

NESS L300 Plus System Kits

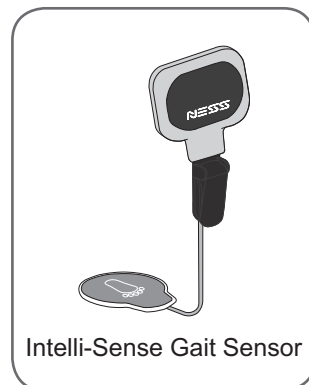
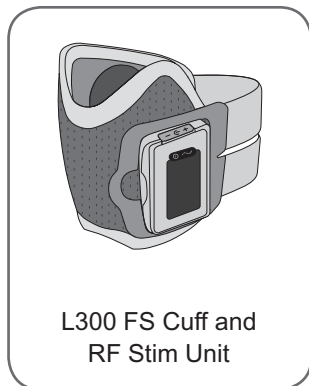
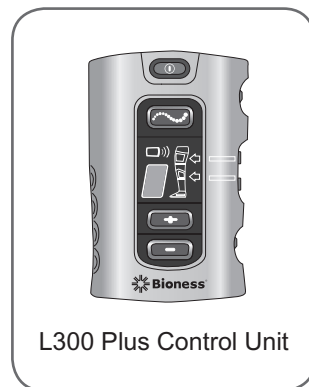
NESS L300 Plus System Kit

System Components

- L300 Plus Control Unit
- L300 FS Cuff and RF Stim Unit
- Thigh FS Cuff and RF Stim Unit
- Intelli-Sense Gait Sensor

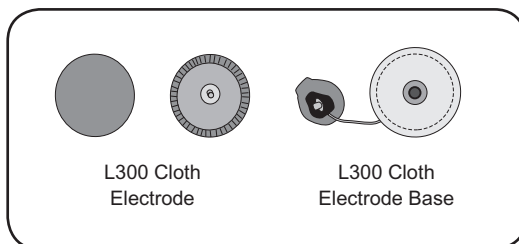
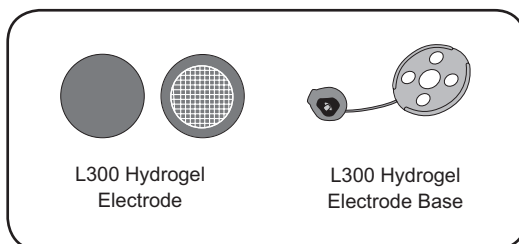
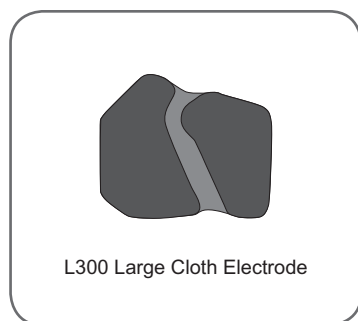
Accessories

- System Charger Set
- Control Unit Neck Strap
- Control Unit Wrist Strap
- Control Unit Belt Pouch



- Replacement Battery, Gait Sensor
- Gait Sensor Pads
- Shoe Spacers
- Thigh Elongation Bar Locks
- Thigh Electrode Marking Rings
- Large Cloth Electrode*
- L300 Hydrogel Electrodes and Bases*
- L300 Cloth Electrodes and Bases*
- Thigh Cloth Electrodes
- Cloth Electrode Mesh Bag
- Carrying Case
- L300 Plus *User's Guide*
- User's Reference Card

**One L300 electrode type included, as determined by your clinician.*



NESS L300 Plus System Upgrade Kit

The NESS L300 Plus System Upgrade Kit is for individuals who have a NESS L300 Foot Drop System.

System Components

- L300 Plus Control Unit
- Thigh FS Cuff and RF Stim Unit

Accessories

- System Charger Set
- Thigh Elongation Bar Locks
- Thigh Electrode Marking Rings
- Thigh Cloth Electrodes
- Carrying Case
- Control Unit Neck Strap
- Control Unit Wrist Strap
- Control Unit Belt Pouch
- Cloth Electrode Mesh Bag
- L300 Plus *User's Guide*
- User's Reference Card

IMPORTANT! Bring your NESS L300 Foot Drop System to your L300 Plus fitting session.

NESS L300 Plus System

L300 Functional Stimulation (FS) Cuff

The L300 FS Cuff fits on the affected leg below the knee. See Figure 5-1. The L300 FS Cuff is designed to facilitate dorsiflexion of the foot. It is lightweight, easy to put on with one hand, and can be worn under loose clothing.

The L300 FS Cuff features a radio frequency (RF) stimulation unit that communicates wirelessly with the L300 Plus Control Unit and Intelli-Sense Gait Sensor.

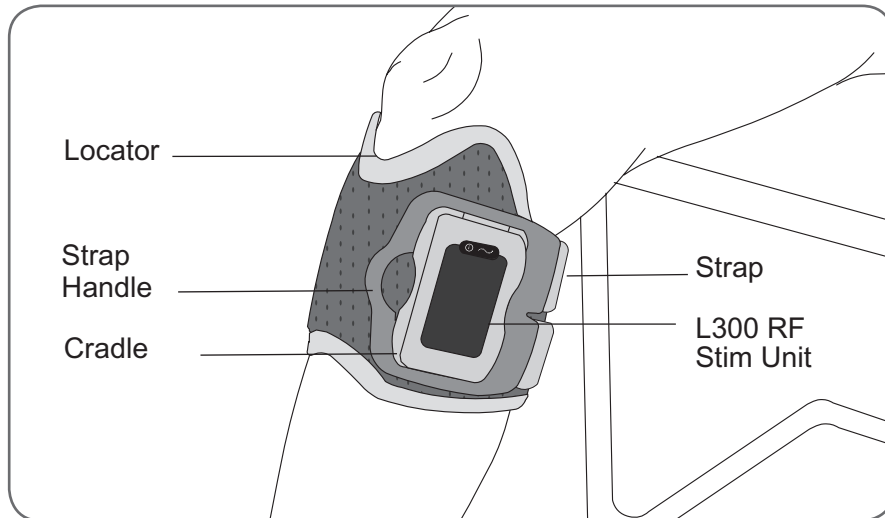


Figure 5-1: L300 FS Cuff.

Locator

The locator fits under the kneecap of the affected leg. The locator is used to accurately place the L300 FS Cuff on the leg, and to ensure repeatable electrode contact.

Cradle

The cradle holds the L300 RF Stim Unit. The L300 RF Stim Unit snaps in and out of the cradle.

Note: The L300 RF Stim Unit should only be removed for maintenance and when cleaning the L300 FS Cuff.

Strap

The L300 FS Cuff strap is adjustable and has a flexible handle, which fits over the cradle to fasten.

L300 Electrodes and Electrode Bases

The following electrodes may be used with the L300 FS Cuff:

- Large Cloth Electrode, L300 systems.
- L300 Hydrogel Electrodes and Hydrogel Electrode Bases.
- L300 Cloth Electrodes and Cloth Electrode Bases.

The electrodes attach to the inside of the L300 FS Cuff. Your clinician will determine the type of electrodes most appropriate for you and then fit the electrodes to your L300 FS Cuff.



CAUTION: Do not wear the L300 FS Cuff without electrodes.

L300 RF Stim Unit

The L300 RF Stim Unit generates the electrical stimulation used to dorsiflex the foot. It responds to wireless signals from the L300 Plus Control Unit and the Intelli-Sense Gait Sensor to turn stimulation on/off.

The L300 RF Stim Unit includes a status light, a stimulation light, and a rechargeable battery. The battery charging port is located at the top of the L300 RF Stim Unit, under the flexible cover. See Figure 5-2.

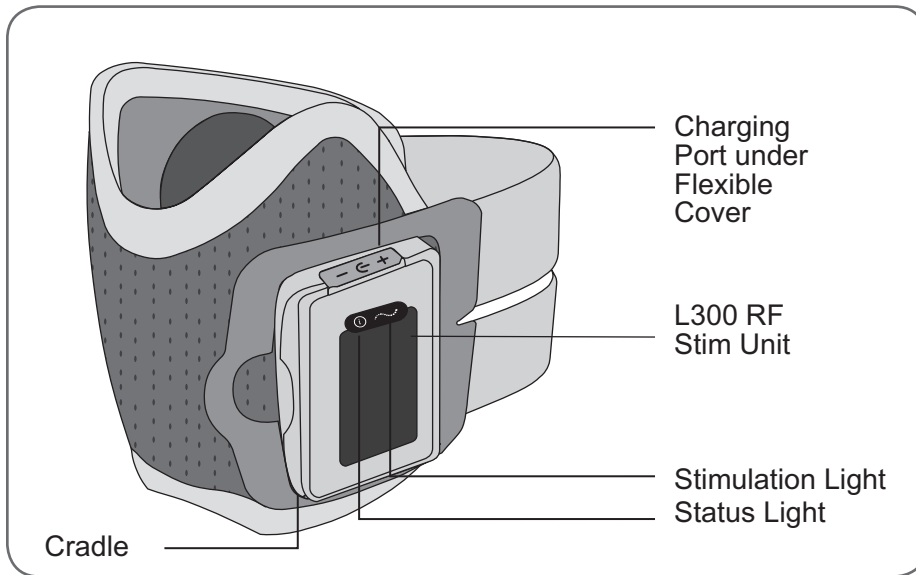


Figure 5-2: L300 RF Stim Unit.

The L300 RF Stim Unit emits visual and/or audio alerts when:

- Stimulation is on.
- RF communication with the L300 RF Stim Unit fails.
- The L300 RF Stim Unit battery charge level is low.
- The L300 RF Stim Unit battery is charging.
- The L300 RF Stim Unit malfunctions. See Table 5-1.

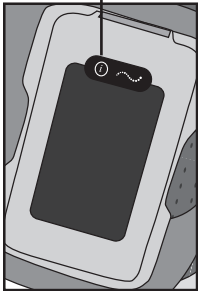









| L300 RF Stim Unit | Display | Description | Definition |
|---|---|--------------------------------------|--------------------------|
| <p>Status Light</p>  |  | FLASHES GREEN | System is On |
| |  | FLASHES YELLOW | Low Battery |
| |  | ALTERNATELY FLASHES YELLOW and GREEN | Battery Charging |
| |  | SOLID GREEN | Battery Fully Charged |
| |  | FLASHES RED | RF Communication Failure |
| |  | SOLID RED | Malfunction |
| <p>Stimulation Light</p>  |  | FLASHES YELLOW SLOWLY | Stimulation is Off |
| |  | FLASHES YELLOW RAPIDLY | Stimulation is On |

Table 5-1: L300 RF Stim Unit displays.

Thigh FS Cuff

The Thigh FS Cuff is a lightweight, low-profile orthosis designed to assist with knee flexion or extension. See Figure 5-3. The Thigh FS Cuff fits above the affected knee, centered on the back or front of the thigh.

The Thigh FS Cuff features an RF stimulation unit that communicates wirelessly with the L300 Plus Control Unit and Intelli-Sense Gait Sensor.

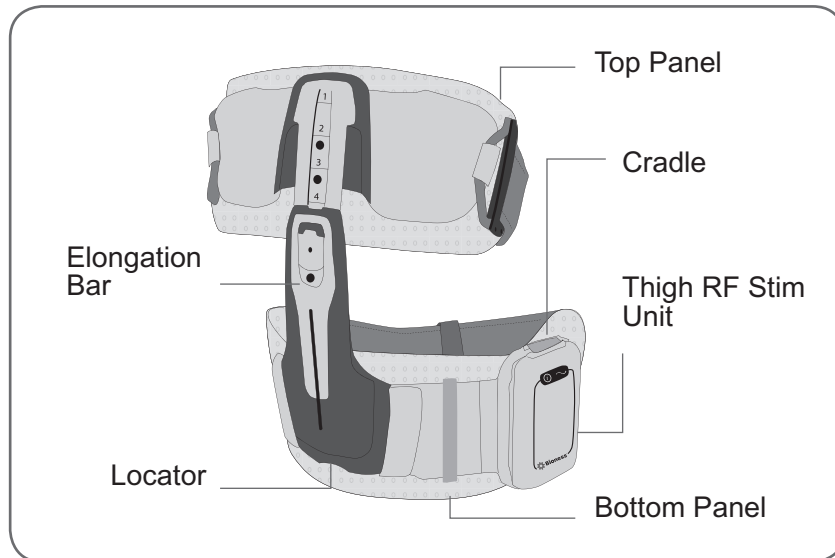


Figure 5-3: Thigh FS Cuff.

Panels

The Thigh FS Cuff features two panels. The top panel fits higher on the thigh. The bottom panel fits lower on the thigh. The bottom panel has a cradle for the Thigh RF Stim Unit.

Elongation Bar

The elongation bar connects the top and bottom Thigh FS Cuff panels. Your clinician will adjust the elongation bar and lock it.

Locator

The Thigh FS Cuff locator should rest on the center of the thigh, three finger widths from the knee of the affected leg. The locator is used to accurately place the Thigh FS Cuff on the leg, and to ensure repeatable electrode contact.

Cradle

The cradle holds the Thigh RF Stim Unit. The Thigh RF Stim Unit snaps in and out of the cradle.

Note: The Thigh RF Stim Unit should only be removed for maintenance and when cleaning the Thigh FS Cuff.

Thigh Cloth Electrodes

The Thigh FS Cuff uses two cloth electrodes to provide electrical stimulation. The large Thigh cloth electrode snaps to the Thigh FS Cuff top panel. The small Thigh cloth electrode snaps to the Thigh FS Cuff bottom panel. See Figure 5-4.

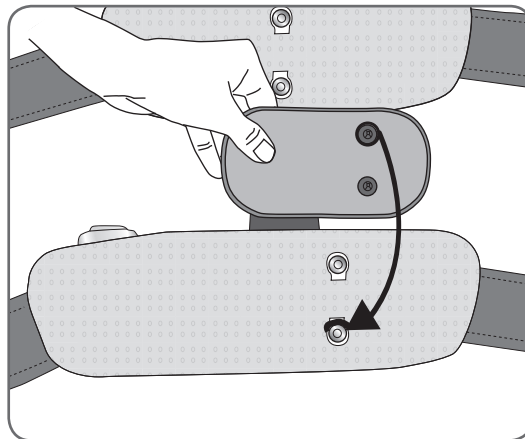


Figure 5-4: Snapping the small Thigh cloth electrode to the bottom panel.



CAUTION: Do not wear the Thigh FS Cuff without the cloth electrodes.

Thigh RF Stim Unit

The Thigh RF Stim Unit generates the electrical stimulation used to flex or extend the knee. It responds to wireless signals from the L300 Plus Control Unit and the Intelli-Sense Gait Sensor to turn stimulation on/off.

The Thigh RF Stim Unit includes a status light, a stimulation light, and a rechargeable battery. See Figure 5-5. The battery charging port is located at the top of the Thigh RF Stim Unit, under the flexible cover.

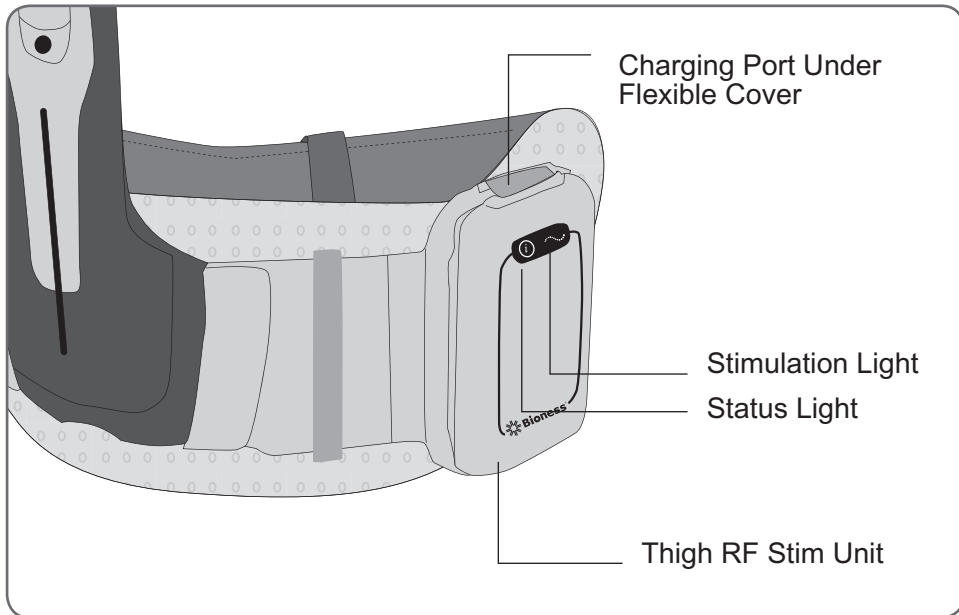


Figure 5-5: Thigh RF Stim Unit.

The Thigh RF Stim Unit emits visual and/or audio alerts when:

- Stimulation is on.
- RF communication with the Thigh RF Stim Unit fails.
- The Thigh RF Stim Unit battery charge level is low.
- The Thigh RF Stim Unit battery is charging.
- The Thigh RF Stim Unit malfunctions. See Table 5-2.

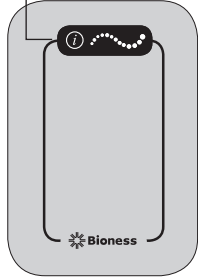









| Thigh RF Stim Unit | Display | Description | Definition |
|---|---|--------------------------------------|--------------------------|
| Status Light  |  | FLASHES GREEN | System is On |
| |  | FLASHES YELLOW | Low Battery |
| |  | ALTERNATELY FLASHES YELLOW and GREEN | Battery Charging |
| |  | SOLID GREEN | Battery Fully Charged |
| |  | FLASHES RED | RF Communication Failure |
| |  | SOLID RED | Malfunction |
| Stimulation Light  |  | FLASHES YELLOW SLOWLY | Stimulation is Off |
| |  | FLASHES YELLOW RAPIDLY | Stimulation is On |

Table 5-2: Thigh RF Stim Unit displays.

L300 Plus Control Unit

The L300 Plus Control Unit is used to:

- Turn on/off the NESS L300 Plus System.
- Test the position of the FS Cuffs.
- Select an operating mode (gait, training, or standby).
- Fine-tune stimulation intensity.
- Mute/un-mute system audio alerts.
- Turn off visual alerts.
- Turn on/off audio feedback during stimulation.
- Monitor system status. See Figure 5-8 and Table 5-3.

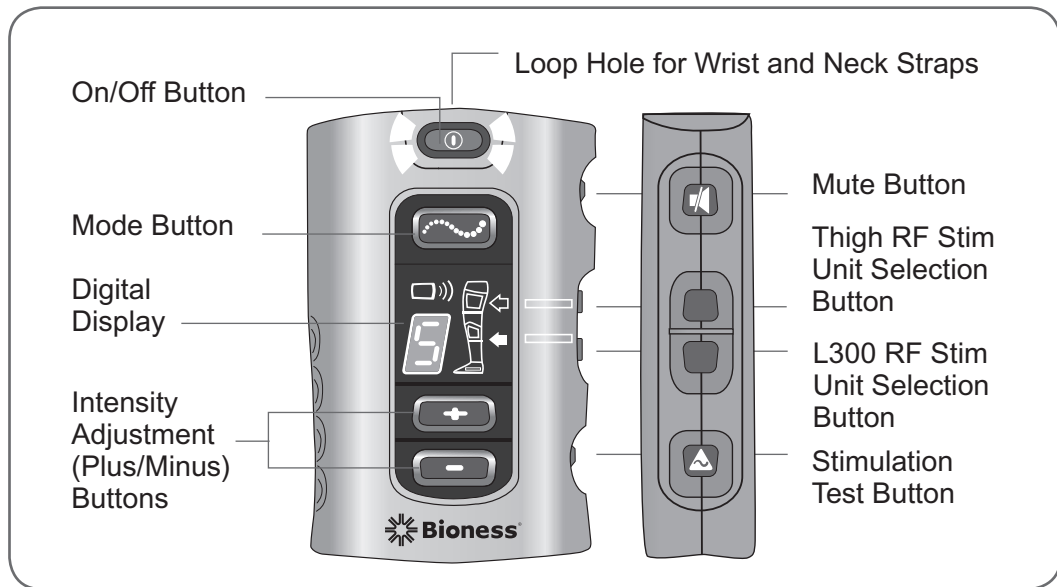


Figure 5-8: L300 Plus Control Unit operating buttons and digital display.

The L300 Plus Control Unit communicates wirelessly with the L300 and Thigh RF Stim Units. It is powered by a single rechargeable AAA NiMH battery, and is small enough to wear on a neck strap or in a belt pouch.












| L300 Plus Control Unit | Operating Button | Description | Function |
|---|--|-----------------------------------|--|
|  |  | On/Off | Turns On/Off the System |
| |  | Mode | Selects Standby, Gait, or Training Mode |
| |   | Intensity Adjustment (Plus/Minus) |  Increases Stimulation Intensity  Decreases Stimulation Intensity |
| |   | RF Stim Unit Selection | Top: Selects the Thigh RF Stim Unit. Bottom: Selects the L300 RF Stim Unit |
| |  | Mute | Mutes/Un-Mutes the Control Unit Audio Alerts; Turns Off the Visual and Audio Indicators in the Selected RF Stim Unit; Turns On/Off Audio Feedback During Stimulation |
| |  | Stimulation Test | Tests Stimulation for the Selected RF Stim Unit |

Table 5-3: L300 Plus Control Unit operating buttons.

Operating Modes

The L300 Plus System has three operating modes: standby, gait, and training.

Standby Mode

In standby mode, the NESS L300 Plus System is on and waiting for commands. Stimulation is off.

Gait Mode

Gait mode is used when walking. In gait mode, the Intelli-Sense Gait Sensor signals the L300 and Thigh RF Stim Units when the heel leaves the ground and when the heel contacts the ground. Stimulation in the L300 and Thigh RF Stim Units respond as programmed by the clinician.

Training Mode

Training mode is used to train the muscles when not walking (for example, sitting or lying down). Training mode works independently of the Intelli-Sense Gait Sensor. Stimulation is delivered in cycles pre-set by the clinician.

Training mode is designed to:

- Facilitate muscle re-education.
- Prevent or retard disuse atrophy of the lower leg and thigh muscles.
- Maintain or improve range of motion of the ankle and knee joints.
- Improve local blood circulation.