

## IMPORTANT INFORMATION CONCERNING THE IMPULSE® FOOT

Please read thoroughly before assembling a prosthesis using the Impulse Foot.

### Parts and Accessories

Heel Inserts: 700-HEEL-Y Z

<u>Y</u> = Insert Size (D, W, E, X, C)	<u>Z</u> = Insert Durometer S = Soft M = Medium F = Firm X = Extra Firm
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### Endoskeletal Accessories:

2LTC-1208	Titanium Foot Pyramid
2LTC-1210	Pyramid Spacer Block
3F-6CC-002	Interface Plate
IMPA-X	Impulse Ankle

### Symes Accessories:

2LSC-1400	Symes Socket Adapter Kit
700-FS006	Symes Nut

### Shaped Foam Ankle: 2LAV-XX Y Z

<u>Y</u> = Gender M = Men's W = Women's	<u>XX</u> = Size (in cm)	<u>Y</u> = Side R = Right L = Left	<u>Z</u> = Color B = Buff M = Medium Brown T = Tan
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### Impulse Exoskeletal Kit:

2LTE-1500	Men's size 22-24cm, Right
2LTE-1501	Men's size 22-24cm, Left
2LTE-1502	Men's size 25-26cm, Right
2LTE-1503	Men's size 25-26cm, Left
2LTE-1504	Men's size 27-28cm, Right
2LTE-1505	Men's size 27-28cm, Left
2LTE-1506	Men's size 29-31cm, Right
2LTE-1507	Men's size 29-31cm, Left
2LTE-1520	Women's size 22-23cm, Right
2LTE-1521	Women's size 22-23cm, Left
2LTE-1522	Women's size 24-25cm, Right
2LTE-1523	Women's size 24-25cm, Left
2LTE-1524	Women's size 26-27cm, Right
2LTE-1525	Women's size 26-27cm, Left

Transfer Block (required for use with Exoskeletal Kit): 700-435

### Exoskeletal Accessory:

3F-6CC-003	Large Interface Plate (if a wood ankle block is used instead of the Exoskeletal Kit, install this plate between the attachment surface of the Impulse and a the ankle block)
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### Foot Bolts

- The M10-1.5 x 43mm bolt (Part No. 700-B116) included with the Impulse Foot is recommended for use with the Ohio Willow Wood Titanium Foot Pyramid (Part No. 2LTC-1208).
- A 3/8"-16 x 2.75" bolt, Part No. 700-B120, is also available for use with English thread components and for exoskeletal applications.
- An M10-1.5 x 32mm bolt is available for use with the Impulse Ankle.
- An M10-1.5 x 68mm bolt is available for use with the Pyramid Spacer Block.

When assembled, the end of the foot bolt must be within 2mm of the top of the foot pyramid. (Please note that if the foot bolt extends more than 2mm above the foot pyramid, the bolt will interfere with the function of Ohio Willow Wood Foundation components.)

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 Ohio Willow Wood 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 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 Ohio Willow Wood cannot guarantee its suitability for use with components from other manufacturers.

### Recommended Installation Procedures

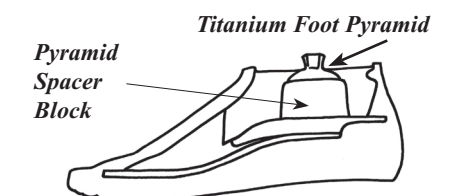
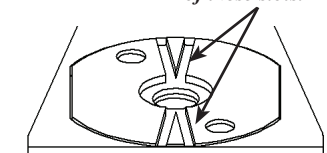
#### Endoskeletal Applications:

1. Place a Titanium Foot Pyramid (Part No. 2LTC-1208) onto the Impulse Foot so that the ridge on the distal surface of the pyramid fits into one of the slots on the proximal surface of the foot. The slots in the surface of the keel that are positioned to allow for seven degrees of toe-out.
2. Apply Loctite 242 Removable Threadlocker that was included with the foot to the foot bolt. Tighten the Foot Bolt to 30 ft-lbs (41 Nm).

The proximal surface also accommodates a Pyramid Spacer Block (Part No. 2LTC-1210), which may be used to allow easier access to the Titanium Foot Pyramid Adapter. The Pyramid Spacer Block may be removed after alignment or left in definitively.

If using another manufacturer's foot pyramid, a special interface plate (Part No. 3F-6CC-002) may be required to accommodate the keyways on the bottom of the foot pyramid. If this special interface plate is used, it may also be necessary to use a longer foot bolt (e.g. Part No. 700-B112, M10-1.5 x 63mm, or Part No. 700-B120, 3/8"-16 x 2.75"). This interface plate also protects the top surface of the keel in case the foot must be returned. Ohio Willow Wood will not accept returns of feet with deformed keels.

The ridge on the bottom of the pyramid must be placed in one of these slots.



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**Impulse Ankle:** To provide multiaxial ankle motion with the Impulse Foot, use the Impulse Ankle (Part No. IMPA-X). Follow the instructions included with the ankle.

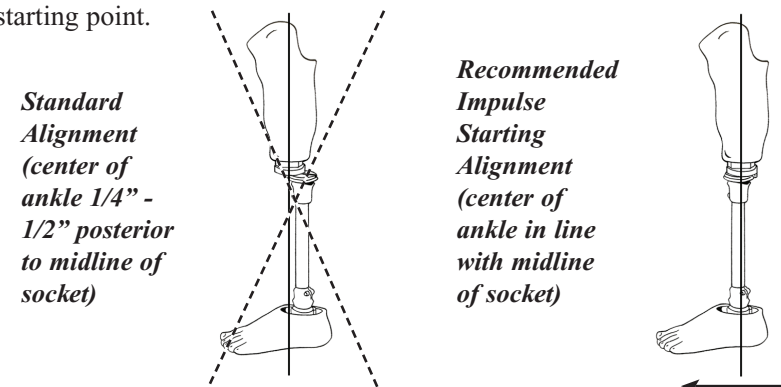
**Heel Inserts:** Install heel inserts by pressing them into the recess on the bottom surface of the foot. No adhesive is necessary for definitive use. Do not use the foot without a heel insert in place.

**Exoskeletal Applications:** Use the Impulse Exoskeletal Kit (Part No. 2LTE-15XX) and follow the directions included in the kit. A one-time purchase of the reusable Transfer Block (Part No. 700-435) is required.

**Symes Applications:** Use the Symes Nut (Part No. 700-FS006) or the Symes Socket Adapter Kit (Part No. 2LSC-1400) and follow the directions included in the kit. An Impulse Foot with a special Symes keel offering 1/4" (6mm) more clearance is available on a special-order basis. A Symes Socket Adapter Kit is included with each special Symes version of the Impulse Foot.

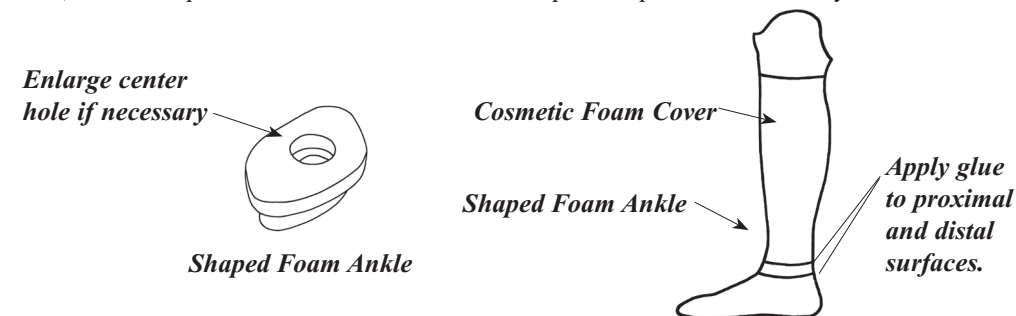
### Alignment

Slide the foot 1/4" to 1/2" (6 to 13mm) in the anterior direction from where the foot and ankle would normally be in a standard alignment. 3/8" (10mm) in the anterior direction is a good starting point.



### Shaped Foam Ankle

A Shaped Foam Ankle is included with each Impulse Foot, for use when applying a foam cosmetic cover to an endoskeletal prosthesis. Enlarge the center hole of the Shaped Foam Ankle as necessary to accommodate the components being used. Glue the distal end of the foam cosmetic cover to the proximal surface of the Shaped Foam Ankle, and glue the distal surface of the Shaped Foam Ankle to the foot. To access the adjustment setscrews on the endoskeletal components without damaging the foam cosmetic cover, lift the Shaped Foam Ankle out of the foot and push it up and out of the way.



**Note:** Cut the foam cosmetic cover 1" or 25mm longer than necessary so that the compression of the foam cover will hold the Shaped Foam Ankle securely against the Impulse foot.

**Note:** Do not sand the surfaces of the ankle/foot interface. If the surfaces are sanded, the glue will form a permanent bond between the foot and the ankle.

### 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 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 an 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 an 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 an 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.

### Warranty

The warranty for the Impulse Foot is one year (allowing three weeks from the date of purchase for installation), provided that the foot is selected according to the following criteria:

**Note: The weights listed below are adjusted body weights. Adjusted body weight is defined as the weight of the amputee plus any loads carried normally or routinely by the amputee.**

	Level 1	Level 2	Level 3	Level 4
Impulse Foot	350 lbs 160 kg	350 lbs 160 kg	350 lbs 160 kg	300 lbs 135 kg

\*Level 4: Has the ability or potential for prosthetic ambulation that exceeds basic ambulation skills, exhibiting high impact, stress, or energy levels. Typical of the prosthetic demands of the child, active adult, or athlete.

Use of the Impulse Foot for amputees who do not meet the above criteria or who engage in extremely high and abusive activity is against Ohio Willow Wood's recommendations and will void the one year warranty. "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

Ohio Willow Wood warrants that each product manufactured will, at the time of delivery, be of workmanlike quality and substantially free of defects. **OHIO WILLOW WOOD 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. Ohio Willow Wood's liability shall not exceed the purchase price of the product. **Ohio Willow Wood shall not be liable for any indirect, incidental, or consequential damage.**

### Ohio Willow Wood Retention of Rights

Ohio Willow Wood 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.