

# PRACTITIONER'S MANUAL

## DAW Industries

### 1C1™

A Light-Weight, Dependable Monocentric  
Pediatric Knee with a Manual Lock.

#### **IMPORTANT:**

Adjusting alignment beyond  
recommended limits described within will  
adversely affect patient's gait, and could  
cause premature wear.

#### **HEADQUARTERS:**

6610 Nancy Ridge Road  
San Diego, CA 92121-2252  
Orders: (800) 252-2828 • (858) 622-4962  
Fax: (800) 856-8563  
www.daw-usa.com

**Technical Support**  
**(800) 242-8669**

#### **CENTRAL/EASTERN**

#### **DISTRIBUTION CENTER:**

5579-B Chamblee Dunwoody Road  
Suite 227  
Atlanta, GA 30338-4154  
Orders: (800) 824-7192  
Fax: (800) 865-8563



# 1C1™

A Light-Weight, Dependable Monocentric Pediatric Knee with a Manual Lock.

Stock #: TK-1C1

*For the active to extremely active child*

## Benefits:

- ✓ Cost effective, durable Aluminum Alloy construction
- ✓ Adjustable friction swing control & extension assist
- ✓ Adjustable Manual Lock Free Play
- ✓ Proven reliability, zero maintenance
- ✓ Forever-smooth stainless ball bearing axes



### **IMPORTANT:**

Read technical information thoroughly before using knee.

## Specifications

### Patient profile:

Body weight	Under 121lb (55kg)
Functional level	K2
Amputation level	Transfemoral or Bi-lateral TF

### Knee Specifications:

Stock number	TK-1C1
Max weight limit	121lb (55kg)
Knee weight	0.81lb (386g)
Swing controls	Friction Adjustment with Forever-Setting™ & Extension Assist Adjustment
Stability controls	Optional Manual Lock
Proximal connection	Unthreaded single hole for 3/8 Bolt
Distal connection	22mm tube clamp
Warranty	2 years, upgrade for additional 3 years

## DAW Prosthetic Knee Limited Warranty

## Contents

The knee comes with a Limited Warranty for 2-years. It covers manufacturer defects (excluding wear & tear). An additional 3 years of warranty coverage can be purchased for +15% of the original cost of the knee. See full warranty statement at:

[www.daw-usa.com/practitioner-resources/](http://www.daw-usa.com/practitioner-resources/)

### Weight limit of this knee is 121lb (55kg)

Bumpers are not under warranty.

Tight screws and a straight cut of the tubing are a must. Not following recommended use of components, including weight limit and alignment, will void the warranty. Make sure to read all instructions enclosed with the knee unit.

All repairs on the knee module must be done by a factory-trained DAW technician. Any disassembly done on the knee during the warranty period(s) will void the warranty (excluding disassembly of the extension spring housing).

## Service Under Warranty

For all component repairs call DAW Industries right away. We will ship a replacement knee the same day, which will become your patient’s new knee. The replacement component is under warranty for the time remaining on the original component.

The overnight shipping charge will be credited upon receipt of the failed knee component.

## Service Outside of Warranty

Knees not under warranty may be repaired by DAW. While any unwarranted knee is being serviced, DAW will provide a rental knee subject to availability. The DAW rental fee is listed in the price list under each knee. The rental fee covers the period DAW takes to complete the repair with ten (10) days allowed for shipping in both directions. The same rental fee will be charged every 30 days passed the initial rental fee period.

For any repair you must first contact our Technical Services at 1(800)242-8669. This will allow DAW to best understand the issue. Our Technical Support will immediately asses if the repair qualifies as a “minor” or “substantial” repair. A “minor” repair will be completed, as a courtesy, free of charge (you will just pay for return shipping). A “substantial” repair will be billed at a flat rate according to knee model. Upon return of your repaired knee, you will be invoiced for the repair charge, if any. When DAW receives the rental knee, your account will be credited for the value of the returned knee (Gold Preferred+ = FREE rental; Preferred = 33% off).

In the event your knee is unrepairable, you will be notified immediately. The rental must then be returned to DAW, 2nd day, within five (5) working days. The rental fee may be applied toward the purchase of a new DAW knee.

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ADJUSTABLE FUNCTIONS

## Recommended Order of Adjustments

1. Swing Phase Friction Adjustment
2. Extension Assist



DAW Industries

For Technical Support call (800)242-8669

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DAW Industries

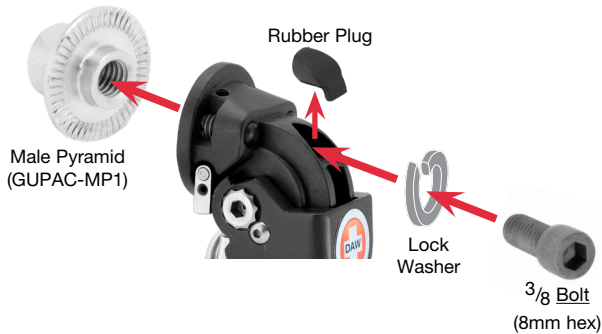
For Technical Support call (800)242-8669

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## Pyramid (GUPAC-MP1) Connection Procedure:

Pediatric weight limit: 121lbs (55kg)

- Using the included 3/8 Bolt, remove the black Spacer from the center of the top of the knee.
- Remove the Rubber Plug.
- Flex the knee approximately 90°.
- Select your desired degree of external knee rotation. Each groove is an adjustment of 6.7° (360°/54 notches).
- Attach the Pyramid (GUPAC-MP1) using the included 3/8 Bolt (8mm hex). **Apply blue Loctite 242 to the bolt and torque to 9ft-lb (12.2Nm).**
- Replace the Rubber Plug.

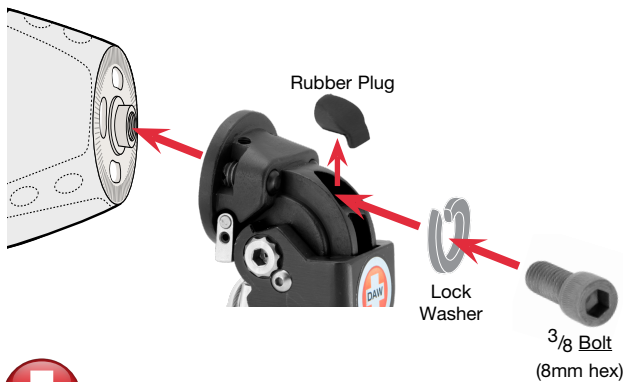


## KD Adapter (TSC-KDC-L) Connection Procedure:

Pediatric weight limit: 121lbs (55kg)

After completing the KD Adapter (TSC-KDC-L) lamination, Complete steps A. through D. from the section above “Pyramid (GUPAC-MP1) Connection Procedure”.

- Attach the KD Adapter (TSC-KDC-L) using the included 3/8 Bolt (8mm hex). **Apply blue Loctite 242 to the bolt and torque to 9ft-lb (12.2Nm).**
- Replace the Rubber Plug.



## Replacing or Trimming the Extension Assist Spring

### To replace the Extension Assist Spring:

- Loosen the Pylon Clamp Screw (5mm hex).
- Remove the pylon.
- Completely remove the Extension Assist Control Screw ① (4mm hex).
- Feed a 2.5mm or 2mm hex key through the holes of the Spring Housing ②. Using the torque provided by the hex key, unscrew the Spring Housing.
- Remove the Spring ③.
- Insert your new Spring into the Spring Housing.
- Re-screw the Spring Housing into the knee, **Hand Tighten**.
- Re-screw the Extension Assist Control Screw back in until you feel it make contact with the Spring (this is your new minimum setting).



### To trim the Extension Assist:

If your Amputee requires less Extension Assist than the lighter spring offers, trim the lighter spring:

Follow steps A. through E. above, then,

Using a grinding wheel, trim one or two coils (maximum) off one end of the spring. Smooth the trimmed end. Return the Spring to the Spring Housing, **trimmed end down**.

Continue with steps G. and H. above.

## Disengaging the Manual Lock

The manual lock mechanism can be permanently or temporarily disengaged by performing the following steps:

- Pull the Lock Release Lever up into the unlocked position and hold in place.
- Tighten the Lever Locking Screw (2mm hex).
- The lock can easily be reengaged by loosening the Lever Locking Screw.



## Wire Basket (TSC-WB) Connection Procedure:

Pediatric weight limit: 121lbs (55kg)

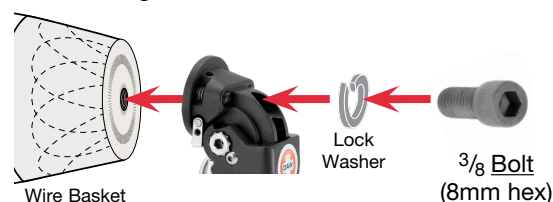
**NOTE:** Do not remove the Spacer in the top of the knee

After completing the Wire Basket Adapter (TSC-WB) lamination,

- Flex the knee approximately 90°.
- Remove the Rubber Plug.
- Select your desired degree of external knee rotation. Each groove is an adjustment of 6.7° (360°/54 grooves).
- Attach the knee to the Wire Basket Adapter using the included 3/8 Bolt (8mm hex).

**Apply blue Loctite 242 to the bolt and torque to 9ft-lb (12.2Nm)**

- Replace the Rubber Plug.



## Wire Basket (TSC-WB) with Angular Adjustment Wedges (TWP-C2) Connection Procedure:

Pediatric weight limit: 121lbs (55kg)

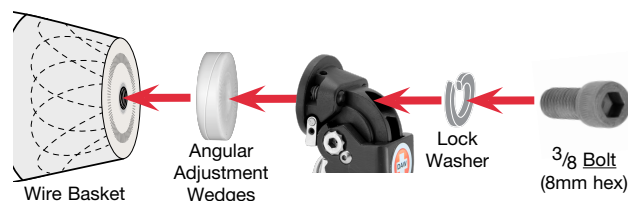
**NOTE:** Do not remove the Spacer in the top of the knee.

After completing the Wire Basket Adapter (TSC-WB) lamination,

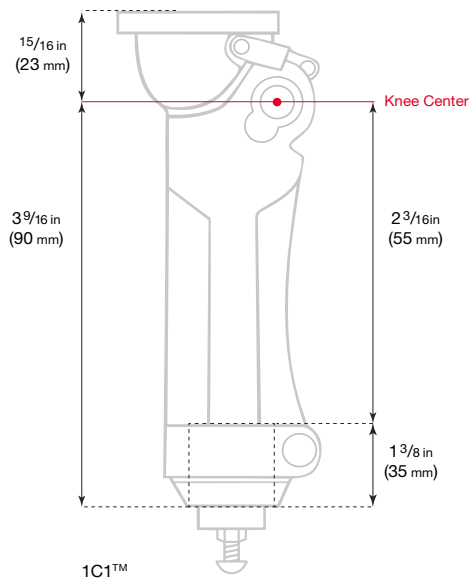
- Flex the knee approximately 90°.
- Remove the Rubber Plug.
- Select your desired degree of external knee rotation. Each groove is an adjustment of 6.7° (360°/54 grooves).
- Secure the knee and the wedges to the Wire Basket Adapter using the included 3/8 Bolt (8mm hex). Verify the ridges and grooves have seated properly. **Apply blue Loctite 242 to the bolt and torque to 9ft-lb (12.2Nm)** before walking your Patient.
- Replace the Rubber Plug.

### Adjusting the Wedge Angle:

- Loosen the Bolt (8mm hex) approx. 1 turn **counterclockwise**.
- Insert 3mm or 2.5mm hex keys into the 3mm wide hole of each wedge.
- Rotate 1 wedge at-a-time to adjust your angle. **Apply blue Loctite 242 to the bolt and torque to 9ft-lb (12.2Nm)** before walking your Patient.
- Replace the Rubber Plug.



## BUILD HEIGHT

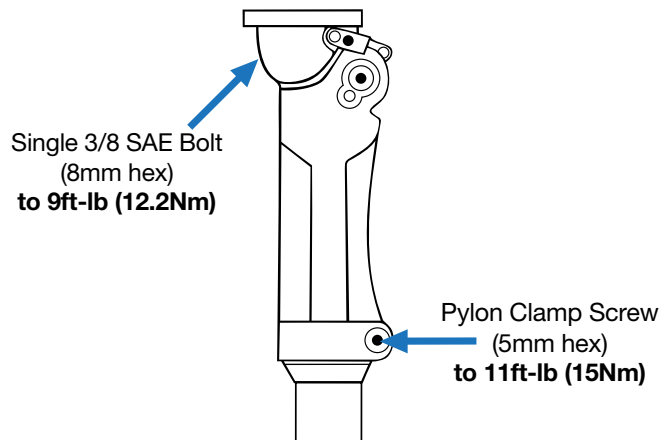


## TORQUE SETTINGS

### Important:

Use blue Loctite™ 242 on all screws referenced here. It is not recommended to use Ottobock Titanium Pylon. Do not use a spacer for height adjustment. Ensure pylon is cut straight.

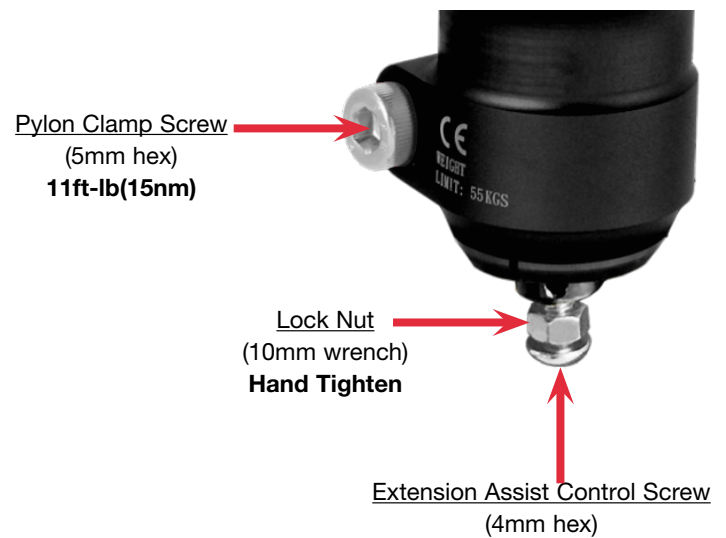
It is recommended these torques be checked within 30 days and then 6 months after your delivery of this prosthesis.



## Adjusting Extension Assist

### To Adjust Extension Assist:

- Loosen the Pylon Clamp Screw (5mm hex) and remove the Pylon
- Loosen the Lock Nut (10mm wrench)
- Turn the Extension Assist Control Screw (4mm hex):  
**Clockwise** to increase extension assist  
**Counter-clockwise** to decrease extension assist
- Re-tighten the Lock Nut, **Hand Tighten** (10mm wrench). After returning the pylon, re-tighten Pylon Clamp Screw to **11ft-lb (15Nm)**.



## Adjusting Swing Phase Friction

One Friction Adjustment Screw applies pressure to a special friction plate against the knee's anterior superior axis.

No readjustment is needed down the line as the friction plate wears from use. The mechanism is engineered to self-readjust.

### To adjust the pressure on the friction plate:

Adjust the Friction Adjustment Screw (5mm hex) as desired:

**Clockwise** to increase friction

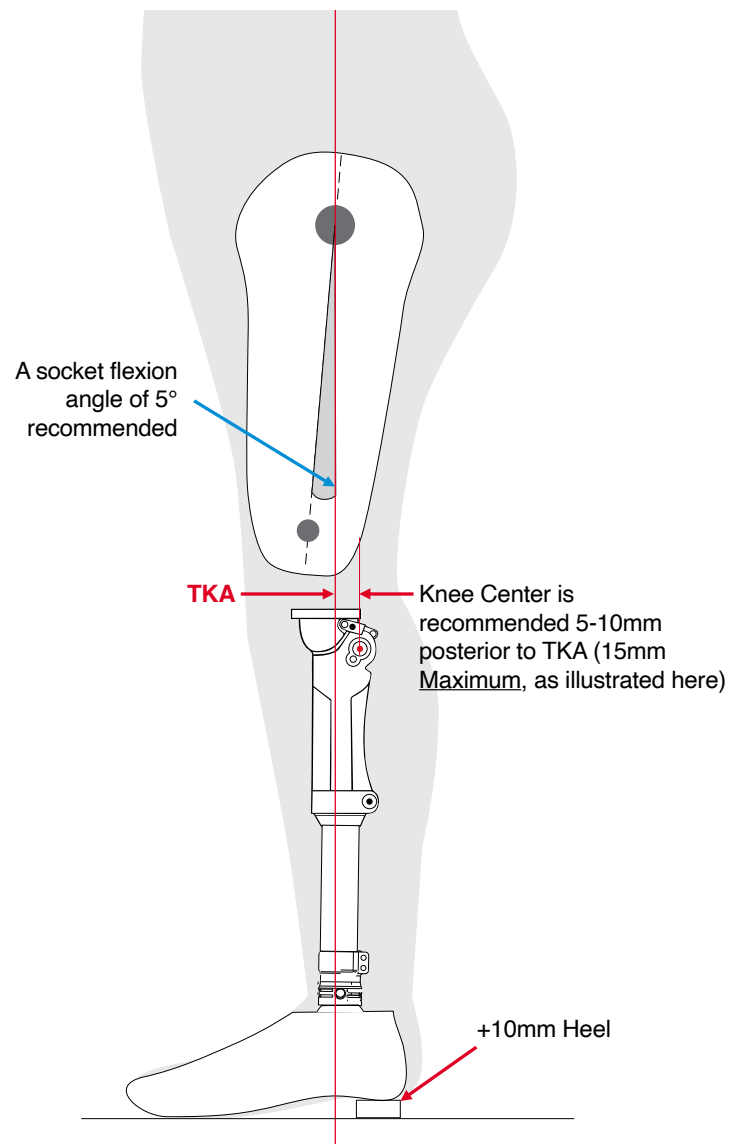
**Counter-clockwise** to decrease friction

Replace the Rubber Plug when your adjustment is completed.



## RECOMMENDED BENCH & STATIC ALIGNMENT

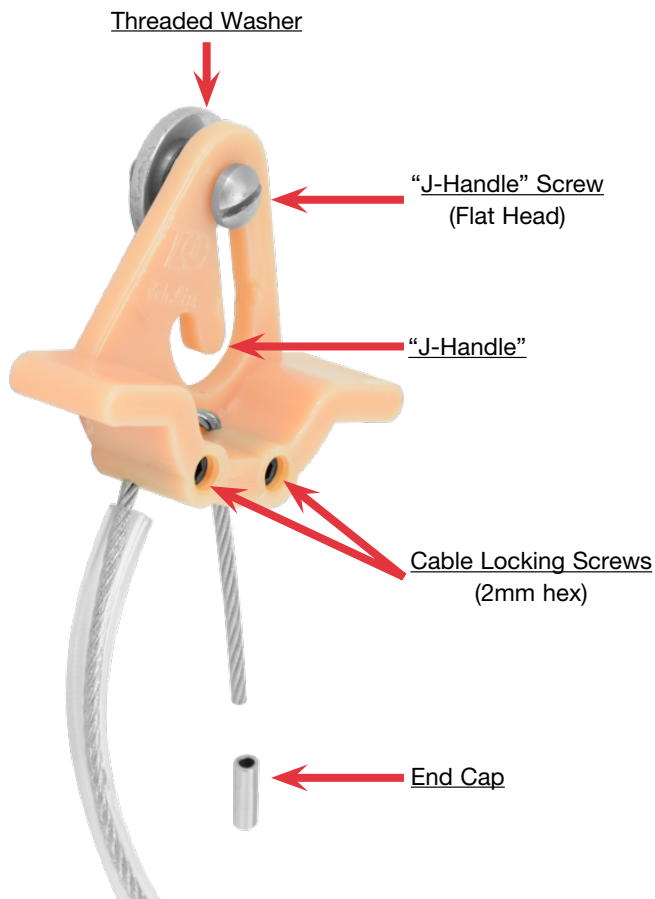
Standard alignment procedure must be observed to obtain the maximum benefits offered by this knee. All alignment references should be taken from the center of the anterior superior knee axis (commonly referred to as the Knee Center).



## Securing the Manual Lock Release Assembly to the Socket

Before proceeding with the final lamination, locate the optimum position for the “J-Handle”. (The most common location is positioned relative to the patient’s pants pocket.)

- Unscrew the Threaded Washer, place in between layers of the laminating materials.
- Laminate the socket as usual.
- Once the resin is cured, use a hot nail to clean the threads in the Threaded Washer.
- Secure the “J-Handle” Screw to the Threaded Washer.
- Loosen the Cable Locking Screws (2mm hex).
- Adjust the length of the Cable, tighten the Cable Locking Screws.
- Cut off the excess cable and swage the End Cap.



## Removing Manual Lock Free Play

The locking surfaces of the 1C1™ may wear over time causing free play to develop.

### To remove free play completely:

- Loosen the two Set Screws (2mm hex) on the knee’s anterior side.
- Turn the flat head screws (1/4in Flat head Screwdriver) on the knee’s proximal side **clockwise** until the free play is removed.
- Retighten the Set Screws.

