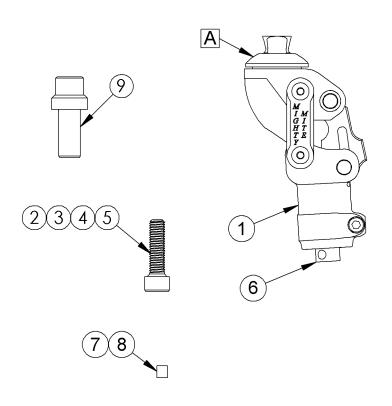
# **MIGHTYMITE 4-BAR KNEE INSTRUCTION SHEET**

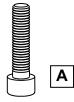


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**Pyramid Attachment** FC100501

4-Hole Attachment FC100503









Note: Assembly shown above is part number FC100510, which includes the MightyMite Knee (FC100500) and

Slide Attachment FC100502

Α

**Threaded Attachment** FC100504

4 Proximal attachments to choose from. Α

the Pyramid Attachment (FC100501).

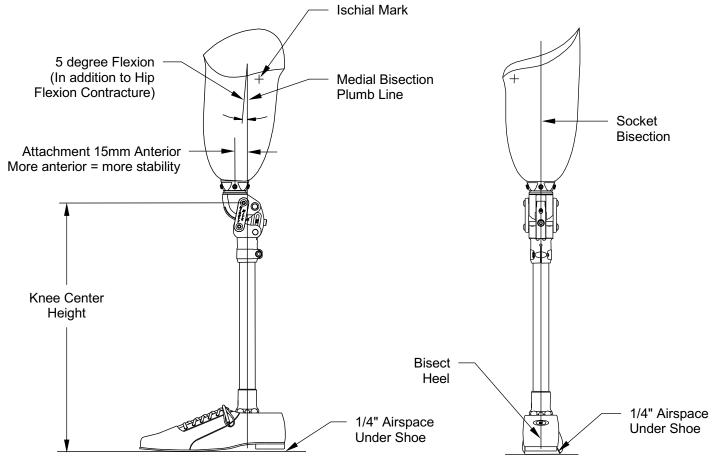
Item	Description	Part No.
1	MightyMite 4-Bar Knee	FC100500
2	30mm Bolt for Pyramid Attachment	61621
3	20mm Bolt for Slide Attachment	61629
4	20mm Bolt for 4-Hole Attachment	61629
5	20mm Bolt for Threaded Attachment	61629
6	Extension Spring Housing	61611
7	Extension Stop Spring, .210" long	61696
8	Extension Stop Spring, .220" long	61697
9	Spring Guide	61612

Extension Assist Spring			
Color	Resistance	PartNo.	
Orange	Less	61643	
Yellow		61644	
Green	<b>†</b>	61645	
Blue	More	61646	



**Extension Assist Spring** 61643 through 61646





### 1) Sagittal Alignment:

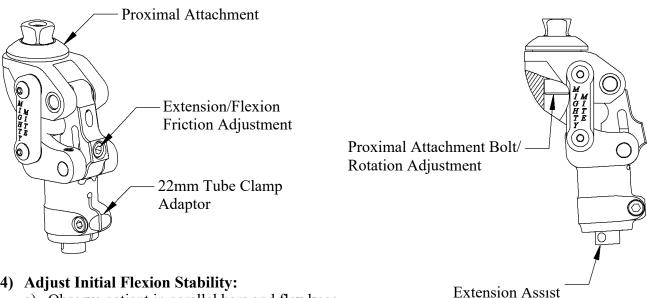
- a) Preflex interface 5 degrees more than measured hip flexion contracture (if any).
- b) Place 1/4" airspace under heel of shoe.
- c) Find Medial Bisection of interface and use plumb line to project distally.
- d) Zero pyramid adjustments at ankle.
- e) Medial Bisection Plumb Line should bisect ankle attachment.
- f) Centerline of knee attachment should be 20mm anterior of Medial Bisection Plumb Line.

## 2) Coronal Alignment:

- a) Project plumb line from socket bisection distally.
- b) Bi-section of ankle should be placed to desired amount of outset.
- c) Outset changes with limb length 0-65mm from Ischium.

# 3) Height Adjustment:

- a) Upper link approximates Knee Center for height measurement.
- b) Anatomic Knee Center is found halfway between Adductor Tubercle and MTP.



#### 4) Adjust Initial Flexion Stability:

- a) Observe patient in parallel bars and flex knee.
- b) If more stability is needed, first plantarflex foot slightly.
- c) If still more stability is required, shift interface anterior.

#### 5) Extension/Flexion Friction Adjustment:

- a) Set Extension/Flexion Friction Adjustment to limit heel rise and terminal impact.
- b) Selection of extension assist spring will also affect swing rate.

#### 6) Rotation Adjustments:

- a) 360 degree adjustment is available with proximal attachment bolt.
- b) Loosen proximal attachment both with 6mm allen wrench, adjust and retighten.
- c) Proximal attachment works with interference taper which must be cleaned prior to assembly to function properly.

Spring Housing

- d) Torque the bolt to 190in-lb (21.5N-m) using a torque wrench.
- e) Loctite Thread Locker 242 should be applied to the 8mm attachment bolt and on all small screws. Do not apply Loctite to the taper.

#### 7) Remove or Install Extension Assist Spring:

- a) Turning counter-clockwise, remove the Extension Assist Spring Housing, which is threaded into the distal 22mm Tube Clamp Adaptor.
- b) Four spring rates are provided, progressing from orange with the least compression resistance, to yellow, then green and finally blue which has the greatest compression resistance.
- c) Install desired spring with the spring guide in contact with the anterior link and turn housing clockwise until seated. Hand tighten only. Use the hole through the bottom of the spring housing only for removal. Overtightening the spring housing may damage the threads. Installing the spring is easiest when the posterior proximal axle has been removed as described in section 9.
- d) Caution! If the spring guide is not installed the spring will damage the knee and void the
- e) The Locking Bar replaces the Extension spring to lock the knee at full extension for fitting, training and evaluation.

#### 8) Distal Connection:

- a) Caution! Do not use spacers or shims if pylon tube is too short, replace with correct length
- b) Loctite Thread Locker 242 should be applied to the 5mm Pinch Bolt and torqued to 7ft-lb/10N-m using a torque wrench.

# 9) Replace/Exchange Urethane Bumper

- a) Remove the Proximal Adaptor.
- b) Remove Posterior Link set screw using a 3/32" wrench.
- c) Hyperflex knee as shown below and push out posterior proximal axle
- d) Rotate knee top forward as shown to the right.
- e) Pry out plunger carefully.
- f) Remove the urethane spring and slide in the new one. Urethane springs are supplied in two lengths. The longer spring (61697) may be required for high activity levels or where stiffer extension springs are fitted.
- g) Replace the plunger and rotate the knee top back into hyperflexed position
- h) Line up the shaft holes and slide washers back into place. Reinsert shaft.
- i) Return knee to extended position. Apply Loctite 242 to the set screw and tighten it back into place.

