WARRANTY

The warranty for the Torsion Adapter is one year (allowing three weeks from the date of purchase for installation). Use of the Torsion Adapter for amputees whose adjusted body weight is greater than 220 lbs (100 kg) or who engage in extremely high and abusive activities is against Ohio Willow Wood’s recommendation and will void the one-year warranty. Adjusted 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 an injury to an individual’s natural foot; 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.

You must read this before attempting to install.

Important Note:
This unit is not field-serviceable. If, under any circumstances, the M8 Socket Head Cap Screw that holds the Torsion Adapter unit together is removed or loosened, the warranty is voided.

TOOLS NEEDED

Loctite Removable Threadlocker 242 or equal
4mm hex wrench
Optional:
Drill bit (1/16”-3/32” diameter)
Pin Vise (available at McMaster-Carr or hardware stores)

INSTALLATION

The Upper Housing of the Torsion Adapter (Adapter) has an M36 x 1.5 thread; connect it to a mating component. The torque and threadlocker specifications provided by the manufacturer of the mating component must be followed.

Note: there is no required orientation for the Torsion Adapter. The Upper Housing can be positioned as either the proximal end or the distal end of the component.

Connect the Lower Housing to the mating 4-hole component of your choice using M6 screws of the appropriate length. Apply removable threadlocker to the screws and tighten to 9 ft-lbs (12 Nm).

Note: if the 6mm screws are too long, they will bottom out and impede the rotation of the unit.
ADJUSTING THE ROTATIONAL DAMPING RESISTANCE

The rotational damping resistance of the Torsion Adapter is controlled by polyurethane Damper Rods (Rods) inside the unit. Three levels of stiffness are provided:

- Red Rods: highest resistance
- Yellow Rods: medium resistance
- Green Rods: lowest resistance

The Torsion Adapter is shipped with the yellow Rods installed. The Rods may be replaced with rods of any color. If your patient requires a different level of resistance in one direction than the other, you may install two rods of different colors.

Note: it is easier to remove the Damper Rods if the Torsion Adapter is installed in the prosthesis.

1. Remove the two setscrews from the Lower Housing.

2. Hit the setscrew hole openings against a wooden surface until the two Damper Rod Caps (Caps) fall out.

   Note: extra setscrews and Caps are provided with each Torsion Adapter in the event that the original components are misplaced.

3. Using the attached prosthesis for leverage, gently rotate the Adapter back and forth to dislodge the Rods.

4. **If the Damper Rods do not come out:** Insert a small (1/16” - 3/32” diameter) drill bit into the Pin Vise as shown. Rotate the Pin Vise clockwise while pushing the drill bit into the Rod. Push the bit approximately 1/16” into the Rod, and pull the Rod out.

5. Select the desired replacement Rods. Clean and grease each Damper Rod **lightly** with a good bearing grease, and insert one Rod into each hole.

6. Verify that each Rod is seated in the Lower Housing by pressing on the exposed end until the Rod completely enters the setscrew hole and stops moving. A 4mm hex wrench may be used for this purpose.

7. Clean and **lightly** coat each Cap with bearing grease. Note that one end of the Cap is flat and the other end is recessed slightly. Insert a Cap into each hole, with the **recessed end** facing the Rod.

8. Push the Cap against the end of the Rod using a 4mm hex wrench. Carefully align the Cap in the passage to avoid binding or thread damage.

9. Replace the setscrews and tighten until the setscrews contact the Caps.

10. If desired, you may pre-load the Rods by continuing to tighten the setscrews. The setscrews can be tightened 2-3 turns past the point at which they are flush with the housing.

11. After the Rods are adjusted to the patient’s satisfaction, note their position. Remove each setscrew, apply a drop of removable threadlocker to each setscrew, and tighten to the desired position. The set screws may be adjusted slightly to regain the desired “feel” before the threadlocker sets.

   **Note:** applying more than a small amount of threadlocker may cause the Damper Rod Caps to adhere to the inside of the unit.

EXPOSURE TO WATER

Any submersion in water is not recommended. Be sure to dry off the Torsion Adapter if it is exposed to rain or other moisture.