

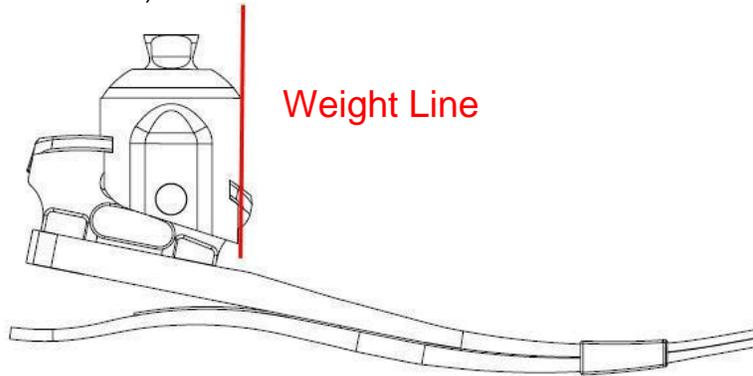
# Runway® HX Instruction for Use

Product Number: RS2-K1

**Product Description** The Runway® HX 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

<b>Heel Stiffness</b>	Heel too soft	<p><i>Symptoms</i></p> <ul style="list-style-type: none"><li>• Foot flat occurs too rapidly</li><li>• Toe feels excessively stiff</li><li>• Knee hyperextension</li></ul> <p><i>Solutions</i></p> <ul style="list-style-type: none"><li>• Shift socket anteriorly in relation to the foot</li><li>• Attach rubber <i>stiffening bumpers</i></li></ul>
	Heel too hard	<p><i>Symptoms</i></p> <ul style="list-style-type: none"><li>• Rapid knee flexion, instability</li><li>• Heel to toe progression too rapid</li><li>• Lack of energy return sensation</li></ul> <p><i>Solutions</i></p> <ul style="list-style-type: none"><li>• Shift socket posteriorly in relation to the foot</li><li>• Verify appropriate foot module category</li></ul>
<b>Toe Stiffness</b>	Toe too stiff	<p><i>Symptoms</i></p> <ul style="list-style-type: none"><li>• Flat spot in rollover motion at slow cadences</li></ul> <p><i>Solutions</i></p> <ul style="list-style-type: none"><li>• Consider a lower category foot module</li></ul>
	Toe too soft	<p><i>Symptoms</i></p> <ul style="list-style-type: none"><li>• Clicking noise at <i>initial contact</i></li><li>• Excessive toe deflection with high impact activity</li></ul> <p><i>Solutions</i></p> <ul style="list-style-type: none"><li>• Consider a higher category foot module</li></ul>

# Runway® HX Instruction for Use

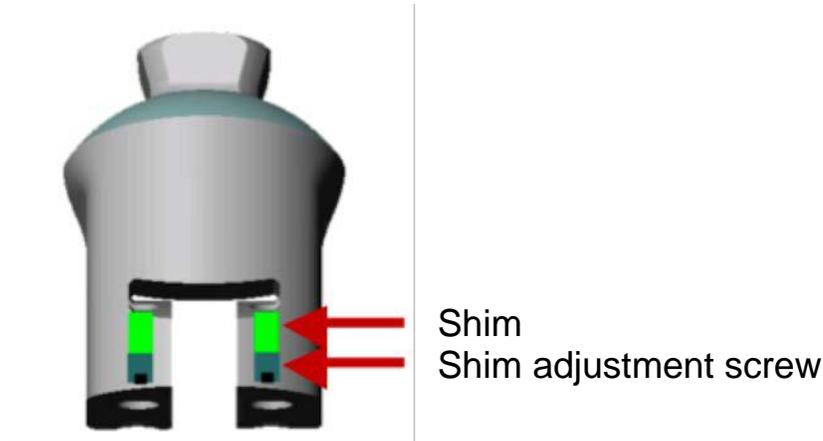
Product Number: RS2-K1

- 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™ 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™ 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.
- 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)<br>Ankle mechanism (18 months)<br>Foot shell (6 months) |
- Operation (Prosthetist)**
- Insert a 4mm hex key (provided) through the posterior foot shell into the ankle mechanism.
  - To increase the foot height, turn the hex key clockwise.
  - To decrease the foot height, turn the hex key counterclockwise.
  - Remove the hex key prior to allowing ambulation.
- 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.
  - Inform your prosthetist if the toe and heel of the foot do not feel balanced.
  - For best result, be seated in a chair to adjust the heel height.
  - Do not attempt to adjust the ankle while standing without using a grab rail or other appropriate fixed object for support.
  - Insert a 4mm hex key (provided) into the back of the foot shell.
  - To increase the foot height, turn the hex key clockwise.
  - To decrease the foot height, turn the hex key counterclockwise.
  - Fourteen turns will change the heel height by one inch.
  - The wrench must be removed from the ankle before placing weight on the foot.
- 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.
  - 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 tapping the toe or heel of the foot, ankle shims adjustment will be required by the prosthetist.

# Runway® HX Instruction for Use

Product Number: RS2-K1

- 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.
- Tighten each screw until firm resistance is felt, then loosen until resistance to slide movement is minimal.
- 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)



## 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.

# Runway® HX Instruction for Use

Product Number: RS2-K1

## 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.
  - 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.
- Always use the foot with a foot shell. Failure to comply may cause premature wear, loss of function, and/or product failure.
- 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.



### USA:

3 Morgan  
Irvine, California 92618  
USA  
Toll Free (888) 818-6777  
FAX (949) 672-0084

### Europe:

Jaargetijdenweg 4  
7532 SX, Enschede  
The Netherlands  
Tel. +31 (0)53-20 30 300  
Fax +31 (0)53-20 30 305



**Advena Ltd. Pure  
Offices, Plato  
Close, Warwick, CV34 6WE UK**