

feel sluggish with minimal energy return and the knee may buckle. Shift the socket posteriorly, to alleviate this problem.

- Use Loctite T 242 (not provided), and torque pyramid adjustment screws to 3.7 inch/pounds or to the manufacturer's recommendations. All screws should be re-torqued after dynamic alignment of the prosthesis.

#### Verifying Foot Module Category:

- A foot module which is too stiff will exhibit a flat spot in its rollover shape at a slow cadence, and will begin to roll over smoothly as cadence increases.
- A foot module which is too soft may make a clicking noise at heel strike, and will exhibit excessive toe deflection when the amputee engages in high impact activities.
- Heel stiffness may be increased by affixing the heel stiffening foam (included) to the underside of the overload spring, using Barge or similar contact cement.

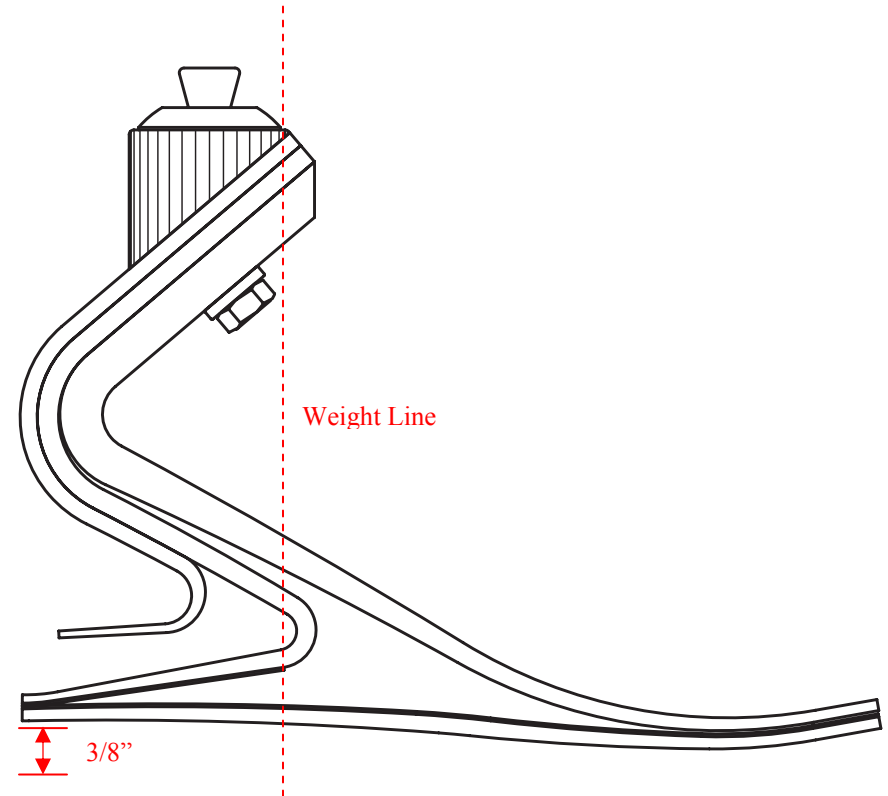
#### Amputee Warnings and Contraindications

The following warnings and/or contraindications specified for the assembled prosthesis, include, but are not limited to:

- ✓ Discontinue use, and consult your physician or prosthetist, if the prosthesis causes pain or injures you in any way.
- ✓ Discontinue use, and consult your prosthetist if any part of the prosthesis starts to make noise.
- ✓ Do not attempt to adjust or service the prosthesis, except as advised by your prosthetist.
- ✓ Inform your prosthetist if you lose or gain a significant amount of weight.
- ✓ Have the prosthesis serviced at regular intervals specified by the prosthetist.
- ✓ Freedom Innovations' feet are manufactured and tested for a particular weight and activity level. Use by an amputee, other than the one for whom they were originally manufactured, may be dangerous to the other amputee, and shall void any written or implied warranty.



Advena Ltd., Hereford, HR4 9DQ UK



**Renegade™ Prosthetic Foot**

#### Instructions for Use

R-720-003 **Renegade, Prosthetist Instructions**, Rev. E

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# Revolution Series™ Renegade™ Prosthetic Foot

## Important Warnings

- **NEVER assemble the Renegade™ foot module with the Sole Plate inside the Spectra Sock.** This will lead to premature failure of the foot module, and will *void the warranty*.
- **NEVER use the Renegade™ foot module without the Sole Plate.** The design of the Renegade™ Foot is unique; it incorporates a floating Sole Plate which acts as a heel. Removing the Sole Plate will adversely affect the performance of the foot module, and will *void the warranty*.  
If the Sole Plate is removed, the angular design of the Renegade™ Foot Module and the distal contact of the Toe Lever, and the Z-Shock create a void in the mid-foot, which may cause the amputee to fall when ascending or descending stairs, if the amputee does not have the strength in his or her knee extensors to manage this longer lever arm.
- **Spectra socks must be replaced at intervals appropriate to the amputee's activity level.** Spectra socks will usually last 6 months or more, but this interval may decrease to three months or less for very active amputees. Failure to inspect and replace the spectra socks may prematurely wear the foot module, and will *void the warranty*.
- **Do not allow sand or other contaminants to remain in the foot shell.** If the prosthesis is used in conjunction with a protective cover, cleaning of the foot shell should not be necessary between follow-up appointments. If the prosthesis is not protected by a protective cover, the foot shell should be rinsed out with water after use in a dirty environment, and preferably have the shell removed and cleaned if the amputee is capable of this task.
- Freedom Innovations' foot modules should be inspected and serviced every six months, or more often for very active amputees.
- Freedom Innovations foot modules are manufactured to fit industry standard pyramids and receivers. It is the prosthetist's responsibility to choose and fabricate properly fitting connectors.

## Assembly

The Renegade™ foot module will be inserted into the provided Spectra™ sock and fitted into the foot shell at the factory. The provided Spectra™ sock should always be used to cover the Toe Lever and Z-Shock before fitting them into the foot shell.

## Bench Alignment

Sagittal Plane:

- Introduce the appropriate socket flexion and heel height, according to the amputee's requirements.
- Position the weight line, taken from the center of the socket at the patellar tendon level, so that it falls along the anterior edge of the pylon.

Coronal Plane:

- Introduce the appropriate socket adduction/abduction, according to the amputee's requirements.
- Position the weight line, taken from the center of the socket at the patellar tendon level, so that it falls through the midline of the foot module in a neutral M-L position.
- Set toe-out at 3-5 degrees.

## Static Alignment

- Fit the anatomical foot cover onto the foot module and place into shoe. Use heel wedges to ensure that the weight line falls along the anterior edge of the pylon.
- Establish the correct height of the prosthesis by having the amputee stand with feet approximately 4" apart, and equal weight bilaterally.
- Check socket flexion, load line position and toe-out. Correct as necessary.

## Dynamic Alignment

Gait:

- The function of the foot may be optimized by modifying the alignment of the socket relative to the foot. The Sole Plate and Z-Shock store energy at heel strike and progressively release it at midstance. Careful attention to alignment will ensure optimal energy return, and improve control of the prosthesis.
- As the amputee walks, check for smoothness of gait and even ground contact
- Optimize the alignment by progressively moving the weight line anteriorly over the foot to increase heel stiffness and observing the heel to toe function.
- The heel is too hard, if the amputee's gait exhibits rapid heel to toe movement and they have difficulty in controlling the prosthesis. The toe may