PRACTITIONER'S MANUAL

DAW Industries

SLK[™] 3.0 KD

Polycentric Self-Learning Microprocessor

Stock #: TGK-5PS10SLKMTX

IMPORTANT:

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

HEADQUARTERS:

9040 Kenamar Dr, Suite 404 San Diego, CA 92121 Orders: (800) 252-2828 • (858) 622-4955 Fax: (800) 856-8563 www.daw-usa.com

Technical Support (800) 252-2828

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

() DAW Industries



The **Next Generation** Microchip





SLK[™] Setting & **Adjusting Videos**

Industries

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SLK[™] 3.0 KD

Polycentric Self-Learning Microprocessor Knee

Stock #: TGK-5PS10SLKMTX

Benefits:

- No Laptop, Training or Certification Required to Program
- ✓ More Toe-Clearance in Swing vs. Single-Axis MPKs
- ✓ Custom-ICR[™] Geometric Stability Adjustment
- All New Next Generation Microchip Delivers 200 Calculations Per Second
- Shortest Build of Any MPK at Only 8 3/4in (221mm)
- Intelligent True Variable Cadence
- ✓ Up to 8-Day Battery Life or 32,000 Steps
- ✓ Ultra-Lite, Ultra-Strong Graphite Construction
- Precise Adjustability of Stance Flexion Stability
- Trouble-Free Zero Maintenance
- Proven Durability & Dependability

Popular Proximal Options



Lo-Pro Rotator[™] (#: TKR-01) Provides Rotational Adjustment Attach any 4-Hole connector

Suggested L-Codes*: L5984



4-Hole Female Pyramid w/ Rotation, Titanium (#: GUPT-F4HROT) Provides Angular & Rotational Adjustment

Browse our complete selection of Unique Components at <u>daw-usa.com/all-connectors</u>

Recommended K3 Foot



K3 Pro-Action[™] Foot Engineered for the low to moderately active K3 Individual

Provides 3 Dynamic Energy Returning Carbon Keel Options & Multi-Axial Ankle Motion with Rotation.

Suggested L-Codes*: L5981 L5986

*Please refer to the complete reimbursement disclaimer at www.daw-usa.com







IMPORTANT:

Read technical information thoroughly before using knee unit.



Specifications

Patient profile:

Body weight	Under 275lb (125kg)
Functional level	КЗ /К4
Amputation level	Knee Disarticulation

Knee Specifications:

Stock number	TGK-5PS10SLKMTX
Max weight limit	275lb (125kg)
Knee weight	2.57lb (1168g)
Swing control	Microprocessor Controlled Swing & Extension Assist Adjustment
Stability controls	Microprocessor Controlled Stance, Custom-ICR [™] Stability Adjustment & Stance Flexion Stability
Proximal connection	M6 threaded 4-hole or, Unthreaded single hole
Distal connection	30mm tube clamp
Warranty	2 years, upgrade for additional 3 years

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Popular Proximal Options(inside back cover)





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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 prothesis.



Helpful Hints

DO

- ✓ Use Loctite[™] 242 on all screws that can come loose.
- Use a torque wrench when tightening all screws to the recommended torque setting.
- ✓Use only the knee connector bolt supplied with the knee unit.
- Refer to this technical manual at all times.
- Contact Technical Support at (800) 242-8669 with any questions.

DO NOT

- Force or "jimmy" any parts together, all components should fit together properly, contact Technical Support for assistance.
- Integrate with other manufacturers components the without first reviewing with Technical Support.
- **X**Fit on patients in excess of knee's max weight limit.
- Do any maintenance on this knee without first reviewing with DAW Industries.
- Disassemble any portion of this knee component (unless expressly described in this manual) as it will void the warranty.
- XUse excessive powder inside of foam cover.

Maximum Flexion Bumper

After Completing **Custom-ICR Stability** Adjustment, Install the Included <u>Maximum Flexion Bumper</u> to the back of your SLK.



DAW[®] Industries

For Technical Support call (800)252-2828

Trouble Shooting

Symptom		Page	
Terminal Impact	1. 2.	Check minor adjustment of the extension flexion Adjust, cut, or remove extension spring.	7 14
No Swing Phase Dampening Control	1. 2.	Check battery Check that wireless monitor is on "Auto: Yes"	13
Clicking, Grinding, or Squeaking Noise	1.	Remove, clean, and/or replace extension spring.	14
Pylon Turning	1. 2. 3. 4.	Tighten pylon clamp to 11ft-lbs Invert pylon Some other manufacturers diameters not to spec) frequent problem with O.B. Replace pylon (undersized)	2
Pylon is too tight	1.	Replace pylon (oversized)	2

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).









Why is Custom-ICR Better?

Improve Stability without Altering Alignment

Without altering your alignment, the Custom-ICR[™] Stability Adjustment optimizes the location of this knee's ICR to optimize stability and minimize energy consumption (see next page to optimize your Patient's Custom-ICR setting).

Watch the "Custom-ICR Setting" video at <u>daw-usa.com/videos</u>

What is a 4-Bar Knee's ICR? And why is its location important?

A Polycentric knee's Instantaneous Center of Rotation or ICR is a theoretical point located at the intersection of 2 lines which pass through the axes and continue proximally (see fig. below).

The ICR location of any polycentric knee determines two factors: The knee's Level of Inherent Stability in stance phase Your Patient's energy consumption.

Why is an Adjustable ICR Position advantageous?

A traditional 4-Bar knee's ICR location is not adjustable. If it is located too far posterior for your Patient's individual biomechanics, your Patient will consume excessive energy.

With this 5-Bar Custom-ICR knee, your Patient will consume the absolute minimum amount of energy.



The optimal location of the ICR is the area where the Amputee applies force to their socket wall during stance phase. It is most commonly, $\frac{5}{8}$ down the length of the femur.



DAW Prosthetic Knee Limited Warrranty

The knee comes with a Limited Warranty for 2-years. It covers manufacturing 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/

Weight limit of this knee is 275lb (125kg)

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 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 dissasembly of the extension spring housing).

Service Under Warranty

For all knee concerns call DAW's Customer Support Team at (800)252-2828 right away. We will provide a return shipping label to you free of charge. Your knee will be fully reconditioned by a factory trained technician. If available, we will provide a rental knee (the rental knee may not be the same knee model as the model you are sending in). Please see the "Rental Knee Policy" section below.

Service Outside of Warranty

Your knee will be fully reconditioned for a flat rate: \$1695 for Microprocessor knees, \$695 for variable cadence (K3/ K4) non-MPK knees, and \$395 for friction swing control (K1/ K2) knees. Upon return of your reconditioned knee, you will be invoiced for the repair charges plus shipping charges from DAW to you. When DAW receives the rental knee, your account will be credited for the value of the returned knee (Gold Preferred+ Customers = FREE rental, Preferred Customers = 33% off rental fee).

If available, we will provide a rental knee (the rental knee may not be the same knee model as the model you are sending in). If your DAW knee is under warranty, there will be no cost up front for the rental knee.

If your DAW knee is no longer under warranty, we may require a deposit before your rental knee ships out. If the rental knee is not returned timely, you will be required to pay the invoice for the rental knee at the price of a new knee.

In the event your knee is unrepairable, you will be notified immediately. The rental must then be returned to DAW within 10 working days. If the rental knee is not returned timely, you will be required to pay the invoice for the rental knee at the price of a new knee.



DAWSkin **Protective Cover System**

Benefits:

- Off the Shelf. .
- BK, AK and Discontinuous 2-Part AK to choose from. •
- Slips on and off easily. •
- Soft, flexible and durable. .
- Skin-like texture and feel. .
- Does not interfere with function of knee.
- Seven skin tones + 1 Graphite Black (Blush, Fair, Caucasian, Suntan, Dark Suntan, Light Black, Black)

DAW*SKIN* & DAWtoe*SKIN* MEGA-STRETCH **STANDARD** & SIZING CHART



SIZE	ADOLESCENT	PETITE	SMALL	MEDIUM	LARGE
CIRC.	14 to 19 cm	20 to 25 cm	21 to 24 cm	25 to 27 cm	28 to 30 cm
в	1/ ₈ 1/ ₄	11 ³⁄4 to 13 in	12 ¾ to 14 ¼ in	14 to 16 ¼ in	16 ¹ / ₂ to 18 ³ / ₄ in
	(23 to 26 cm)	(29 to 33 cm)	(32 to 36 cm)	(35 to 41 cm)	(41 to 47 cm)
С	5 ¹ ⁄ ₄ to 7 in	7 ¹ ⁄ ₄ to 8 ¹ ⁄ ₂ in	8 ¹ ⁄ ₂ to 9 ¹ ⁄ ₂ in	9 to 10 ¹ ⁄ ₄ in	9 ³ ⁄ ₄ to 11 ¹ ⁄ ₂ in
	(13 to 18 cm)	(18 to 21 cm)	(21 to 24 cm)	(22 to 26 cm)	(24 to 29 cm)
LENGTH	BK 20 in (50 cm)	BK 20 in (50 cm)	BK 21 in (53 cm)	BK 23 in (58 cm)	BK 24 in (60 cm)
	AK 27 in (68 cm)	AK 29 in (73 cm)	AK 29 in (73 cm)	AK 31 in (78 cm)	AK 34 in (85 cm)

PRODUCT AVAILABILITY	вк	AK	AK2-PART
DAWSKIN ORIGINAL	ALL SIZES	ALL SIZES	NO
DAWSKIN MEGASTRETCH	ALL SIZES	ALL SIZES	ALL SIZES
DAWtoeSKIN MEGASTRETCH	ALL SIZES (except petite & adolescent)	ALL SIZES (except petite & adolescent)	ALL SIZES (except petite & adolescent)
DAWsplitSKIN MEGASTRETCH	ALL SIZES (except petite & adolescent)	ALL SIZES (except petite & adolescent)	ALL SIZES (except petite & adolescent)

MEDICARE L-CODES

- BK: L 5962 Addition, Endoskeletal System, Below Knee Flexible Protective Outer Surface Covering System.
- AK: L 5964 Addition, Endoskeletal System, Above Knee Flexible Protective Outer Surface Covering System.



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Custom-ICR Adjustment

During Bench or Static Alignment:

Adjust the setting to your patient's residual femoral length.

- A. Loosen the Set Screw(2mm)
- The factory Custom-ICR setting is set for an Amputee B with an 8-inch residual femur. To adjust the Custom-ICR setting to your patient's residual femur length, turn the Custom-ICR Adjustment(5mm hex):

1/4 turn **clockwise** for every inch of femur shorter than 8. Or...

1/4 turn counter-clockwise for every inch of femur longer than 8.

C. Re-tighten the Set Screw before dynamic alignment.



During Dynamic Alignment:

Adjust the setting to your Patient's weak or strong hip extensor strength.

> Turn clockwise to provide more stability to compensate for weaker hip extensors

Or... If patient is hanging up in swing phase,

Turn counter-clockwise to provide more efficiency to a Patient with stronger hip extensors.

Factory Setting:

Adjust the Custom-ICR Adjustment Screw (5mm Hex) until it rests flush with its surrounding material.



FUNCTIONAL

 Patented design – Maximum flexion without interference

DURABLE

Extremely resilient

COSMETIC

· 4 Sizes - easily shaped and modified

VERSATILE

· Adapts to any AK modular system

COST-EFFECTIVE

 Superior cosmesis in a fraction of the time

Size	X SMALL	SMALL	MEDIUM	LARGE
RIGHT	TFC-DFXSR	TFC-DFSR	TFC-DFMR	TFC-DFLR
LEFT	TFC-DFXSL	TFC-DFSL	TFC-DFML	TFC-DFLL
Α	16 in (41cm)	19 in (48cm)	20 1/2 in (52cm)	21 1/2 in (55cm)
В	12 1/2 in (32cm)	15 in (38cm)	16 1/2 in (42cm)	17 1/2 in (44cm)
C	11 3/4 in (30cm)	13 in (33cm)	14 1/2 in (37cm)	15 ½ in (39cm)
D	7 1/2 in (19cm)	8 in (20cm)	9 in (23cm)	10 in (25cm)
Length	29 in (74cm)	33 in (84cm)	35 in (89cm)	37 1/2 in (95cm)

Do Not Forget To Order DAWSkin™

TWO-PART DISCONTINUOUS

TFC-EG5POSLKL (left) • TFC-EG5POSLKR (right)

- Exoskeletal durability and cosmesis with • endoskeletal light weight modularity.
- No interference with knee function.
- Excellent for knee disarticulation.
- Allows for kneeling without damage to cover.
- Inside is pre-cut for knee.

Each Cover Includes:

- Custom hard foam rubber knee cap.
- Pre-shaped plastazote tibial form.
- Inner soft form "filler" to protect the knee and prevent play between the knee and cover.



Industries





Stance Flexion Adjustment Screws (Flathead Screwdriver)

Fig.2 (After Red Tabs Removed)





IMPORTANT:

Note:

Fig.1

RED TABS

Adjusting Stance Flexion

General Stance Flexion Adjustment:

RED TABS – What are they for?

RED TABS should be removed before dynamic alignment.

Counter-Clockwise for less resistance to Stance Flexion (and a higher max Stance Flexion Angle)

(and a lower max Stance Flexion Angle)

The red tabs allow you to accurately adjust to the Maximum

Stance Flexion setting while ensuring full contact remains between the Middle Posterior Axis and the Brass Cylinder given your current Custom-ICR[™] Stability setting.

Equally turn the Stance Flexion Adjustment Screws:

Clockwise for more resistance to Stance Flexion

Replacing or Trimming the Extension Assist Spring

How to Shorten, Remove, or Replace

In some instances, you may choose to shorten the existing spring or replace the existing spring with a heavier or lighter one.

To Remove the Spring:

1. Remove pylon.

housing.

- 2. Using C-Clip Pliers, remove C-Clip 1 .
- 3. Using 6mm Allen-Key, completely unscrew the plug 2 from the bottom of the spring housing.
- 4. Gently remove the extension spring 3 from the housing (flexing and extending the knee will help).
- 5. Make necessary adjustment to spring (cutting two coils max). or replace the spring 3 with a new spring. Lightly grease the spring before returning it to the
- 6. Return the 6mm plug 2 to the spring housing ensuring to also replace the C-Clip ①.

Stairs, Ramps and Stumble Control Function

The high resistance that is required for negotiating ramps and stairs is preprogrammed into resistance level 9 of the SLK Multi-Matrix. To utilize these settings properly, the Amputee should walk on the knee for at least 3 days. The recommended training for an Amputee for ramps & stairs after 3 days of walking is as follows:

- 1. Press the (A/M) (A/M) button once. Confirm the appearance of a dot in the Top Window.
- 2. Scroll to level 9 using the up arrow. (\mathbf{A})
- 3. Have your patient walk down a slight ramp several times. Once they feel confident on the slight ramp, have them walk on a steeper ramp.
- 4. After the patient has negotiated the ramps 20 times, they may try stairs. Unless extremely experienced, have them start with stairs that have hand rails.
- 5. When Ramp and Stair Training is complete, press the (A/M) button once so the dot in the Top Window disappears. The knee is now in control of the level of resistance and the Amputee can negotiate ramps and stairs.



Industries

Adjusting Extension Assist

To Adjust Extension Assist:

- A. Loosen the Pylon Clamp Screw (5mm hex) and remove the Pylon
- B. Loosen the Lock Nut (12mm wrench)
- C. Turn the Extension Assist Control Screw (5mm hex): Clockwise to increase extension assist Counter-clockwise to decrease extension assist
- D. Re-tighten the Lock Nut, Hand Tighten (12mm wrench). After returning the pylon, re-tighten Pylon Clamp Screw to 11ft-lb (15Nm).



Extension Assist Control Screw (6mm hex)

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Maximum Flexion Bumper

After Completing Custom-ICR Stability Adjustment, Install the Included Maximum Flexion Bumper to the back of your SLK.



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*Impaction is an algorithmic representation of velocities in 3 planes.



Patient's Use Of The Remote

The SLK's remote allows the patient to wirelessly monitor the charge of the battery and manually adjust flexion resistance of the knee.

To adjust flexion resistance in Manual Mode: (See fig. a below)

- 1. Press the (W) (A/M) button one time, remote will beep once. Verify that a dot has appeared in the lower right-hand corner of the Top Window.
- 2. Using the (a) (up/down) arrows scroll to the desired resistance level.
- 3. Pressing the (W) (A/M) button again will return the SLK to Auto Mode, the dot in the Top Window will disappear.



Top Window indicates resistance level.

Auto/Manual Mode Selector.

Increase/Decrease Resistance: level (1~9) of the knee joint. (in Manual Mode only.)

Bluetooth Connection Indicator: Solid Blue = Connected. Blinking = Pairing.

Knee / Remote Charge Level Indicators:

Solid Green = Fully charged. Blinking Green = 20% charge remianing.

Off = Sleep-Mode or fully depleted battery. Flex the knee or press any button on the remote to wake it up from Sleep-Mode.

Solid Blue = Charging. Recharging a fully depleted battery takes 3.5 hours.

The battery charge of the SLK 3.0 & SLK 3.0 KD lasts approximately 32,000 Steps (or 8 days for a moderately

NOTES:

• If the knee is motionless for 30 seconds, it will enter sleep-mode.

• The remote enters sleep-mode if no buttons are pressed for 2 minutes.

• After removing the charging cable, your SLK 3.0 will begin a 10 second reboot sequence.



Recommended Foot



- Dynamic energy return, Multi-Axis Ankle w/ rotation
- ✓ 3 split carbon keel stiffnesses: A, B, or C (see keel selection chart)
- Adjustable dorsi and plantar flexion
- ✓ Sizes 22-28
- Caucasian or Light Black foot shells
- Includes: foot shell, spectra sock, 3 bumper durometers

KEE	L SELECTION (HART
Limb Length	0 to 4"	0
(select one)	4 to 6"	1
	6 to 8"	2
	8 to 11"	3
	11" and up	4
Muscle Strength	Moderate	1
(select one)	Strong	2
	Powerful	3
Activity	Low	1
(select one)	Medium	2
	High	3
Patient Weight	up to 100lb	0
(select one)	100 to 150lb	1
	150 to 200lb	2
	200 to 250lb	3
	250 to 300lb	4
Add Scores For	2 to 7	Stiffness A
Keel Selection	8 to 12	Stiffness B
	13 to 14	Stiffness C

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Entering The Desired Matrix Using Remote (Prosthetists Only)

The knee is factory set to Matrix 4. For help with this step, watch the video "Choosing & Entering Your Patient's Matrix" in the Product Support section of the DAW Website.

- 1. Turn on the remote by pressing any button.
- Confirm that the Bluetooth Indicator in the bottom right-2. hand corner of the remote is solid blue indicating the remote and knee are connected. If the Bluetooth Indicator is blinking, flex the knee a few times until the light remains solid, (see fig. b.)
- Press and hold the (A/M) button until the Top 3. Window shows a blinking dot in the lower right-hand corner. The Remote will beep twice.



- 4. Using the up/down arrows, O Scroll to the desired Matrix (1 to 5). See page 8 for help selecting the ideal Matrix for your patient.
- 5. To enter your selection, press the (A/M) (A/M) button once more. The Top Window will show a "0". The Remote will beep twice. Your selection is confirmed.
- 6. The knee will now perform within your selected matrix. Should you wish to change your selected matrix, repeat steps 3 through 5.





Top Window indicates current

Matrix Mode (dot blinking)

Using the up/down arrows, scroll to the desired Matrix (1 to 5).

Bluetooth Indicator is: Blue (connected) Blinking blue (pairing)





SLK[™] 3.0 KD Proximal Attachments Selector Chart





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