



INTRODUCTION

The PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock are 4-bar polycentric knees that utilize a mechanical locking system with a manually operated release lever. The PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock are lightweight and durable. Their designs incorporate constant friction braking mechanisms and spring-loaded extension assists for a natural gait. The PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock are appropriate for K2 amputees with medium-low to low activity levels.

Product Code	Description	Weight Limit
SSK602L	PC Friction Control Knee with Lock	136 kg • 300 lb
SSK604L	PC KD Friction Control Knee with Lock	100 kg • 220 lb
SSK604L-DIS	Replacement Lamination Bracket for SSK604L	100 kg • 220 lb
SSK604L-PYR	Pyramid Adapter for SSK604L	100 kg • 220 lb
SSK602L-KIT	Refurbishment Kit for SSK602L	n/a
SSK604L-KIT	Refurbishment Kit for SSK604L	n/a

LIMITATIONS

The PC Friction Control Knee with Lock (SSK602L) requires a clearance of 31.8 mm (1.25") from the center of the knee to the mounting surface. This knee reaches full flexion at 145°.

The PC KD Friction Control Knee with Lock (SSK604L) requires a clearance of 18.6 mm (0.54") from the center of the knee to the mounting surface. This knee reaches full flexion at 145°.

INSTALLATION AND USE

Warning: Never modify the PC Friction Control Knee with Lock or PC KD Friction Control Knee with Lock. Do not use bolts other than those supplied or approved by Trulife for use with the PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock. Any modifications void the warranty and could contribute to an unexpected failure.

Warning: Do not expose knee to water. If the knee comes in contact with water, the extension assist control should be thoroughly evaluated for functionality.

Socket Attachment for the SSK602L

The SSK602L is incorporated with a pyramid and cannot be modified to accept a disarticulation bracket.

Socket Attachment for the SSK604L

The Knee Disarticulation Mounting Bracket is packaged with the SSK604L and is designed to be laminated into place. The replacement Lamination Bracket is SSK604L-DIS. An optional pyramid adapter (SSK604L-PYR) is also available for the SSK604L.

1. Roughen the mounting area of the socket surface with sandpaper to ensure the adherence of the lamination.
2. Mark the position of the bracket in the appropriate alignment on the laminated socket.
3. Bend the metal mounting bracket to closely match the contour of the socket in the desired position while maintaining correct alignment. Remove any bending iron impressions from the surface of the metal bracket.
4. Remove the mounting bracket from the knee by loosening the two set screws located posteriorly on the bracket. Remove the set screws and set them aside until the knee is to be assembled.





5. Prepare the mounting bracket for lamination. Use clay to protect the attachment surface and screw holes from filling with laminate. Glue Kemblo or Pelite over the attachment surface and screw holes to further prevent resin intrusion.
6. Temporarily secure the mounting bracket into place with methylmethacrylate or epoxy. If necessary, the mounting bracket can be riveted into place through the four mounting holes for additional strength.
Caution: Test walking on an unreinforced Mounting Bracket after temporarily securing it in place may cause failure.
7. Secure the mounting bracket to the socket using several layers of fiberglass casting tape as a temporary reinforcement. When satisfactory alignment has been achieved, remove the fiberglass casting tape before application of the definitive lamination.
8. Laminate the mounting bracket to the socket surface using an appropriately strong layup for the individual patient.
9. Trim the hardened lamination to expose the distal mounting surface for the posterior set screws. Do not cut or nick the mounting bracket when trimming the laminate away from the distal surfaces.
10. Reinstall the knee unit into the mounting bracket so that the label is anterior facing.
11. Tighten the set screws to 12.2 Nm (9 ft-lbs or 108 in-lbs). A 4 mm hex head driver and torque wrench should be used. To maintain mounting bolt tightness, apply Loctite® 242 removable thread locking compound to the bolt threads. Note that the thread locking compound will require several hours to cure completely.

Loctite®: When adjusting alignment of bolts or screws that have been assembled with Loctite®, the threads of the screw and screw hole should be cleaned free of any Loctite® residue with a mild solvent such as alcohol. After cleaning reapply new Loctite®; this will ensure the proper torque value of the fasteners are set when retightening the fastener to the specified torque values.

Rotational Adjustment of the SSK602L

The rotational orientation of the SSK602LPC Friction Control Knee with Lock can be manipulated only through the use of a lamination adapter (such as the SCA235) or a socket adapter (such as the SCA214) when used with either a Seattle Laminating Block (SLB210, SLB220, SLB230) or a Seattle Mounting Plate (SSA230).

Adjustment of the SSK604L

Rotational adjustment of the SSK604L PC KD Friction Control Knee with Lock can be achieved by alternately loosening and tightening the two adjustment screws located on the posterior surface of the mounting bracket. There are 10 degrees +/- of internal/external rotation available. Once the desired level of rotation has been achieved, add loctite 242 removable thread locking compound, tighten the set screws with a 4mm wrench, and apply torque to 12.2 Nm (9 ft-lbs or 108 in-lbs).

Anterior-posterior adjustment may be obtained by loosening the distal screw of the mounting bracket connector and sliding the connector anteriorly or posteriorly as needed within the 5 mm (.20") total gap. Use a torque wrench with an 8 mm hex bit to tighten the 10 mm screw to 14.1 Nm (10.4 ft-lbs or 125 in-lbs).

Pylon Attachment

1. Cut the pylon to the appropriate length. The cut must be smooth and level.
2. Remove any burrs from the end of the pylon with sandpaper.
3. Insert the pylon into the distal end of the prosthetic knee.
4. Apply Loctite® 242 removable thread-locking compound to the clamp bolt. Loctite® requires several hours to cure completely.
5. Tighten the 5 mm clamp bolt assembly with a torque wrench to 12.2 Nm (9 ft-lbs or 108 in-lbs).

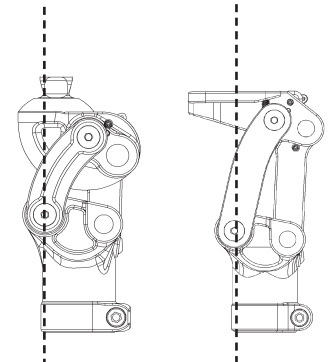




Caution: Never permit a patient to walk on a partially inserted or shimmed pylon. This will void the warranty and could contribute to component failure.

Knee Alignment

Use standard bench alignment techniques to obtain the best performance from the PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock. Alignment reference (knee center) should be taken from the distal anterior axis of the knee, as indicated in **FIGURE 1**.



SSK602L SSK604L
FIGURE 1: Knee alignment

Knee Adjustment

The PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock are packaged with the Friction Adjustment and Extension Assist Adjustment Screws adjusted to nominal (factory) settings.

Friction Resistance determines the overall resistance to movement for both extension and flexion. The Extension Assist applies additional force during the extension portion of swing.

Extension Assist Adjustment (requires a 5 mm allen wrench)

1. Remove the pylon from the distal end of the prosthetic knee.
2. Locate the Extension Assist Screw in the distal end of the prosthetic knee (**FIGURE 2**).
3. Rotate the Extension Assist Screw clockwise to increase the force of the extension assist.
4. Rotate the Extension Assist Screw counterclockwise to decrease the force of the extension assist.
5. Install the pylon after adjustment.
6. Tighten the 5 mm clamp bolt assembly with a torque wrench to 12.2 Nm (9 ft-lbs or 108 in-lbs).

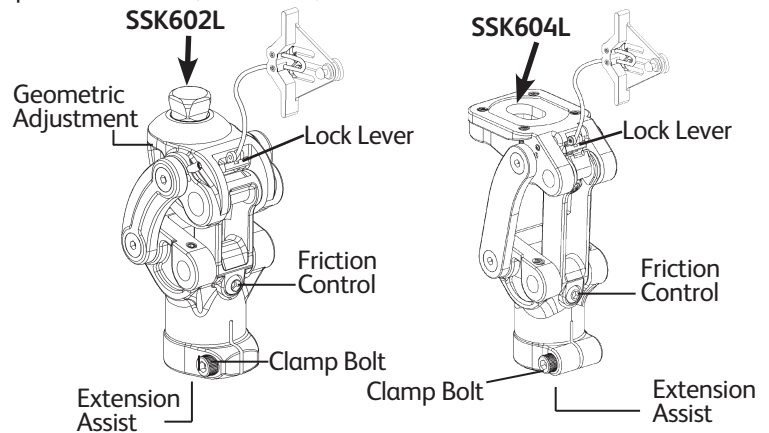


FIGURE 2: Friction and extension controls for PC Friction Control Knees and PC KD Friction Control Knees

Friction Resistance Adjustment (requires a 4 mm allen wrench)

1. Locate the Friction Bar on the posterior side of the knee (**FIGURE 2**).
2. Locate the Friction Adjustment Screw on the Friction Bar (**FIGURE 2**).
3. Rotate the Friction Adjustment Screw clockwise to increase the overall resistance to movement.
4. Rotate the Friction Adjustment Screw counterclockwise to decrease the overall resistance to movement.

Warning: Failure to follow the installation and use procedures could contribute to an unexpected failure that would subject the patient to an unnecessary risk of serious personal injury.

Hyperextension impact is prevented by an extension stop bumper which is located under the knee cap. If the bumper wears over time, it may be replaced by prying off the bumper. Replacement bumpers are included in SSK602L-KIT and SSK604L-KIT.





Extension spring adjustment for more active patients may be accomplished by replacing the extension spring from within the extension spring housing. If the spring wears over time, it may be replaced as follows:

1. Loosen the clamping bolt securing the pylon.
2. Remove the pylon.
3. Remove the spring by unscrewing the cap at the distal end of the spring tube with a flathead screwdriver.
4. Remove or adjust the spring as necessary.
5. Replace the cap on the spring tube and tighten until flush with the spring tube.
6. Insert the pylon and tighten the 5 mm clamping assembly to 12.2 Nm (9 ft-lbs or 108 in-lbs).

Warning: Failure to follow the installation and use procedures set forth above may lead to structural failure of the components subjecting the user to a risk of serious personal injury.

Locking Mechanism

The SSK602LPC Friction Control Knee with Lock and SSK604L PC KD Friction Control Knee with Lock has a lock that can be manually released when knee flexion is desired by using the lock cable. This lock can also be set open to allow free motion by lifting the lock lever and tightening the Anti-lock Screw located on the side of the knee using a 2mm allen wrench. Use Loctite® 242 on this screw to keep it from backing out. (See Loctite® precautions above.)

1. Once the knee is assembled, locate an appropriate location on the socket for the locking mechanism handle and attaching it to the socket with the screw provided.
2. Adjust the cable at the handle by loosening the set screw with a 2mm allen wrench and pulling the cable taut leaving minimal slack.
3. Retighten the set screw and trim excess cable, if necessary.
4. Fine tune the adjustment by loosening the attachment screw and sliding the handle along the slot as needed.

MAINTENANCE

The extension stop bumper and the extension spring are both available in a replacement kit (SSK602L-KIT/SSK604L-KIT).

- Service the product at regular intervals.
- Inspect the knee for excessive wear or visual damage during normal consultations.
- Instruct patient to discontinue use and contact their physician or prosthetist if the prosthesis starts to make noise or if they experience any change in function.
- Instruct the patient to notify their physician or prosthetist if they gain a significant amount of weight.

QUESTIONS

Contact Customer Service in the U.S. at 888-878-1238, or fax 888-878-1237

If calling from outside the U.S., contact Customer Service at 360-697-5656, or fax 360-697-6843

Visit Trulife online at www.trulife.com





LIMITED WARRANTY

Trulife warrants that PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock will be free from defects in material and workmanship for two (2) years from the date of installation.

This warranty will not apply if the product has been damaged by misuse, abuse, neglect, improper care, failure to follow instructions, abnormal wear and tear, or in the event that the PC Friction Control Knee with Lock and PC KD Friction Control Knee with Lock have been modified/repared by persons unauthorized by Trulife.

If a defect in material or workmanship is found during the warranty period, Trulife will, at Trulife's option, either repair or replace the product. If it is not possible to repair or replace the product, Trulife will be limited to refunding the purchase price.

Trulife will not be liable under any legal theory for any direct, indirect, special, incidental or consequential damages arising from the use of or inability to use this product.

The application guidelines for this Trulife product are for the use of and by certified, qualified practitioner only. Patients are not to attempt to apply or adjust the item unless expressly instructed to do so by the practitioner responsible for the prescription and/or initial fitting of the device. All patient questions should be referred to the practitioner and not to the manufacturer. The manufacturer warrants only that the enclosed product has been inspected for quality and can be effective for certain indications, but final decisions and ongoing monitoring must be made by the prosthetic professional(s) prescribing and/or fitting the device to determine its effectiveness for an individual patient. Patient compliance is an integral part of the entire protocol and must be adhered to in order to avoid potential problems and to maximize the effectiveness of the prescribed product.

As a condition of the sale of any Trulife product, this prosthesis is restricted to a "Single Patient Use Only" by the originally fitted patient in order to protect the care provider and the patient against potentially adverse consequences of infectious disease transmission, material instability in adapting to the configuration of the original user and/or decrease in effectivity. Any express or implied warranties are voided if the product is reused or fitted to another patient. Additionally, a license of right to use under any relevant patents pertaining to the product is terminated with the cessation of use by the original patient. As with all Trulife products, this product must be prescribed and applied by a qualified practitioner to determine it meets the needs of the particular patient and accomplishes the desired results.

