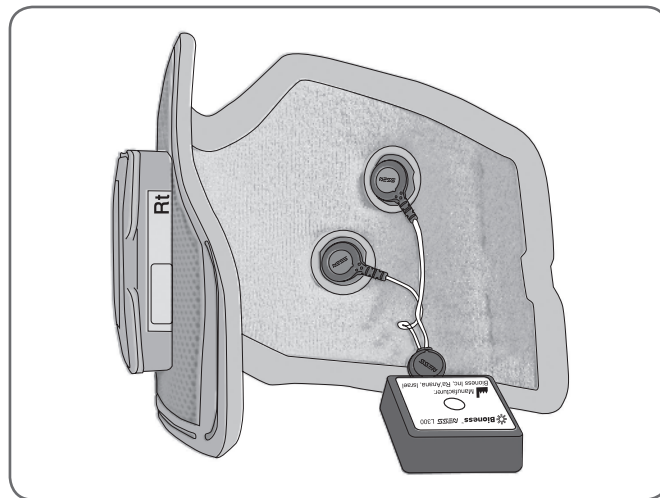


Figure 85: L300 Tester connected to the FS Cuff.

2. Apply stimulation using the Control Unit in clinician mode or by using the Clinician's Programmer. The minimum intensity required to produce a sound is 10 mA.
3. If the circuit is intact in the FS Cuff and the RF Stim Unit is working properly, the L300 Tester will buzz. If the patient was not feeling stimulation while the FS Cuff was donned, the problem may be in the electrode bases. If this is the case, replace the electrode bases and electrodes.
4. If the L300 Tester does not buzz, then you need to determine whether the fault is in the FS Cuff or the RF Stim Unit. This can be verified by connecting the L300 Tester directly to the RF Stim Unit.

Step 2: Test the RF Stim Unit:

1. Remove the RF Stim Unit from the FS Cuff cradle. See Figure 86.

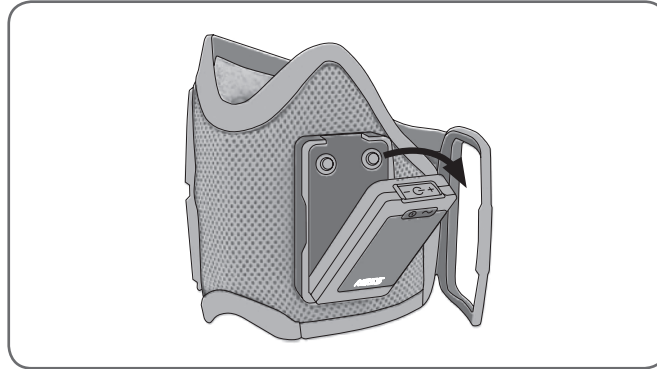


Figure 86: Removing the RF Stim Unit.

2. Connect the L300 Tester to the electrical sockets on the back of the RF Stim Unit. See Figure 87.
3. Apply stimulation using the Control Unit in clinician mode or by using the Clinician's Programmer. The minimum intensity required to produce a sound is 10 mA.
4. If the RF Stim Unit is working, the L300 Tester will buzz, indicating that the problem may be in the FS Cuff. Replace the FS Cuff.
5. After replacing the FS Cuff, connect the RF Stim Unit to the new FS Cuff, repeat the test sequence from "Step 1: Test the FS Cuff".
6. If the L300 Tester does not buzz, the RF Stim Unit may be faulty. Replace the RF Stim Unit or contact Bioness Inc.



Figure 87: L300 Tester connected to the RF Stim Unit.

Troubleshooting Quick Reference Table

Control Unit	Solution
Will not turn on	Charge the Control Unit
	Change the battery and charge the Control Unit
	Replace the Control Unit and register it
Component malfunction	Replace the Control Unit and register it
RF Stim Unit	Solution
Will not turn on	Charge the RF Stim Unit
	Charge the RF Stim Unit or contact Bioness Inc to replace the battery
	Replace the RF Stim Unit and register it
Component malfunction	Replace the RF Stim Unit and register it
Intelli-Sense Gait Sensor	Solution
Communication error	Press and release the pressure sensor while in gait mode to activate the Gait Sensor
	Change the battery, and press the pressure sensor to activate the Gait Sensor
	Replace the Gait Sensor and register it
Will not function	Change the battery, and press the pressure sensor to activate the Gait Sensor
	Replace the Intelli-Sense Gait Sensor and register it
Functioning but not reliably	Relocate the pressure sensor to the correct placement under the heel, and replace the Gait Sensor pad, if it appears worn
	Replace the Gait Sensor and register it

FS Cuff	Solution
The Control Unit is displaying a faulty electrode connection	Ensure good contact of the electrode to the skin and base, and ensure that the FS Cuff connections are intact
An electrode is damaged or peeling off	Replace the electrode
An electrode base is damaged	Replace the electrode base
The FS Cuff strap is frayed or damaged	Replace the FS Cuff strap
The FS Cuff is damaged.	Replace the FS Cuff
Clinician's Programmer	Solution
Will not turn on	Charge the Clinician's Programmer
	Change the battery and charge the Clinician's Programmer
	Press the Clinician's Programmer reset button
	Replace the Clinician's Programmer
Lost the Intelli-Gait application/ data	Contact Bioness Inc
Will not communicate with the Control Unit	Reconnect the communication connector cable of the Configuration Cradle to the Clinician's Programmer and Control Unit
	Contact Bioness Inc