# WARRANTY

The warranty for the Pediatric Impulse Foot is one year from the date of invoice. The use of WillowWood pediatric components with any manufacturer's adult-sized components will void the warranty. Use of the Pediatric Impulse Foot for amputees whose modified body weight is more than 132 lbs (60 kg) or who engage in extremely high and abusive activity is against WillowWood's recommendations and will void the one year warranty. Modified body weight is defined as the weight of the amputee plus any loads carried by the amputee. "Extremely high and abusive activities" are defined as activities such as skydiving, karate, and judo; activities that could result in injury to an individual's natural feet; and activities that expose the prosthesis to corrosives such as salt water.

# WARRANTY DISCLAIMER

WillowWood warrants that each product manufactured will, at the time of delivery, be of workmanlike quality and substantially free of defects. WILLOWWOOD MAKES NO OTHER WARRANTY, IMPLIED, OR EXPRESSED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty shall terminate immediately upon an action to combine our products with other materials or in any manner to change the nature of our products. The sole remedy is replacement of the products or credit for the products. WillowWood's liability shall not exceed the purchase price of the product. WillowWood shall not be liable for any indirect, incidental, or consequential damage.

# WILLOWWOOD RETENTION OF RIGHTS

WillowWood retains all intellectual property rights reflected or incorporated in its physical products, regardless of the transfer of the physical products to another party or parties.

### PARTS AND ACCESSORIES

### **Endoskeletal Accessories**

PPF-1208 Pediatric Titanium Foot Pyramid Adapter
PPF-1209 Pediatric Aluminum Foot Pyramid Receiver

# **Exoskeletal Accessories**

PPF-1540 Pediatric Exoskeletal Laminating Core
PPI-1518SL Pediatric Impulse Exoskeletal Ankle Block
(Size 15-18) Small Left
PPI-1518SR Pediatric Impulse Exoskeletal Ankle Block

71-1518SR Pediatric impulse Exoskeletai Ankie Biock (Size 15-18) Small Right

PPI-1922LL Pediatric Impulse Exoskeletal Ankle Block (Size 19-22) Large Left

PPI-1922LR Pediatric Impulse Exoskeletal Ankle Block

(Size 19-22) Large Right

Pediatric Growth Kit PPF-GKIT

Pediatric Titanium Symes Nut PPF-FS006

# Willow Wood\*

Pediatric Impulse® Foot Instructions



# WHAT'S IN THE BOX

Pediatric Impulse Foot

M8 x 34 Foot Bolt (700-B203)

M8 x 28 Foot Bolt (700-B201)

Set of 3 Heel Inserts (foot sizes 15-22 only)

Instructions

Patient Advisory

# Willow Wood

The Ohio Willow Wood Company 15441 Scioto Darby Road Mt. Sterling, Ohio 43143 USA Phone: 740.869.3377 or 800.848.4930 Fax: 740.869.4374 www.willowwoodco.com

REP

Ohio Willow Wood Company B.V Keizersgracht 62/64 1015 CS Amsterdam The Netherlands have been tested and approved for use only with other WillowWood pediatric components. The use of WillowWood pediatric components with any manufacturer's adult-sized components will void the warranty. The use of WillowWood pediatric components with another manufacturer's pediatric components is done so at the sole judgment of the attending prosthetist.

Notice: WillowWood pediatric components

### **FOOT BOLTS**

WillowWood recommends using the M8 x 34 mm bolt (Part No. 700-B203) when connecting to a Pediatric Titanium Foot Pyramid Adapter, or the M8 x 28 mm bolt (Part No. 700-B201) when connecting to a Pediatric Titanium Foot Pyramid Receiver, Symes Nut, or Exoskeletal Laminating Core. The use of fasteners other than those provided for this product is done so at the sole judgement of the attending prosthetist. The use of the provided fastener is not recommended for any product other than WillowWood feet.

To significantly reduce the possibility of bolt failure, the structures connected by the bolt must both be rigid. (Non-rigid structures demonstrate slight deformation upon loading, resulting in bending of the foot bolt that inevitably leads to failure.) The Pediatric Impulse Foot has been thoroughly tested to ensure that no keel deformation will occur; the prosthetist is then responsible for selecting a component to attach to the keel that is at least as rigid as the keel itself. The foot bolt is a high quality capscrew that has been manufactured especially for this purpose, but WillowWood cannot guarantee its suitability for use with components from other manufacturers.

#### INSTALLATION

Endoskeletal Applications: Use the Pediatric Titanium Foot Pyramid Adapter (Part No. PPF-1208) or Aluminum Foot Pyramid Receiver (Part No. PPF-1209) for best results. The proximal surface of the keel has been specially designed to accommodate these adapters. When assembled, the end of the foot bolt must be within 2 mm of the top of the foot pyramid. (Please note that if the foot bolt extends more than 2 mm above the foot pyramid, the bolt will interfere with the function of the pediatric components.)

The proximal surface also accommodates the spacers in the Pediatric Growth Kit (Part No. PPF-GKIT), which may be used to increase the length of the prosthesis up to 7/8".

If using another manufacturer's foot pyramid, an interface plate may be required to accommodate the keyways on the bottom of the foot pyramid. If an interface plate is used, it may also be necessary to use a longer foot bolt. This interface plate also protects the top surface of the keel in case the foot must be returned. WillowWood will not accept returns of feet with deformed keels.

**Torque:** Apply the Loctite 242 Removable Threadlocker (or equivalent) to the foot bolt. Tighten the Foot Bolt to 15 ft-lbs (20 Nm).

**Heel Inserts:** for foot sizes 15-22, install heel inserts by pressing them into the recess on the bottom surface of the foot. No adhesive is necessary for definitive use. Do not use the foot without a heel insert in place.

Sizes 13-14 do not include heel inserts.

**Exoskeletal Applications:** To fabricate an exoskeletal prosthesis with an Impulse foot, use the Pediatric Exoskeletal Laminating Core (Part No. PPF-1540) or the Pediatric Impulse Exoskeletal Ankle Block and follow the directions included in the kit.

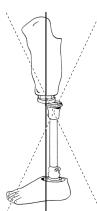
Symes Applications: To fabricate a Symes prosthesis with the Pediatric Impulse Foot, use the Pediatric Titanium Symes Nut (Part No. PPF-FS006) and follow the directions included in the kit.

# **ALIGNMENT**

Slide the foot approximately 1/4" (6 mm) in the anterior direction with respect to the socket from where the foot and ankle would normally be in a standard alignment.

Note: this amount may vary slightly depending on the extent to which the child's gait has developed, as well as the length of the residual limb. For a child who has developed a normal progression from heel to toe, you may need to slide the foot more than 1/4" (6 mm) in the anterior direction to provide a better energy return from the toe of the foot.

Standard Alignment (center of ankle 1/4" posterior to midline of socket)



Recommended Pediatric Impulse Starting Alignment (center of ankle in line with midline of socket)



# MODIFYING THE FOOT

Do not alter the top of the foot to change the angle between the bolt hole and the top of the foot. This may cause bolt fracture due to the resulting bending moments that may be generated due to uneven or non-parallel mating surfaces.

The urethane foam foot shell may be lightly sanded with little resulting loss of strength. Do not expose the internal components of the foot, as this could reduce the structural integrity of the foot.

# **EXPOSURE TO WATER**

The Pediatric Impulse Foot is essentially water resistant, provided no open cracks have developed and no area of the foot has been sanded. Seal the bolt hole with silicone before exposing the foot to water. Complete submersion in water is not recommended.

### PATIENT ADVISORY WARNING

The attached Patient Advisory Warning enables you, the prosthetist, to effectively notify your patients of the limitations of the components in their prosthesis, and of the need to monitor their weight and activity levels. Please review the Patient Advisory Warning with the patient upon delivery of a prosthesis with a Pediatric Impulse Foot. The patient and the prosthetist should then sign the Patient Advisory Warning to acknowledge that it has been reviewed and understood by both parties. Give one signed copy to the patient and place one copy in the patient's file.

If a patient's weight or activity level increases after receiving a prosthesis with a Pediatric Impulse Foot, the patient should immediately contact the prosthetist to determine whether replacement components are necessary. If a patient continues to use a prosthesis with a Pediatric Impulse Foot after experiencing an increase in weight and/or activity level, the foot could fail with the possibility of serious injury to the patient.

To ensure that the correct components are selected for each patient, the prosthetist should weigh the patient on scales in the prosthetist's office. Do not rely on the patient's estimate of his/her own weight. Instruct the patient to monitor his/her weight weekly to ensure that it remains in a range appropriate for the prosthetic components being used.