

### MOTO KNEE2 PERFORMANCE

A high-impact, durable, and highly adjustable prosthetic knee.

### FEATURES:

The Moto Knee was developed to be a high impact multisport knee with constant flexion resistance. Because of this feature, it is not an ideal 'everyday' walking leg. The key features that makes the Moto Knee2 unique are:

- Adjustable extension assist comparable to quadriceps function
- Adjustable hydraulic dampening for flexion and extension
- Patented linkage to allow 120 degrees of useable flexion
- Socket stop/bumper to prevent socket damage
- Multiple alignment options to improve performance
- Durable construction to withstand stresses from action sports
- Corrosion resistant parts for use in and around water



### SPECIFICATIONS

<b>ACTIVITY LEVEL:</b>	<b>Unlimited</b>
<b>MAX. PATIENT WEIGHT:</b>	<b>250 lbs (114 kg)</b>
<b>KNEE WEIGHT:</b>	<b>3 lbs (1.36 kg)</b>
<b>BUILD HEIGHT:</b>	<b>9.65 in (24.51 cm)</b>
<b>KNEE FLEXION:</b>	<b>Position 1 - 120 deg</b> <b>Position 2 – 85 deg</b>

**- Four hole adapter on top and bottom of knee frame**

**2 Year Limited Warranty on  
knee frame and components**

**1 Year Limited Warranty on  
FOX SHOCK**

**Warning:** Participating in any sport has certain risks involved, which may cause bodily injury, this is compounded even more for amputees since they may not have the balance and control with the prosthesis compared to a normal leg/foot. Therefore, we advise you to learn about the risks involved with each activity and be sure to take the necessary safety measures. The Alpine Foot alone, will not guarantee athletic performance.... Though with practice and the right tools, you can get there!

### POSSIBLE ACTIVITIES

- Motocross
- Downhill/cross-country skiing
- Snocross
- Sportbike
- Jet Ski
- Equestrian activities
- Wake/snow/skateboard
- ATV
- Mountain bike
- Waterskiing
- Road bike
- And much more

### Warning:

As with all knee prosthesis' there are multiple pinch points as the knee is flexed. The two main pinch points are located between the knee frame and socket and inside the roller guide area.

**Do Not insert fingers or any other object in these areas while flexing the knee joint**

### KNEE SET UP

#### Step 1: Connect the VF2 to the Moto Knee2

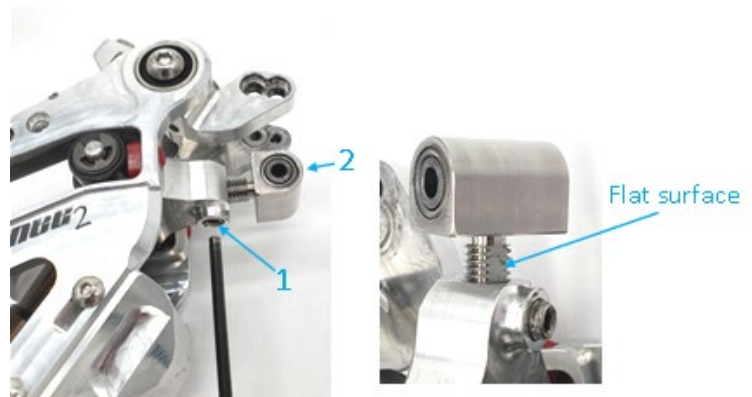
The ankle alignment/calibration varies depending on activity, refer to VF2 manual for alignment and calibration. We suggest that the Moto Knee2/VF2 combo is about .5" shorter than the walking leg system to allow better toe clearance. \*\*Refer to Alignment Diagram for details.

#### Step 2: Connect the Socket to Moto Knee2

Start with centering the socket receiver onto the pyramid. At minimum, there should be a 15 degree angle between the center line of knee and the centerline of the socket. Depending on the activity, this may increase up to 30+ degrees.

Changes in knee flex can be accomplished through small adjustments on the pyramid or by increasing or decreasing the length of the Push-Rod. See Push-Rod adjustment diagram for details.

- Loosen the 4mm sets-crew to unlock threads (1)
- Rotate Push-Rod eyelet (2) clockwise to shorten and counterclockwise to lengthen.
- Make sure the flat side of threads are facing toward the set screw before reassembly
- Insert Push-Rod back in desired mounting hole and torque bolt
- Tighten Set Screw (1)



### KNEE SET UP

#### Step 3: Choose flexion range for preferred activity

Decide if maximum or minimum flex range is ideal for the activity.

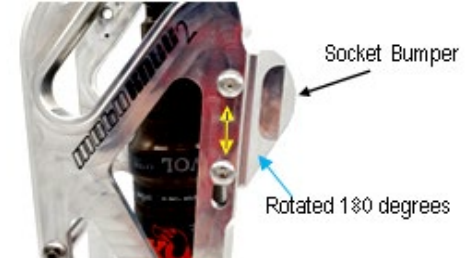
**Position 1** - Allows 120 degrees of flex range from the extended position

**Position 2** - Allows 85 degrees of flex range from the extended position and will have more resistance at the start of movement compared to position 1.



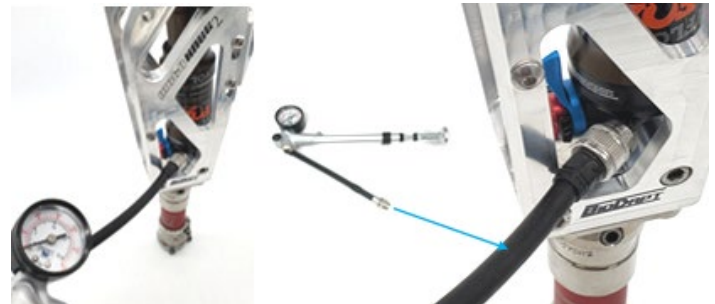
#### Step 4: Socket Bumper Adjustment

The Moto Knee has an adjustable socket bumper to reduce the stress of impact at max flex range. When possible, if socket shape allows, adjust the socket stop to contact the socket when the track roller connects with end of travel. This splits the potential impact load between the socket and knee frame contact point and the track roller assembly. There is an adjustable slide mount and the socket bumper can also be rotated 180 degrees to achieve a higher level contact point.



#### Step 5: Air Spring Adjustment

The Air Spring gives the resistance to flexing under weight. If you want it to be stiffer then add more air, if you want it to flex easier then decrease the air pressure.



**Note:** when threading air pump onto filler valve, the pressure from inside the shock pressurizes pump which reduces the air pressure by around 5-8psi. Gauge is accurate when removing from valve.

### KNEE SET UP

#### Step 6: Hydraulic Flexion Adjustment

**Red Dial** - Compression/rebound clicker (range of 9 clicks); rotate this clicker clockwise to slow the compression and rebound. Example: if the toe feels too 'springy' then rotate clockwise to slow down the response.



**Blue Lever** - Compression Adjuster (range of 3 clicks); Controls the flexion speed of the knee. This adjustment makes a very noticeable change. The stiff setting can act as a hydraulic lock under slow movements but will flex under quick loads. Most activities will be used in medium or soft position.

**Black Dial** - Compression micro-adjust (range 3 clicks); This is a micro adjustment that splits the blue lever options. You can fine tune the compression resistance with this option. Lift and rotate.

### BASELINE SETTINGS

(based on a 180 lbs. amputee with moderate to high adaptive skill level)

**Rebound adjustment (red dial)**– closed position is when the dial is rotated clockwise until it stops. This position closes/restricts oil flow which makes the shock extent slower

**Compression adjustment (blue lever)** – soft / medium / stiff

#### Snow/Wake/Skateboard – Front Leg

**Air Pressure:** 160 -230 psi    **Push-Rod Position:** 2

**Rebound:** 1-4 clicks from closed position

**Compression (blue Lever):** Soft or medium

#### Mountain Bike

**Air Pressure:** 50 -160 psi    **Push-Rod Position:** 2

**Rebound:** Open

**Compression (blue Lever):** Pedaling - soft /  
Descending – medium or stiff

#### Motocross / ATV / Snowmobile

**Air Pressure:** 90 -125 psi    **Push-Rod Position:** 2

**Rebound:** 1-3 clicks from closed position

**Compression (blue Lever):** Medium or stiff

#### Snow/Wake/Skateboard – Back Leg

**Air Pressure:** 120 -150 psi    **Push-Rod Position:** 1 or 2

**Rebound:** 1-4 clicks from closed position

**Compression (blue Lever):** Soft or medium

#### Downhill Ski

**Air Pressure:** 150 -200 psi    **Push-Rod Position:** 1

**Rebound:** 1-4 clicks from closed position

**Compression (blue Lever):** Soft or medium

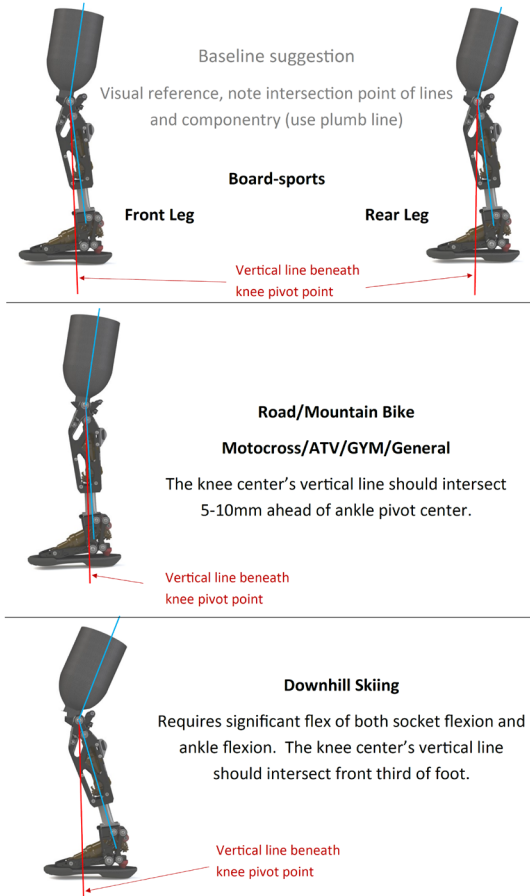
#### Weight Lifting / Gym Training

**Air Pressure:** 100-150 psi    **Push-Rod Position:** 2

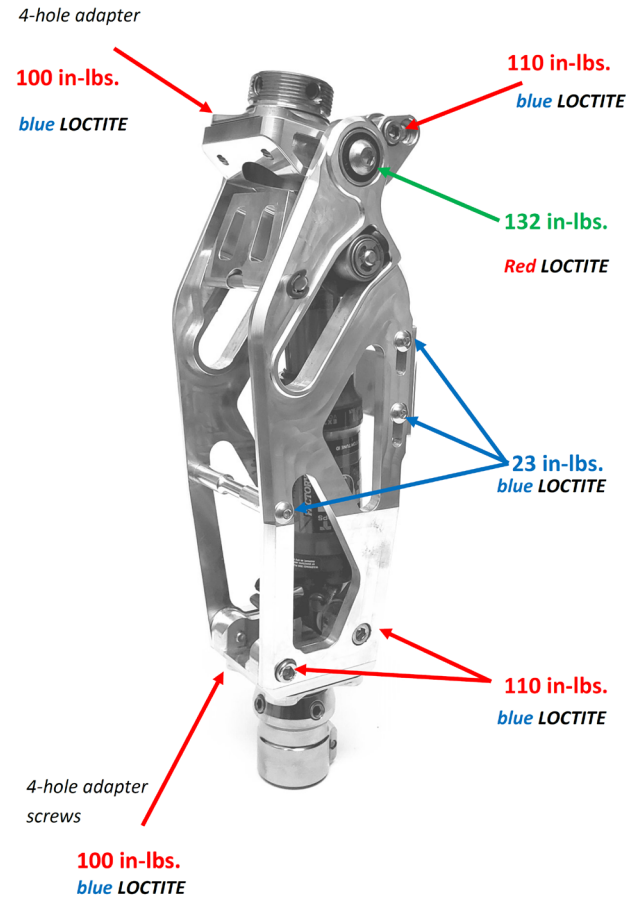
**Rebound:** 1-4 clicks from closed position

**Compression (blue Lever):** Soft or medium

## KNEE SET UP



## TORQUE SPECIFICATIONS



## MAINTENANCE

### After each use (may vary depending on environment)

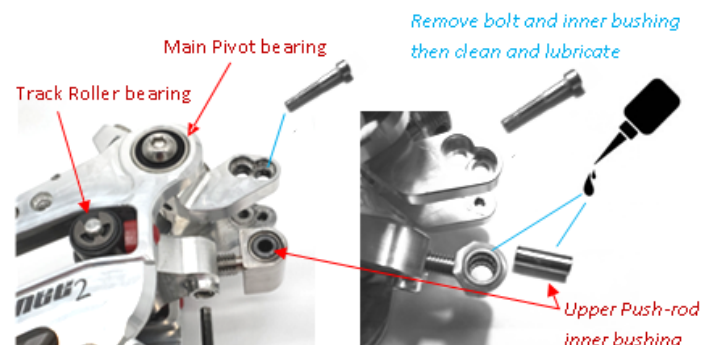
- Visual inspection of fasteners
- Clean and remove debris from moving components

### After 20 hours of use

- Check torque of fasteners (See torque specs)
- Check air pressure
- Lubricate (grease) upper push-rod bushing if using in water environment

### After 200 +/- hours of use or every 2 years (not covered under warranty)

- Inspect and replace track roller and main pivot bearings if they do not rotate smoothly
- Shock rebuild (service can be done by BioDapt or certified FOX shock service center)







Contact us for Biodapt prosthetics information.  
*We personally understand the challenges our customers face finding the right prosthetics and we strive to make the process easy.*



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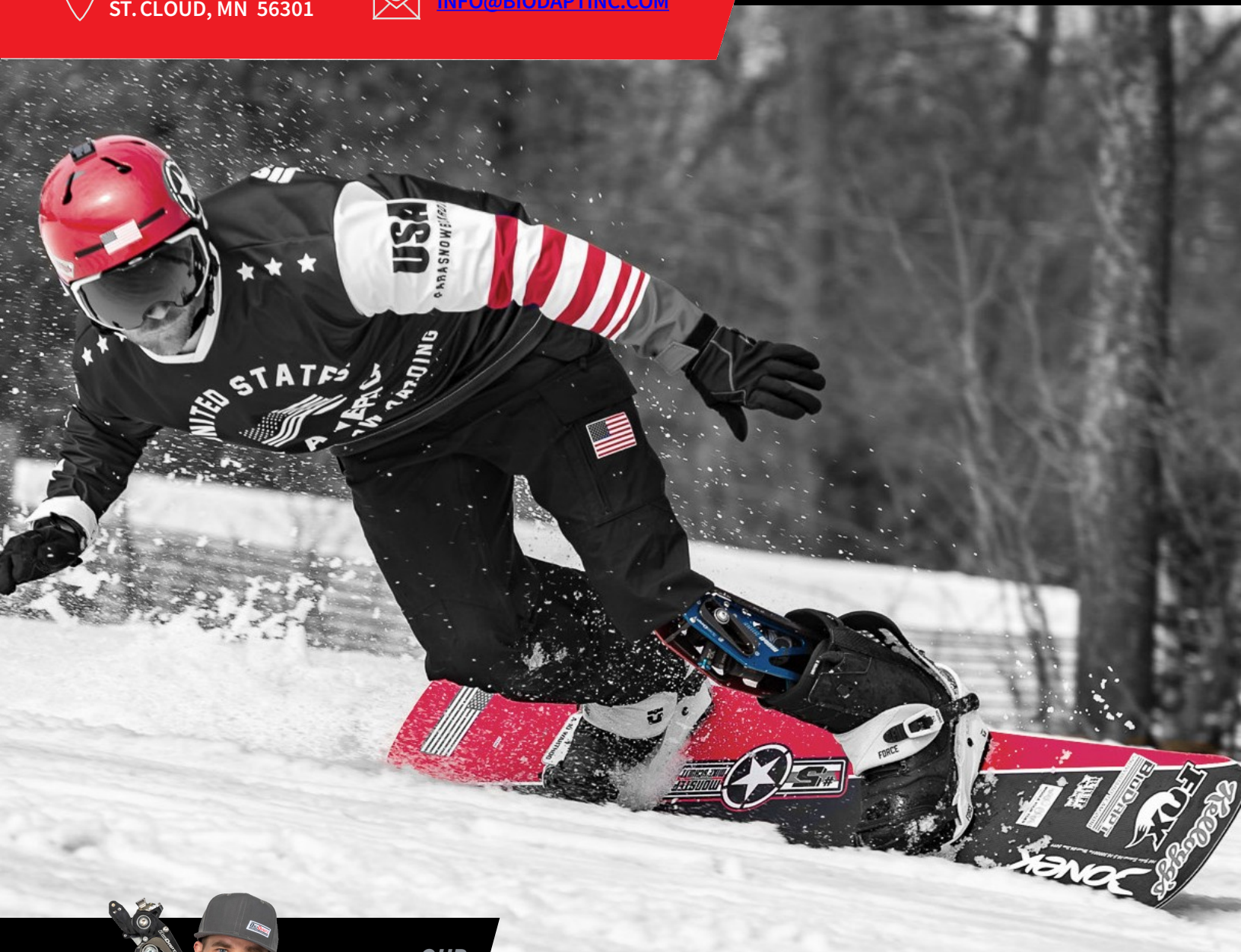


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“

*I have two main passions in my life, being a competitor and designing/creating things in my shop. BioDapt allows me to do both while helping others perform at their highest level.*

”



**OUR  
STORY  
STARTS  
HERE...**

The Moto Knee2, Versa Foot2, VF2-HD, and Alpine Foot were created by Mike Schultz, a professional snowmobile racer that lost his leg above the knee in 2008, to an injury while racing. Unable to find prosthetic equipment to get back in action and refusing to compromise, he created his own. His new designs allow him to perform at a high level in all the sports he loves including snowboarding, motocross, and snowmobile racing. BioDapt was established in 2010, to help other amputees achieve their goals.

**MIKE SCHULTZ | PRESIDENT**

**9 TIME X GAMES GOLD MEDALIST (MOTOCROSS, SNOWMOBILE, SNOWBIKE)  
PARALYMPIC GOLD AND SILVER MEDALIST (SNOWBOARDING)**