Product Number: RS2

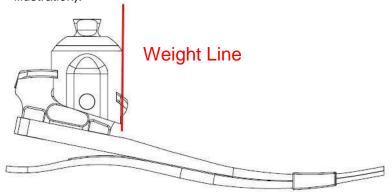
## **Product Description**

The Runway® is a carbon fiber adjustable heel height prosthetic foot. Its anatomical gliding ankle maintains appropriate foot alignment to provide knee stability and consistent performance at all heel heights. The Runway® carbon fiber material stores and returns energy so that users can walk farther, faster, longer. The Runway® fiber layers are tailored to an individual's body weight and impact level, providing a customized product for superior comfort.

## **Bench Alignment**

Prior to donning the prosthesis:

- Plantarflex/Dorsiflexion foot to match the shoe heel height. (See Operation Section)
- Adduct/Abduct socket to provide appropriate frontal plane angle.
- Flex/Extend socket to provide appropriate sagittal plane angle.
- Move the socket to ensure the weight line falls along the anterior edge of the pylon (see illustration).



### **Dynamic Alignment**

To optimize the heel to toe rollover motion, adjust the following variables:

- Anterior/posterior foot placement
- Dorsiflexion/plantarflexion
- · Heel stiffness

## **Heel Stiffness**

Heel too soft Symptoms

- · Foot flat occurs too rapidly
- · Toe feels excessively stiff
- Knee hyperextension

#### Solutions

- · Shift socket anteriorly in relation to the foot
- Attach rubber stiffening bumpers

Heel too hard

Symptoms

- · Rapid knee flexion, instability
- · Heel to toe progression too rapid
- · Lack of energy return sensation
- Solutions
- Shift socket posteriorly in relation to the foot
- Verify appropriate foot module category

**Toe Stiffness** 

Toe too stiff

Symptoms

- Flat spot in rollover motion at slow cadences Solutions
- Consider a lower category foot module

Toe too soft

**Symptoms** 

- Clicking noise at initial contact
- Excessive toe deflection with high impact activity Solutions
- · Consider a higher category foot module

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## Stiffening Bumpers

Rubber stiffening bumpers are included to adjust the heel stiffness during loading response. The bumpers may be temporarily attached between the heel lever and the keel using the pre-applied adhesive in the location indicated on the bumper package to increase heel stiffness one category. If the heel stiffness is too stiff, move the bumper posteriorly; too soft, move it anteriorly. For permanent placement, clean off the pre-applied adhesive with Acetone, and adhere bumpers using Super Glue (cyanoacrylate).

## Spectra™ Sock

Replace Spectra<sup>™</sup> socks at intervals appropriate to the user's activity level to protect the foot shell and minimize noise. Failure to inspect and replace the Spectra<sup>™</sup> socks may prematurely wear the foot module.

#### **Foot Shell**

Use the Foot Shell Removal Tool (ACC-00-10200-00) to install or remove the foot shell to prevent damage to the foot module.

There is a potential for interference between the button and foot shell. If this is the case, when replacing the foot shell, the prosthetist will be required to grind the foot shell in those areas where interference is causing the button to not seat fully. Foot shells supplied with new feet will be ground as needed.

## Runway® System

Maximum user weight: 116 kg (255 lb) Available sizes: 22cm-28cm

Heel height: Adjustable 0"-2", 0-5cm
Warranty: Foot module (36 months)
Ankle mechanism (18 months)

Foot shell (6 months)

# Operation (Prosthetist)

- · Depress the adjustment button.
  - To increase heel height, apply pressure simultaneously to the top of the toe and the front of the knee, creating a plantar flexion moment at the ankle.
  - To decrease heel height, press down on the toe and back of the knee to apply a dorsiflexion moment at the ankle.
- Verify foot shell interference is not causing the button to not seat fully. (high and low settings)
- Verify the adjustment button has returned to its original position before allowing ambulation.
- If the adjustment button sticks, free by applying alternating dorsiflexion/plantar flexion moments to the ankle.

# Operation (User)

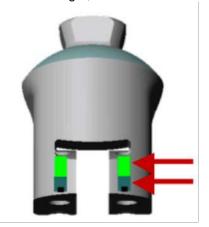
- Your prosthetist may let you use the prosthesis without a foot shell for a short period
  of time, allowing you to visually learn to adjust the ankle mechanism by setting the
  pylon in the correct vertical orientation after changing shoes.
- Inform your prosthetist if the toe and heel of the foot do not feel balanced.
- Be seated in a chair to adjust the heel height.
- Push the button in with your thumb to adjust heel height. Move the ankle to the desired location by sliding the foot forward or backward with other hand. Do not attempt to twist the foot.
- Ensure the locking pin is fully engaged by attempting to adjust the ankle without pressing the adjustment button. This is to ensure the ankle will not slip into the next lower adjustment.
- Avoid actions that would interfere with the heel adjustment mechanism (i.e., overtightening shoelaces or shoe straps)
- Active use may occasionally cause the adjustment button to stick slightly. Should this
  occur, the button may be freed by pressing down alternately on the toe and heel for a
  button stuck between positions. The button can also stick when in the closed position.
  In this case, a gentle strike on the button should free it.

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# Maintenance (Prosthetist)

The ankle mechanism requires periodic maintenance.

- Inspect the foot every six months. For an active user, increased inspection frequency may be needed. Service as necessary. Replace Spectra™ sock and/or foot shell if worn to prevent damage to the foot module components.
- There is a potential for interference between the button and foot shell. If this is the
  case, when replacing the foot shell, the prosthetist will be required to grind the foot
  shell in those areas where interference is causing the button to not seat fully. Foot
  shells supplied with new feet will be ground as needed.
- Wet or dirty environments may cause the ankle module to malfunction and make it difficult to operate.
  - If the ankle module is exposed to wet or dirty environments, it is recommended to periodically clean and lubricate the module in order to minimize impact on module performance.
    - Disassemble from shell, rinse with fresh water and thoroughly dry.
    - If corrosion or buildup has occurred, clean the ankle mechanism with solvent (i.e., acetone, WD-40) and compressed air.
    - Cycle the mechanism thru the entire range while cleaning.
    - Lubricate the slide with light grease, or spray lubricant and wipe off excess.
- If the ankle mechanism makes a clicking noise when walking or tapping the toe or heel of the foot, ankle shims adjustment will be required by the prosthetist.
  - o Remove the foot shell and Spectra™ sock to adjust the ankle shims.
  - Ensure ankle assembly is clean and appropriately lubricated before adjustment.
  - Use a 1/8" hex wrench (provided) to tighten slide adjustment screws located on the underside of the pyramid slide.
  - o Tighten each screw until firm resistance is felt, then loosen until resistance to slide movement is minimal.
  - o Check slide action after each shim is adjusted.
  - If shims are loose, the ankle may make noise when walked. If shims are too tight, the ankle mechanism will be difficult to adjust. (See Figure below)



Shim Shim adjustment screw

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# Maintenance (User)

- Use soap and warm water to clean and/or disinfect the foot shell.
- Wet or dirty environments may cause the ankle module to malfunction and make it difficult to operate.
  - If the ankle module is exposed to wet or dirty environments, it is recommended to periodically clean and lubricate the module in order to minimize impact on module performance.
    - Disassemble from shell, rinse with fresh water and thoroughly dry.
    - If corrosion or buildup has occurred, clean the ankle mechanism with solvent (i.e., acetone, WD-40) and compressed air.
    - Cycle the mechanism thru the entire range while cleaning.
    - Lubricate the slide with light grease, or spray lubricant and wipe off excess.
- Have the foot module serviced at the intervals specified by the prosthetist.

## Warnings

- Wet or dirty environments may cause the ankle module to malfunction and make it difficult to operate.
- Never allow aggregates such as sand to remain in the foot shell.
- If the ankle module is exposed to wet or dirty environments, it is recommended to periodically clean and lubricate the module in order to minimize impact on module performance.
  - o Disassemble from shell, rinse with fresh water and thoroughly dry.
  - o If corrosion or buildup has occurred, clean the ankle mechanism with solvent (i.e., acetone, WD-40) and compressed air.
  - o Cycle the mechanism thru the entire range while cleaning.
  - o Lubricate the slide with light grease, or spray lubricant and wipe off excess.
- Always use the foot with a foot shell. Failure to comply may cause premature wear, loss of function, and/or product failure.
- Avoid over-tightening shoelaces or straps in a manner that interferes with the heel adjustment mechanism.
- Always use the foot with a sock and shoe. Failure to comply may cause noise, premature wear, loss of function, and/or product failure.
- Do not attempt to adjust the ankle while standing, without a grab rail or other appropriate fixed object for support.
- Never attempt to loosen the bolts affixing the ankle mechanism to the keel.
- Discontinue use and consult prosthetist if prosthesis starts to make any noise.
- Do not share your prosthesis with others; it may cause damage to the device and/or injury.
- Inform your prosthetist if you lose or gain a significant amount of weight.



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