

Surgical Technique for
JOURNEY II BCS with
SYNC Performance
Instruments



JOURNEY[®] II BCS
Bi-Cruciate Stabilized Knee System

SYNC
Performance Instruments



JOURNEY[◇] II BCS with SYNC Performance Instruments

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Nota Bene

The technique description herein is made available to the healthcare professional to illustrate the suggested treatment for the uncomplicated procedure. In the final analysis, the preferred treatment is that which addresses the needs of the specific patient. For more product, health and safety information, review the package inserts for each device.

Contributing Surgeons

Johan Bellemans, MD, PhD

Professor in Orthopaedics and Traumatology, University Hasselt
Hasselt, Belgium

Fred D Cushner, MD

Insall Scott Kelly Institute for Orthopaedic and Sports Medicine
New York, NY

Jonathan Garino, MD

Paoli Memorial Hospital
Paoli, Pennsylvania

Paul Greenlaw, MD

Carolina Orthopaedic and Sports Medicine

Steven Haas, MD

Chief of the Knee Service Hospital for Special Surgery
New York, NY

Michael Ries, MD

Fellowship Director, Reno Orthopedic Clinic
Reno, Nevada

Mark A Snyder, MD

Director, Orthopaedic Center of Excellence Good Samaritan Hospital Director,
Adult Reconstructive Division Wellington Orthopaedic and Sports Medicine Foundation
Cincinnati, Ohio

Jan Victor, MD

Professor of Orthopaedic Chairman of the Department of Orthopaedics and
Traumatology Ghent University Hospital
Ghent, Belgium

Timothy Wilton, MA, FRACS

Consultant Orthopaedic Surgery Derbyshire Royal Infirmary
Derby, UK

Dr. Nick Sotereanos

Allegheny General Hospital
Pittsburgh, PA

This surgical technique was prepared under the guidance of the contributor surgeons listed in this technique and under close collaboration with each physician. It contains a summary of medical techniques and opinions based upon their training and expertise in the field, along with their knowledge of Smith+Nephew products. It is provided for educational and informational purposes only. Smith+Nephew does not provide medical advice and it is not intended to serve as such. It is the responsibility of the treating physician to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on the products in this surgical technique, including indications for use, contraindications, effects, precautions and warnings, please consult the products' Instructions for Use (IFU).

Introduction

The JOURNEY[®] II Total Knee System was designed to help patients rediscover their normal through a smoother recovery, improved function and higher patient satisfaction.^{1-7*} These improvements are made possible by designing JOURNEY II TKA to replicate the shapes, position and motion of the normal healthy knee.^{8-10**}

Patient outcomes can be directly related to accurate surgical technique and precision instrumentation. The SYNC Performance Instruments have been developed to assist surgeons in obtaining accurate and reproducible results and reducing OR time.

While it has been the designers' objective to develop accurate, easy-to-use instrumentation, each surgeon must evaluate the appropriateness of the following technique based on his or her medical training, experience and patient evaluation.

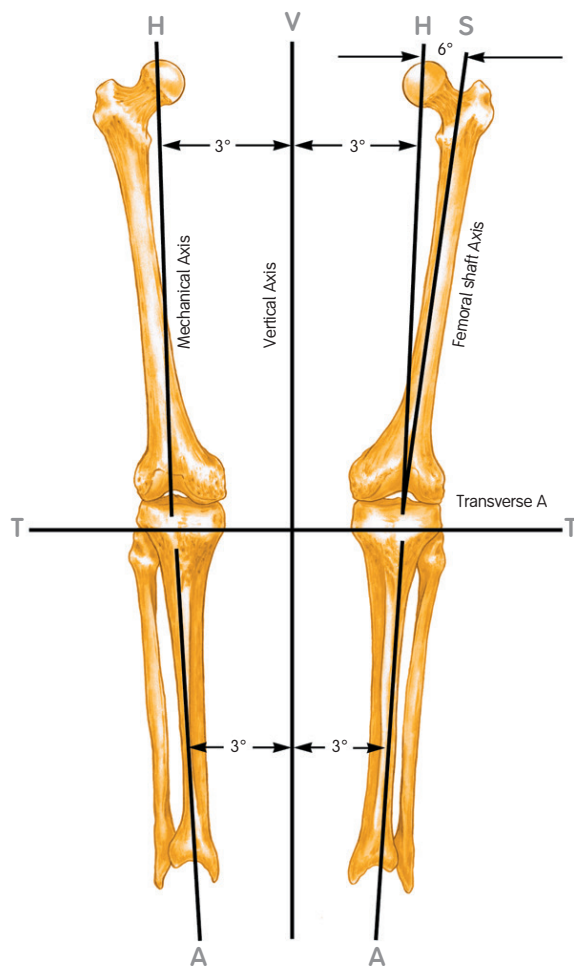
Prologue

Preoperative planning

Determine the angle between the anatomical and the mechanical axis. This measurement will be used intraoperatively to select the appropriate valgus angle so that correct limb alignment is restored. Beware of misleading angles in knees with a flexion contracture or rotated lower extremities.

Note It is recommended to use preoperative templating to determine femoral size because sizes 1-8 and 9-10 have different resection depths.

For patients that present with significant varus or valgus deformities ($> 15^\circ$), morbid obesity or deficient collateral ligaments consider whether additional implant constraint is more appropriate. If patients with the above mentioned conditions are scheduled for a JOURNEY[®] II BCS then assess the flexion space under full ligament tension (e.g., laminar spreaders) with the patella reduced and consider having a constrained implant option on hand.



Recommended Sawblades

Cat. No.	Description
7151-2901	Stryker 2000 3/4" fanned
7151-2903	Amsco Hall 3/4" fanned
7151-2904	2M 3/4" fanned
7151-2905	Stryker 2000 1/2" straight
7151-2907	Amsco Hall 1/2" straight
7151-2908	3M 1/2" straight
7151-2910	VersiPower Plus 3/4" fanned
7151-2911	PowerPro 3/4" fanned

Or any 0.053" or 1.35mm thickness sawblade

Instrument assembly

Note Surgical Technique for alignment alternative using the Fixed Instrumentation can be found on page 35.

IM assembly

1. Attach the Adjustable Valgus Bridge to the Adjustable Valgus Guide. Dial on the bridge should point towards the button on the Valgus Guide (Figure 1).

Note The Adjustable Valgus Bridge was designed to move anterior and posterior within the Adjustable Valgus Guide to accommodate various patient morphology.

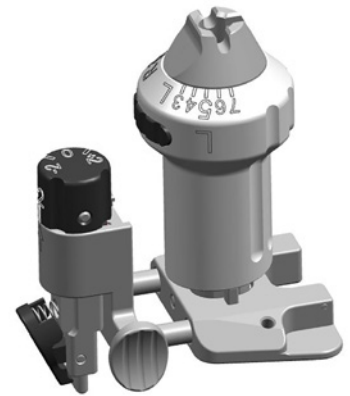


Figure 1

2. Attach the IM rod to the T-handle and insert through the alignment assembly (Figure 3). IM rod will lock into the alignment assembly in one of three places (see Figure 2).

Note There are two locking positions on the IM Rod. If the alignment assembly can make a full rotation around the IM Rod, the second lock has not engaged. Remove the IM Rod and reengage.

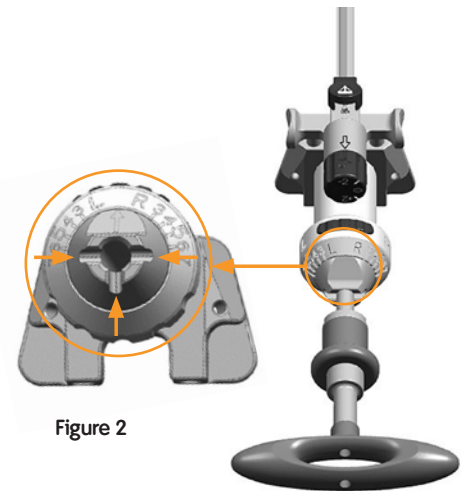


Figure 2

Figure 3

3. Attach the Distal Femoral Cutting block onto the Bridge. Positioning the block and the dial on the adjustable bridge at the primary (“0”) resection level will ensure the cut will equal the distal thickness of the femoral prosthesis (Figure 4).

Note The Distal Femoral Cutting block is designed to pivot medial and lateral to accommodate various patient morphology.

Tip If surgeon preference is to pin the -2mm pin holes initially, it is recommended to add the Wide Distal Cut Block to the set.

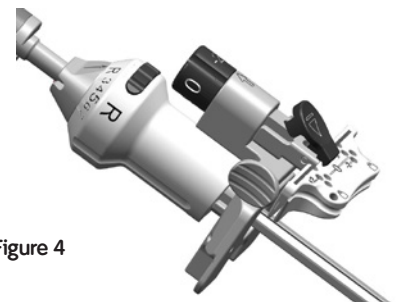


Figure 4

				
Adjustable Valgus Guide 7401-6210	Adjustable Valgus Bridge 7401-6203	T-Handle 7167-4576	IM Rod Long 7401-6211 Short 7401-6212	Distal Cutting Block Wide 7401-6204 Standard 7401-6205

Intramedullary alignment

1. Open the femoral canal with the 9.5mm Intramedullary Drill. The drill has a 12mm step to open the entry point further (Figure 5).

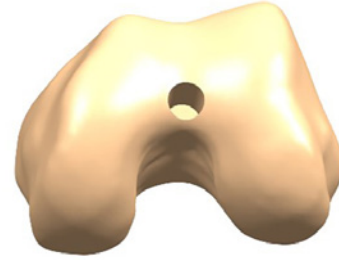


Figure 5

2. Slide the Intramedullary Rod of the alignment assembly into the femoral canal until the Valgus Guide contacts the distal femur (Figure 6).

Note There may be times when only one side of the guide will touch bone.

Tip To avoid a shallow distal resection, it is recommended to not push the Bridge all the way into the Valgus Guide until it has been seated on the distal surface.

Tip Alternately, the Bridge can be assembled after seating the Valgus Guide onto the distal femur.

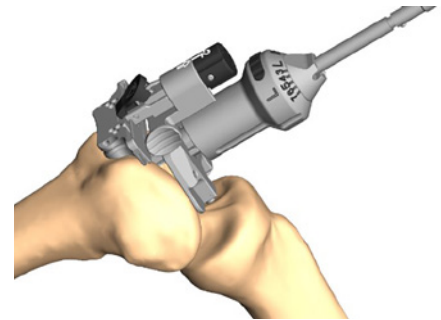


Figure 6

3. Push the button on the Valgus Guide and rotate ("L" for a left knee, "R" for a right knee) to set the valgus angle (3°, 4°, 5°, 6°, or 7°).

Tip This angle may be set before inserting the IM rod into the canal.

4. Orient rotation of the assembly neutral to the posterior condyles (Figure 7) insert a headed or non-headed 65mm SPEED PIN into one or both of the oblique pin holes.

Note Distal Cutting Guide will pivot to conform to the anterior bone geometry.

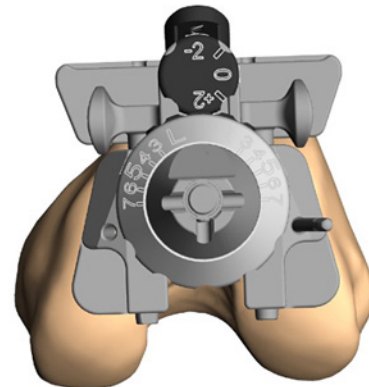









Figure 7

						
Adjustable Valgus Guide 7401-6210	Adjustable Valgus Bridge 7401-6203	T-Handle 7167-4576	IM Rod Long 7401-6211 Short 7401-6212	Distal Cutting Block Wide 7401-6204 Standard 7401-6205	Intramedullary drill, 9.5mm 7401-2111	SPEED PIN Non-Headed 65mm 7401-3480 Headed 65mm 7401-3472 MIS Headed 65mm 7401-6466

Distal resection

1. With the Adjustable Valgus Bridge dial set to 0mm, using non-headed 65mm SPEED PIN(s), pin the distal femoral cutting block to the anterior femur using the holes marked '0'. Once adequate distal femoral resection is noted, headed or non-headed 65mm SPEED PIN(s) should be placed in one or both oblique pin holes for additional stability (Figure 8).

Tip The resection level can be adjusted before pinning the distal block by using the dial on the Valgus Bridge. +2mm or -2mm can be dialed in prior to resection.

Note Resection level can also be adjusted using the alternate pin holes on the cutting block, -2mm or +2mm of bone.

Tip The chamfer on the -2mm pin holes of the Standard Distal Cutting Block may cause pins to become stuck in the block. Place pin into pinhole before starting power.

Tip The oblique pin holes on the Distal Cut Block may come in contact with the IM rod. If any resistance is present, stop and assess.

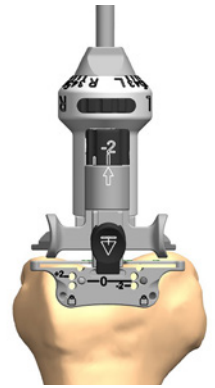


Figure 8

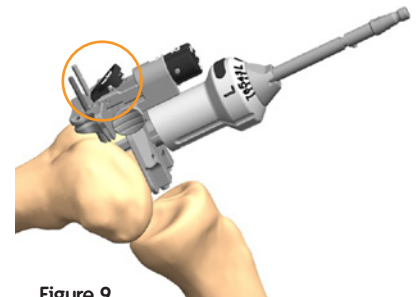


Figure 9

2. Push the button on the Valgus Bridge (Figure 9) to remove the alignment assembly from the incision site. Only the distal cutting block should remain on the femur.

3. Resect the distal femur (Figure 10) then remove the distal femoral cutting block.

Tip If the distal femoral resection is not adequate, remove the oblique SPEED PIN(s), and reposition the block through the pin holes marked +2mm and re-insert the oblique pin.

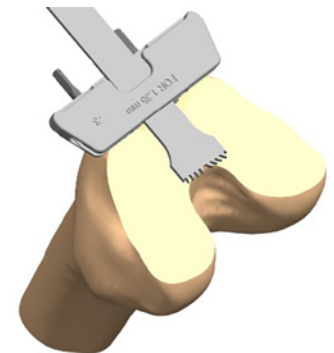


Figure 10



Adjustable Valgus Guide
7401-6210



Adjustable Valgus Bridge
7401-6203



T-Handle
7167-4576



IM Rod
Long 7401-6211
Short 7401-6212



Distal Cutting Block
Wide 7401-6204
Standard 7401-6205



SPEED PIN
Non-Headed 65mm
7401-3480
Headed 65mm
7401-3472
MIS Headed 65mm
7401-6466

Sizing note

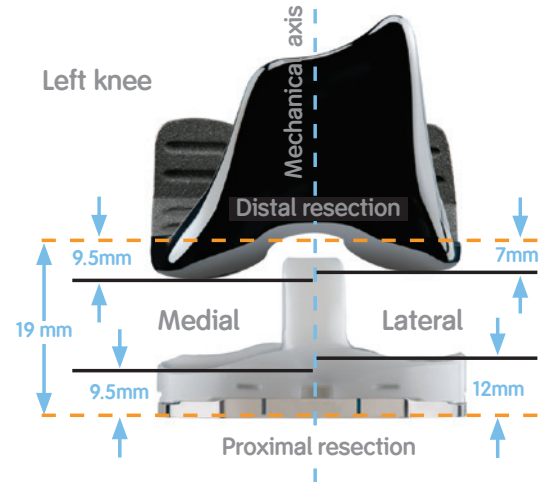
The JOURNEY[®] II Total Knee System femoral component features a proportional distal resection for the Standard and Large sizes (see table).

Use preoperative templating to estimate the femur size to determine the appropriate distal resection.

If the approximate size is between a size 8 and size 9, it is recommended to make the distal resection for the larger of the two sizes and proceed as normal.

The Distal Cutting Block is designed to remove 9.5mm off of the most distal femoral condyle.

	Size	Distal Resection
Standard	1-8	9.5mm
Large	9-10	11.5mm



Instrument assembly

Note Surgical Technique for alignment alternative using the Micro Instrumentation can be found on page 38.

Macro Extramedullary tibial alignment guide

1. Attach the EM Posterior Slope Guide to the Ankle Clamp (Figure 11) by depressing the button on the Slope Guide and slide to the desired position.

Tip The neck on the Slope Guide should orient toward the arms and dials of the Ankle Clamp.

Note Each tooth is 1mm apart.

2. Attach the Macro EM Tibial Alignment Tube to the EM Posterior Slope Guide by depressing the inferior button on the Alignment Tube (Figure 12) and sliding to the desired position. Once the button is released, the height will be locked in position.

Tip The inferior button on Alignment Tube should face away from the arms of Ankle Clamp.

Note Each tooth is 1mm apart.

3. Attach the appropriate hand cutting block to the Alignment Tube by depressing the superior button on the Alignment Tube (Figure 13).



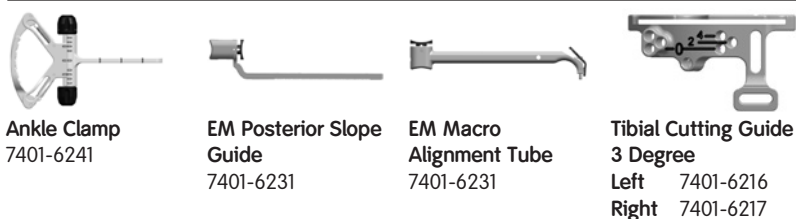
Figure 11



Figure 12



Figure 13



Extramedullary alignment

1. Open the arms of the ankle clamp and attach alignment jig to the tibia. Adjust height and distance from tibia by depressing the buttons on the Macro Alignment Tube and EM Posterior Slope guide, respectively.
2. Once approximate resection level is set, use a headed 45mm SPEED PIN[®] to pin through the provisional slot in the Tibia Cutting Block (Figure 14).
3. Insert Adjustable Footed Tibia Stylus into the saw slot of the Cutting Guide (Figure 15).
4. Adjust the stylus to desired resection level by rotating the dial.

Note The dial on the stylus adjusts from 2mm – 13mm in 1mm increments.

Note The 9mm tibial implant is 9.5mm thick on the medial side and 12mm thick on the lateral side

Tip Depending on provisional position, it may be necessary to depress the inferior button of the Alignment Tube while setting resection depth via the stylus. Alternately, this resection level may be set prior to attaching the jig to the patient.

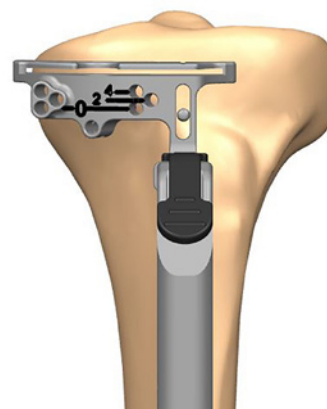


Figure 14



Figure 15



Ankle Clamp
7401-6241



EM Macro
Alignment Tube
7401-6231



Adjustable Footed
Stylus
7401-6229



Tibial Cutting Guide
3 Degree
Left 7401-6216
Right 7401-6217



SPEED PIN
Headed 45mm
7401-3471
MIS Headed 45mm
7401-6465

Proximal resection

1. With the Adjustable Tibia Stylus set to the desired resection level, using non-headed 65mm SPEED PIN®(s), pin the cutting guide in position through the holes marked '0.' For additional fixation, a headed or non-headed 65mm SPEED PIN(s) can be inserted through the oblique pin hole.

Note To do an extramedullary alignment check, remove alignment tube and replace with the EM alignment guide handle. Place the extramedullary alignment rod through the EM alignment guide handle (Figure 16).

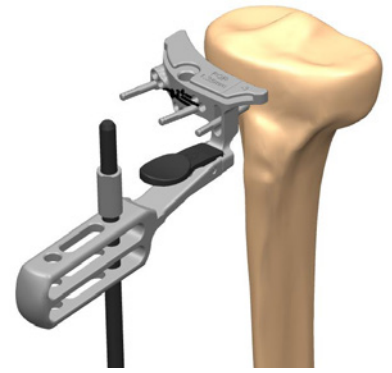


Figure 16

2. Remove the Tibia Stylus. Resect the proximal tibia (Figure 17) and remove the cutting guide.

Note If an uncaptured saw cut is desired, the resection can be performed by cutting on top of the block. An additional 3mm will be needed to account for this offset.

Tip If additional resection is needed, the cutting guide can be shifted to the holes marked '2' or '4' for an additional +2mm or +4mm of resection, respectively.

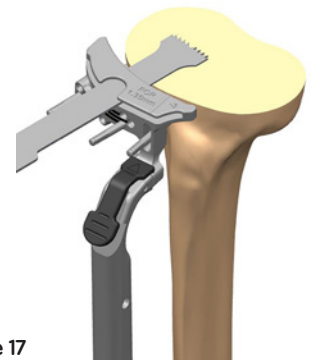


Figure 17

3. To remove assembly, depress the superior button on the Alignment tube to disengage from the cutting block.



EM Macro Alignment Tube
7401-6231



Adjustable Footed Stylus
7401-6229



Tibial Cutting Guide
3 Degree
Left 7401-6216
Right 7401-6217



SPEED PIN
Non-Headed 65mm
7401-3480
Headed 65mm
7401-3472
MIS Headed 65mm
7401-6466



EM Alignment Guide Handle
7401-6213



VNR Extramedullary Alignment Rod
7144-0302

Extension gap assessment

Note If performing a BCS surgery and the PCL has not already been removed, excise completely the entire PCL attachment from the femoral intercondylar notch with either a cautery or scalpel to prevent it from affecting the assessment. The femoral box prep will not completely detach all fibers of the PCL.

Tip Assess the extension gap prior to making the posterior cut as removing the posterior condyles can relax the posterior tissue and create a false sense of increased extension laxity.

Ensure that all posterior osteophytes are removed prior to assessing the extension gap. Posterior osteophytes at this stage may result in inaccurate balance once all resections are performed.

1. The 10mm end of the Extension Spacer Block should easily insert into the extension gap. (Figure 18).

Tip Use the 10mm side as a gauge to ensure a minimum of 1mm of extension laxity.

Note The 10mm side of the Extension Spacer Block has a 20mm thickness, which accommodates a standard size implant and 9mm insert (19mm) plus 1mm of laxity. Attach the 12mm Spacer Plate to the 9mm end for large Femoral Component sizes (9 or 10), as they have additional distal resections and 21mm of total thickness.

2. To adjust thickness of Extension Spacer Block, shims (11mm, 12mm, 13mm, etc.) can be added as needed to the 9mm end to determine the extension space.

Tip The Extramedullary Alignment Rod can be inserted through the Extension Spacer Block to check limb alignment.

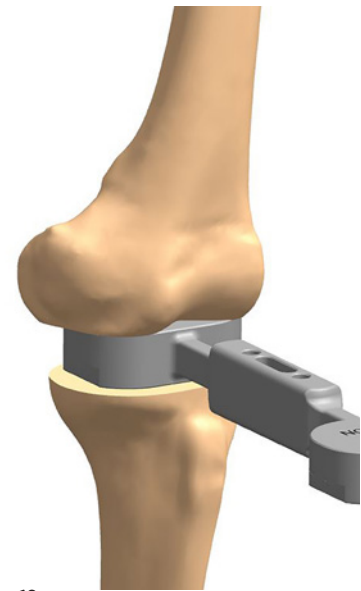


Figure 18



Extension Spacer Block
7401-6254



Spacer Plate Shim
11mm 7401-6257
12mm 7401-6258
13mm 7401-3721
15mm 7401-3722
18mm 7401-3723



VNR Extramedullary Alignment Rod
7144-0302

Flexion gap assessment

Note If performing a BCS surgery and the PCL has not already been removed, excise the entire PCL attachment from the femoral intercondylar notch with either a cautery or scalpel as the PCL has been shown to alter the flexion assessment.

1. Assemble the EM Alignment Guide Handle to the Flexion Spacer Block.
2. With the knee flexed to 90°, place the Flexion Spacer Block into the joint space, allowing the flat surface to reference the resected tibial surface and the stepped, articular side to reference the native posterior femoral condyles (Figure 19).
3. Apply a varus/valgus force and assess the medial and lateral compartment laxity levels of the flexion space. Adjust thickness of shim (11mm, 12mm, etc.) as needed to determine the flexion space (Figure 20).



Figure 19

- Note** No 10mm Spacer Plate Shim available.
4. When the flexion space is determined, compare the thickness selected relative to the extension space on the previous page.

Note Remember any difference between the extension and flexion space assessments as this will affect how the femoral implant is positioned in the steps ahead (e.g., 10mm Ext – 11mm Flex = -1mm Flex Imbalance).



Figure 20

Scenario	Extension Gap	Flexion Gap	Next Step
1	Good	Good	Move on to Femoral Positioning and Sizing
2	Good	Tight	Set the JOURNEY® II Sizing Guide to resect more posterior Femur
3	Good	Loose	Set the JOURNEY II Sizing Guide to resect less posterior Femur (Example: 10mm extension space minus a 12mm flexion space = -2mm imbalance. Set the Sizing Guide to the -2mm position)
4	Tight	Good	Resect 2mm more Distal Femur
5	Tight	Tight	Resect 2mm more Proximal Tibia
6	Tight	Loose	Resect 2mm more Distal Femur and determine if larger tibial insert can be used. If not, set the JOURNEY II Sizing Guide to resect less posterior Femur
7	Loose	Good	Set the JOURNEY II Sizing Guide to resect more posterior Femur and use a thicker tibial insert (Example: 11mm extension space minus an 10mm flexion space = +1mm imbalance. Set the Sizing Guide to the +1mm position)
8	Loose	Tight	Set the JOURNEY II Sizing Guide to resect more posterior Femur and consider downsizing the Femur
9	Loose	Loose	Implant thicker Tibial Insert



EM Alignment Guide Handle
7401-6213



Flexion Spacer Block
7401-6255



Spacer Plate Shim
11mm 7401-6257
12mm 7401-6258
13mm 7401-3721
15mm 7401-3722
18mm 7401-3723

Femoral positioning and sizing

- Optional: Mark the A/P and epicondylar axis on the femur (Figure 21).
- Place the (left or right) JOURNEY[®] II DCF Sizing Guide on the resected distal femur. With the medial paddle contacting the posterior medial condyle and the sizing guide flush to the distal resection, place a 45mm headed SPEED PIN[®] through the hole just above the medial paddle (Figure 22). This will secure the sizing guide for the remainder of its use.
- If there exists a known flexion/extension imbalance, unlock, translate and relock the drill guide appropriately (Figure 23).

Note For example, a 10mm extension space minus an 11mm flexion space = -1mm imbalance. Therefore, the drill guide should be translated to the -1mm position.

Note Do not translate the drill guide for anterior referencing. Anterior referencing, if desirable, is accomplished with the A/P Cutting Block.

- Ensure that the lateral paddle contacts the posterior lateral condyle. Begin with the paddle set to 3°. Rotate away from 3° if it is desirable to match the A/P or epicondylar axis or if it is desirable to balance the medial and lateral flexion gaps (Figure 24).

Note Each degree of rotation away from 3° is approximately 1mm deviation away from the lateral condyle (eg at 6°, 3mm of implant material is added to the lateral flexion gap).

- Once both the A/P and rotational measures are desirable relative to the anatomic landmarks, drill about a 1 inch (25mm) deep hole through each of the two holes in the drill guide (Figure 25).

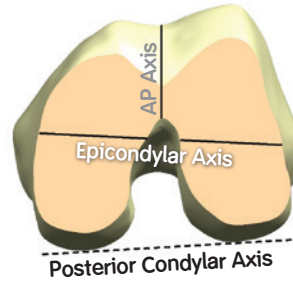


Figure 21

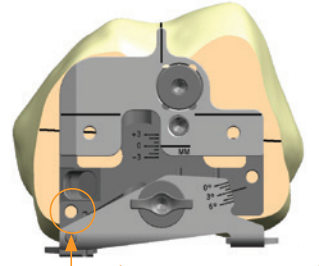


Figure 22

Place a 45mm speed pin in this hole

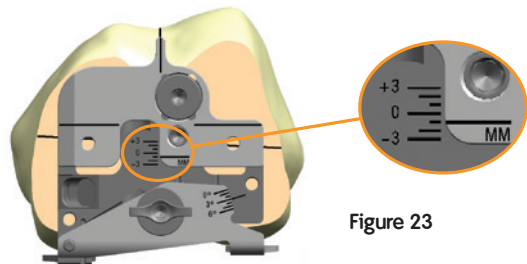


Figure 23

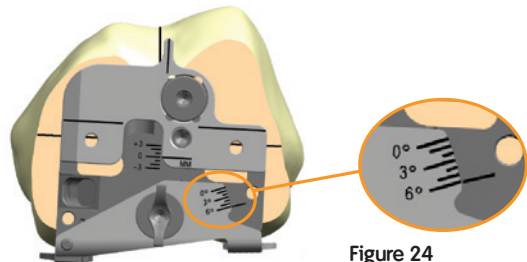


Figure 24

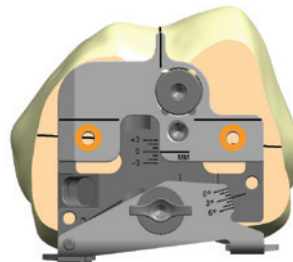


Figure 25



JOURNEY II TKA
Femoral Sizing
Guide Left
7401-2455



JOURNEY II TKA
Femoral Sizing
Guide Right
7401-2456

6. Finally, assemble the JOURNEY[®] Sizing Stylus to the guide and estimate the A/P femoral size.

Position the stylus tip just lateral of the anterior trochlear sulcus (Figure 26). If desired, use the indicated size Femoral Trial to compare the ML width before selecting which size A/P Cutting Block to use.

Design note The JOURNEY II DCF Sizing Guide is designed to reference the posterior condyles. At 3° the guide will make A/P resections at 3° externally rotated from the posterior condylar axis. The guide also allows for rotation between 0° and 6° relative to the posterior condylar axis.

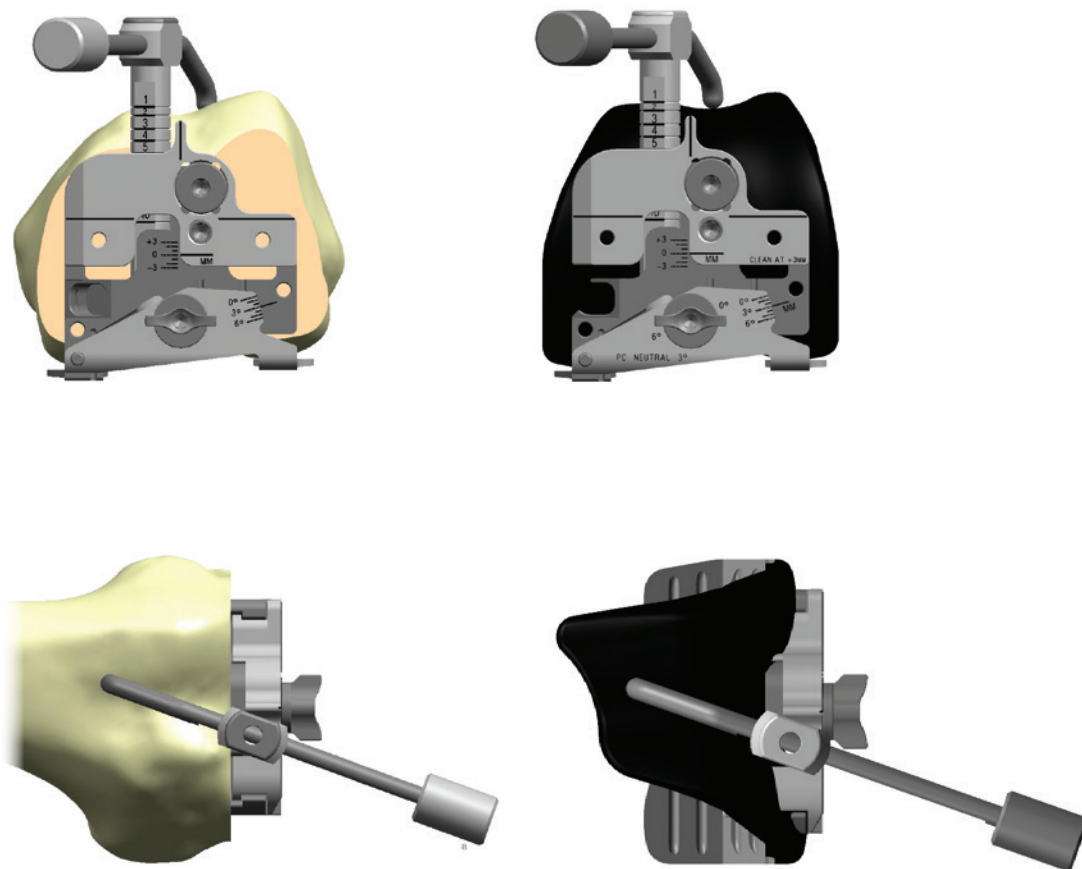


Figure 26



JOURNEY II TKA
Femoral Sizing Stylus
7401-2457

Femoral A/P and chamfer resections instrument

1. Position the spikes on the DCF A/P Femoral Block into the pre-drilled holes (Figure 27). Use the Mallet to impact the A/P Block assembly until the block is flush with the resected distal femur. Remove the A/P Block Impactor.

Note The posterior resection will match the implant thickness when the highlighted indicator in the A/P Block knob is aligned with “Post. Ref”.

Note The A/P Femoral Cutting Block allows adjustment of up to 2mm either anteriorly or posteriorly.

2. Use the Resection Check to check the location of the anterior cutting slot. Make any necessary anterior/posterior adjustments to avoid over stuffing the patella femoral joint, over stuffing the flexion space or femoral notching (Figure 28).

Note If 2mm upshift is not enough to avoid notching, select the next largest A/P cutting block size and adjust until notching is avoided.

Design note The difference between JOURNEY® II TKA femoral implant sizes is 3mm on average.

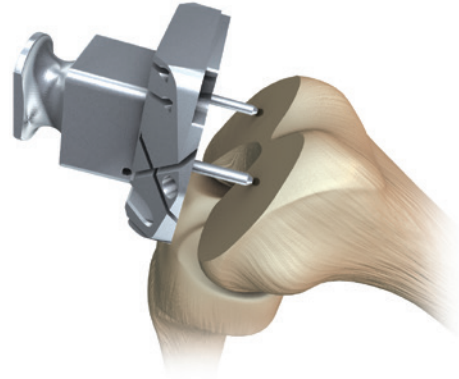


Figure 27

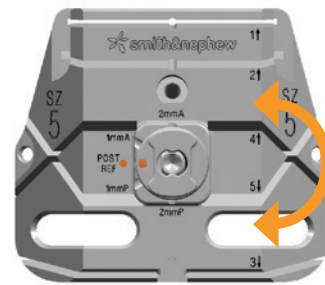


Figure 28



JOURNEY DCF AP
femoral cutting
block Size 5
7401-2415



JOURNEY DCF
AP femoral block
impactor
7401-2421



Hex driver
115035



Resection Check
7401-6271

3. Use two headed 45mm SPEED PIN[®] through the medial and lateral fixation holes on the cutting block (Figure 29).

Note Any bone spikes placed in either the medial or lateral anterior spike holes should be removed before making the anterior chamfer resection.

4. Complete the cuts in the order indicated on the block:

- 1 Anterior
- 2 Anterior Chord
- 3 Posterior
- 4 Posterior Chamfer
- 5 Anterior Chamfer

Note While performing the posterior and posterior chamfer resections use careful placement of retractors to protect the Popliteus Tendon attachments to the femur. Releasing the Popliteus Tendon can destabilize the knee laterally in flexion.

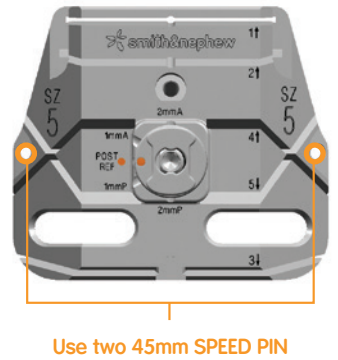


Figure 29

SPEED PIN
Headed 45mm
7401-3471
MIS Headed 45mm
7401-6465

Alternate Method – Fixed Femoral A/P and chamfer resections instrument

Note To use Fixed Femoral A/P Instrumentation, a special order must be placed as it is not part of the standard set.

A/P and Chamfer resections

1. Position the spikes on the Fixed A/P Femoral Block into the pre-drilled holes. Use the Mallet to impact the Fixed A/P Block until it is flush with the resected distal femur (Figure 30).
2. Use two headed 45mm SPEED PIN[®] through the medial and lateral fixation holes on the cutting block
3. Complete the cuts in the order indicated on the block:
 - 1 Anterior
 - 2 Anterior Chord
 - 3 Posterior
 - 4 Posterior Chamfer
 - 5 Anterior Chamfer

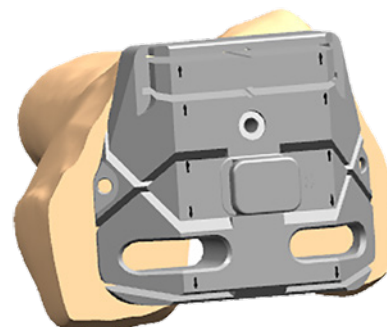
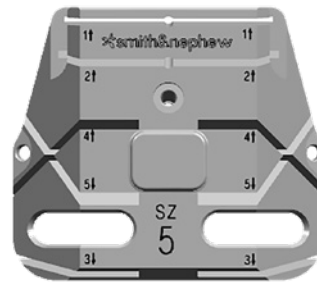


Figure 30

Downsizing the Femoral Component

1. Attach the downsizing drill guide to the cut femur, placing the spikes on the back of the plate into the same location holes used for the A/P cutting block (Figure 31).
2. Drill new location holes through the downsizing drill guide (shifted 2mm anterior).
3. Place the smaller A/P cutting block into the new location holes. Redo the posterior, anterior, anterior chord and chamfer cuts.

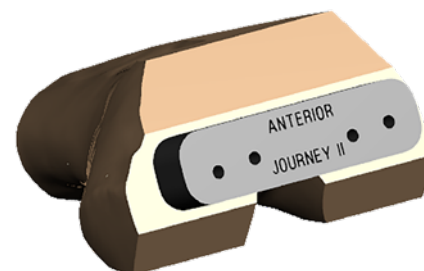


Figure 31



JOURNEY° DCF
FIXED AP femoral
cutting block
Size 5
7401-2665



SPEED PIN
Headed 45mm
7401-3471
MIS Headed 45mm
7401-6465



Downsizing Drill Guide
7401-6274

Resected flexion gap assessment

1. The 10mm end of the Extension Spacer Block should easily insert into the flexion gap in 105° of flexion (due to 15° posterior cut) (Figure 32).

Tip Use the 10mm side as a gauge to ensure a minimum of 1mm of flexion laxity.

Note The 10mm Extension Spacer Block has a 20mm thickness, which accommodates a standard size implant and 9mm insert (19mm) plus 1mm of laxity. Attach the 12mm Spacer Plate to the 9mm end for large Femoral Component sizes (9 or 10), as they have additional distal resections and 21mm of total thickness.

2. If the 10mm end of the Extension Spacer Block goes in tight in flexion and loose in extension, consider downsizing the femur.

If the 10mm end goes in tight in flexion and extension, consider taking 2mm more tibia.

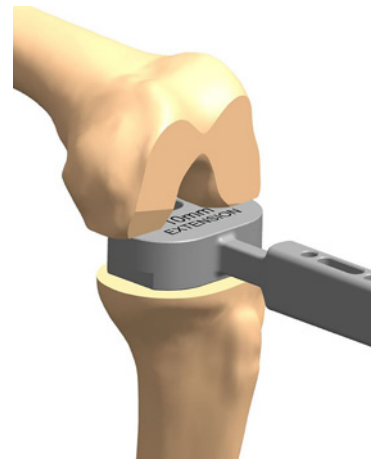


Figure 32



Extension Spacer Block
7401-6254



Spacer Plate Shim,
12mm
7401-6258

Downsizing femoral component

1. Place the smaller DCF A/P Block into the pre-drilled holes. Turn the center knob of the A/P Block until either the anterior resection cutting slot is aligned with the anterior resection or positioned as desired. This can be verified using the Resection Check.
2. Secure the A/P Block to the distal femur and remake the cuts as indicated on the block: anterior, anterior chord, posterior, posterior chamfer and anterior chamfer.

Additional distal resection

1. If the pre-drilled holes in the anterior cortex can be located, place two non-headed 65mm SPEED PIN[®] into the anterior femur. Place the Distal Cutting Block over the non-headed speed pins through the spike holes at the desired resection level.
2. If the pre-drilled holes cannot be found, place the Resection Check through the Distal Block resection slot and position the plane onto the distal resection. Pin the Distal Block through the “0” holes. Remove the Resection Check and then shift the block to the desired resection level, pin obliquely and remake the distal resection.
3. Place the A/P Cutting Block into the pre-drilled holes on the distal resection. Turn the center knob of the A/P Block until the anterior resection cutting slot is aligned with the anterior resection. This can be verified using the Resection Check.

Tip Due to the flexed posterior resections taking more distal resection will create a small gap posteriorly (i.e. 0.5mm gap for 2mm additional distal resection). Some surgeons will look to move the A/P Cutting Block 1mm anteriorly to move the gap to the anterior cortex.

4. Secure the A/P Cutting Block to the distal femur and remake the cuts as indicated on the block: anterior, anterior chord, posterior, posterior chamfer and anterior chamfer.



Resection Check
7401-6271



Distal Cutting Block
Wide 7401-6204
Standard 7401-6205



SPEED PIN
Non-Headed 65mm
7401-3480

Patellar Reaming option*

The recommended time to prepare the patella is after all tibial and femoral cuts are made, but prior to trial placement. In some cases, the patella is cut just after the arthrotomy to facilitate exposure.

Evert the patella, or at least partially evert the patella to 90°, measure its thickness and determine the appropriate diameter implant.

1. Measure the overall thickness of the patella with the caliper. Assess how much bone to remove based on selected patella implant thickness (Figure 33).

Note It is recommended to leave at least 12mm of residual patella. Depth gages allows 10mm and 12mm depth of ream (Figure 34).

2. Attach the Reaming Patella Clamp with appropriate collet, based on patella diameter, to the patella and tighten the reamer guide on the patella.
3. Attach the Patella Reamer Shaft with depth stop to the drill and lower the reamer through the Patellar Clamp until the reamer dome contacts the patella.
4. Place the Depth Gage on the top of the patella collet around the reamer shaft. Use Biconvex side of depth gage if using biconvex patella implant. Use Resurfacing side if using resurfacing patella implant (Figure 34).
5. Lower the Patellar Depth Stop until it contacts the Patellar Depth Gage.
6. Remove the Depth Gage.
7. Ream the patella until the depth stop engages the patella clamp (Figure 34).



Figure 33



Figure 34

*Outcome data reported in some registries suggest that resurfacing the patella during primary TKA should be considered since it may decrease the rate of revision, provided the patient's anatomy.^{11,12†}



Calipers
114943



Reaming Clamp
4240-4322



Reaming Collet



Depth Gage
4240-7380



Reamers



Depth Stop
7144-0427

Patellar Reaming option *continued*

Biconvex (inset) patella

8. If the Biconvex design is selected, use a towel clip to insert the appropriate diameter Biconvex Patella Trial into the recess in the patella. Use the Patella Caliper to reassess the patella thickness.

Resurfacing (onset) patella

9. If the Resurfacing design is selected, use the Caliper to reassess the patella thickness (Figure 35).
10. Remove the Patella Reamer Collet from the Patella Reamer Guide.
11. Select the appropriate diameter Resurfacing Patella Drill Guide and slide it onto the Patella Reamer Guide. Attach the Patella Reamer Guide Assembly to the reamed patella and tighten the reamer guide on the patella (Figure 36).
12. Use the Patella Peg Drill to drill the three pegs through the Patella Drill Guide until the drill bottoms out in the guide (Figure 36).
13. Remove the Patella Reamer Guide and drill guide from the patella.
14. Place the Resurfacing Patellar Trial onto the resected patella. Use the Patella Caliper to reassess the patella thickness.

Note All GENESIS[®] II patellae are designed for use with JOURNEY[®] II Total Knee System.

Note To decrease the patella thickness further, depress the button on the depth stop to raise it on the Patella Reamer Shaft. Each tooth adjustment will ream an additional 1mm. Engage the Patella Reamer back into the Patella Reamer Collet and ream the patella until the Patellar Depth Stop engages the Patella Reamer Collet.

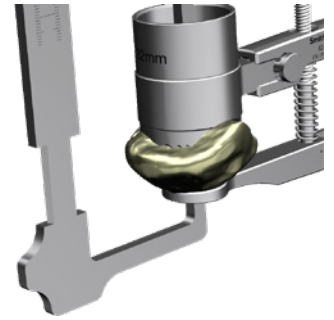


Figure 35

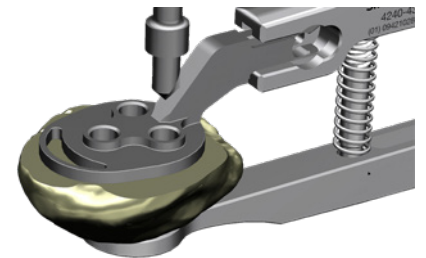


Figure 36



Peg Drill
7401-4748



Peg Drill Guide
4240436X

Patellar Resection option

1. Measure the overall thickness of the patella with the Caliper and assess how much bone to remove based on selected patella implant thickness (Figure 37).



Figure 37

Note Round patella options come in 9mm and/or 7.5mm. See chart below for Oval patella options.

2. Determining the depth of cut (usually based on patella implant thickness) and dial in the stylus on the patella saw guide to have the corresponding resection level. Clamp the patella between the jaws of the guide (Figure 38).

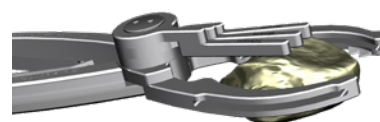


Figure 38

Note It is recommended to leave at least 12mm of residual patella to minimize the risk of fracture.

3. Resect the patella through slots of the dedicated saw guides (Figure 38).
4. Assess size (diameter) of the patella with the sizing guides.
5. Select the appropriate diameter Resurfacing Patella Drill Guide and slide it onto the Resection Patella Clamp. Attach the Assembly to the resected patella and tighten to the patella.
6. Use the Patella Peg Drill to drill for the three peg holes through the Patella Drill Guide until the drill bottoms out in the guide (Figure 39).
7. Remove the Patella Reamer Guide and Drill Guide from the patella.
8. Place the Resurfacing Patellar Trial onto the resected patella. Use the Caliper to reassess the patella thickness.

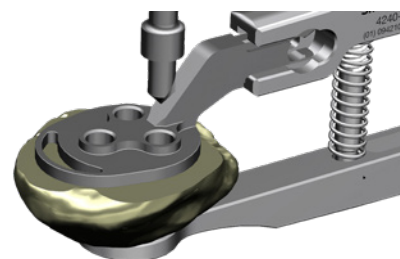


Figure 39

Oval Patellar sizing options

Oval Resurfacing implant

Diameter	Thickness
29mm	8.5mm
32mm	9.0mm
35mm	9.0mm
38mm	9.5mm
41mm	10.0mm



Classic Patella Saw Guide
4240-4211

Sizing Guides
7401-5461

Resection Clamp
4240-4321

Peg Drill Guide
4240436X

Peg Drill
7401-4748

JOURNEY[◇] II BCS femoral trialing and box preparation

1. Select the baseplate trial based upon best fit and coverage on the resected tibia. Set position of the tibial baseplate based upon the anatomic landmarks of the tibia (best fit coverage and medial third of the tubercle). Pin the baseplate using two short headed pins (Figure 40).

Tip If desired, for additional fixation, a headed 45mm SPEED PIN[®] can be used in the anterior medial pin hole.

2. Place the Femoral Trial onto the femur by positioning the proximal edge of the posterior condyles at the proximal end of the posterior resection.
3. Impact on the angled surface of the Femoral Trial Impactor to rotate the Femoral Trial from posterior to anterior until the distal surface is completely flush with the distal resection (Figure 41).
4. Place the Short Bone Spikes in the anterior flange to secure the Femoral Trial to the femur. Loosen the lock knob of the Femoral Trial Impactor and remove anteriorly, leaving the trial in place.
5. Insert the appropriate size JOURNEY II BCS Box Prep Guide into the T-slot of the Femoral Trial from the anterior side until the pegs on the Box Prep Guide engage in the Femoral Trial (Figure 42).

Tip If the pegs on the Box Prep Guide do not automatically engage, apply hand pressure down to manually engage pegs.



Figure 40



Figure 41



Figure 42



Universal Tibia
Baseplate Trial
7403-3804



Femoral Trial
Impactor
7401-2514



JOURNEY II TKA
Femoral Trial
7403-1225



BCS Box Prep Guides
SZ 1-2 7401-2574
SZ 3-5 7401-2575
SZ 6-8 7401-2576
SZ 9-10 7401-2577



SPEED PIN
Headed 45mm
7401-3471
MIS Headed 45mm
7401-6465

6. Insert the PS Box Reamer into the BCS Box Prep Guide and ream posteriorly first and then anteriorly (Figure 43).

Tip If the power equipment has “Drill” and “Reamer” settings, ensure “Drill” setting is selected and allow the PS Box Reamer to reach maximum speed before engaging the bone.

7. Connect the Modular Box Chisel to the Modular Impact Handle. Insert the Chisel into the posterior portion of the BCS Box Prep Guide and impact until flush. Repeat punching on anterior portion (Figure 44). Use underside of strike plate to remove.
8. Remove the BCS Box Prep Guide by lifting up on the outside casing to disengage the pegs and sliding anteriorly.
9. Remove any remaining bone debris within the box preparation area.
10. Position the anterior tabs of the JOURNEY[®] II BCS Cam Trial into the Femoral Trial’s anterior recess and rotate the Cam Trial posteriorly until the Femoral Trial detents have secured the Cam Trial (Figure 45).

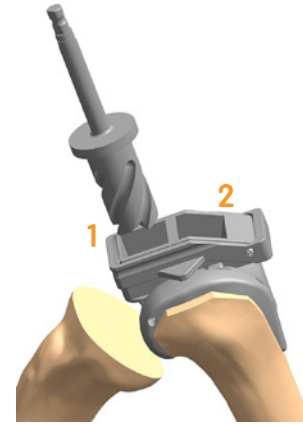


Figure 43

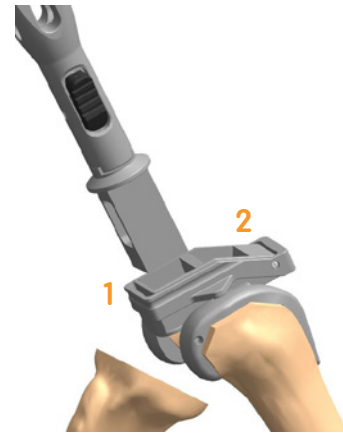


Figure 44

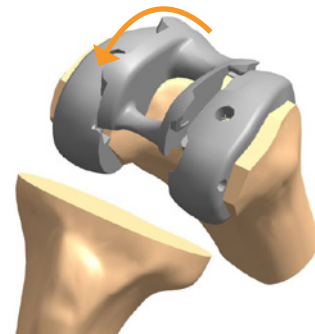
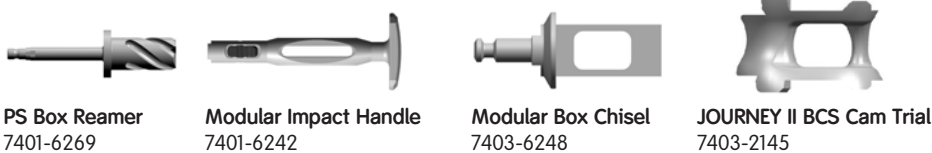


Figure 45



Femoral and Tibia Trialing

1. Place the appropriate size and desired thickness Articular Insert Trial onto the Tibia Baseplate Trial.

Tip Connect the Articular Insert Trial Adapter to the EM Alignment Guide Handle to aid in trial insertion (Figure 46).

Tip Placing the insert trial into the trial baseplate can be difficult because of the high medial posterior lip of the insert. The best technique is to flex the knee to 120°, push in the insert as far as possible and bring the leg out into full extension.

Note To trial thicknesses 11mm and higher, assemble the appropriate thickness Universal Insert Spacer with the 9mm Articular Insert Trial.

2. Perform trial range of motion and assess laxity and balance (Figure 47). The knee should drop passively under full extension. Under varus/valgus stresses, there should be approximately 1-2mm of gapping both medially and laterally throughout the range of motion. There should be no increase in resistance as the knee flexes from 0° to 90°. If the knee is too tight, try a thinner insert or resect more tibia.

Tip A cautery tip is ~2mm wide.

3. Once the trial assessment is completed and the correct insert thickness has been determined, take the leg into full extension (Figure 48). Use a cautery to mark the location of the laser etch lines on the anterior cortex of the tibia to reference the baseplate rotation.

Tip In most cases, rotational alignment of the tibial baseplate based upon 1) best fit and coverage, 2) the medial third of the tubercle, and 3) the cautery mark will all match.



Figure 46



Figure 47

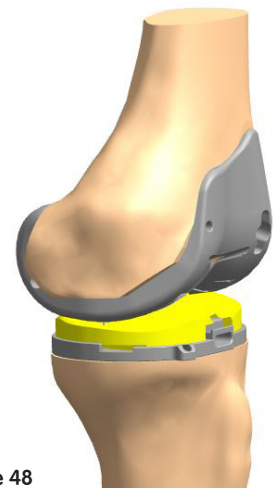


Figure 48



Articular insert trial
7403-5241



Universal Tibia
Baseplate Trial
7403-3804



Articular Insert
Trial Adapter
7401-6259



EM Alignment
Guide Handle
7401-6213



Universal Insert
Spacer
7401-6263



Universal pin driver
7151-3331

4. Once the trial assessment is complete, and final implant sites determined, remove the Insert Trial and Femoral Trial.

5. Optional Step: Use the Tibial Drill to prepare the canal.

Note An alternative method to setting tibial rotation is to use the tibia trial bullet. This can be used once the central canal has been prepared but before the keel preparation. With the tibia trial not pinned to the tibial surface, insert the bullet into the prepared canal, insert desired articular insert trial and appropriate femoral trial. Assess baseplate rotation and use a cautery to mark correct position. Then pin, remove bullet and prepare keel.






6. Connect the appropriate size Modular Fin Punch to the Modular Impact Handle. Impact through the baseplate trial (Figure 49). Use the underside of the strike plate to remove.

7. Remove the two short bone spikes and anterior pin, if used, with the JOURNEY® II TKA Removal Tool, and remove the baseplate trial.

Note If a constrained insert has been selected, the patient should have good femoral bone quality and a tibial stem is recommended.



Figure 49

				
<p>JOURNEY II Removal Tool 7401-2825</p>	<p>Modular Impact Handle 7401-6242</p>	<p>Modular NP Fin Punch SZ 1-2 74016244 SZ 3-4 74016245 SZ 5-6 74016246 SZ 7-8 74016247</p>	<p>11mm Tibial Drill 7144-0040</p>	<p>Tibia Plug 7144-2196</p>

Instrument assembly

Femoral Component

1. Assemble the Femoral Implant Impactor Bumper (available in Left and Right) onto the Femoral Implant Impactor.
2. Unthread the lock knob completely.
3. Press the thumb lever on the posterior side to push the dual arm mechanism upwards.
4. Position the taller arm inside the posterior cam of the femoral component and rotate the shorter arm onto the anterior cam. Release the thumb lever (Figure 50).
5. Thread the lock knob until hand tight.

Cement Preparation

1. Mix and prepare cement for final implants and prepared bone surfaces.



Figure 50



JOURNEY® Femoral
Impactor Bumper
7401-2821



JOURNEY II BCS Locking
Femoral Impactor
7401-2812

Final implantation and closure

Tibial Component

1. Maximally flex the knee and place a thin bent Hohmann laterally and medially and an Aufranc Retractor posteriorly to sublux the tibia forward.
2. Suction the keel prep hole and avoid contaminating the implant cement interface surface with fat or other fluids prior to cement application.
3. Apply generous amounts of cement to the dry underside of the baseplate, keel and into the keel prep hole.
4. Connect the Modular Tibia Impactor to the Modular Handle. Use a mallet to fully seat the Tibial Baseplate Component onto the proximal tibia (Figure 51).

Optional Instrument Use the Locking Tibia Impactor and a mallet to introduce the Tibial Baseplate Component onto the prepared proximal tibia. Release the locking tabs from the center island of the Baseplate Component. Finish with Modular Handle and Modular Tibia Impactor.

5. Remove excess cement.



Figure 51



Modular Impact Handle
7401-6242



Modular Universal
Tibial Impactor
7401-6249



JOURNEY® II
Locking Tibia
Impactor
7401-6268

Femoral Component

1. Flex the knee to 90°, keeping the thin bent Hohmann laterally and removing the Aufranc retractor.
2. Apply generous amounts of cement to the dry inside surfaces of the femoral component and onto the prepared surfaces of the bone.

Tip Care should be taken to avoid excess cement on the posterior aspect of the femur and femoral component. Excess cement that extrudes posteriorly is difficult to remove.

3. Place the Femoral Component onto the femur by positioning the proximal edge of the posterior condyles at the proximal end of the posterior resection (Figure 52).

Tip Care should be taken when reverse impacting if implant removal is necessary.

4. Impact on the angled surface of the Femoral Implant Impactor to rotate the Femoral Component from posterior to anterior until the distal surface is completely flush with the distal resection.
5. Unthread the lock knob completely. Rotate the Femoral Implant Impactor posteriorly to disengage it from the Femoral Component.
6. Connect the Modular JOURNEY® Femoral Impactor to the Modular Impact Handle for final impactions (Figure 53).
7. Remove excess cement giving particular care to remove cement along the proximal portion of the femoral cam.
8. Extend the knee to remove cement anteriorly without retracting the proximal soft tissue.

Radiographic note The JOURNEY II Total Knee System features an anatomical joint line in the A/P view. The distal condyles of the Femoral Component will present a 3° varus angle relative to the Tibial Component when correctly aligned.



Figure 52



Figure 53



JOURNEY II BCS Locking
Femoral Impactor
7401-2812



Modular Impact Handle
7401-6242



Modular JOURNEY
Femoral Impactor
7401-6252

Patellar component

1. Assemble the Patellar Cement Clamp to the Clamp
2. Apply bone cement to the patella.
3. Place the patellar implant onto the prepared patella.
4. Clamp the patellar implant into the bone and remove the extruded cement (Figure 54).

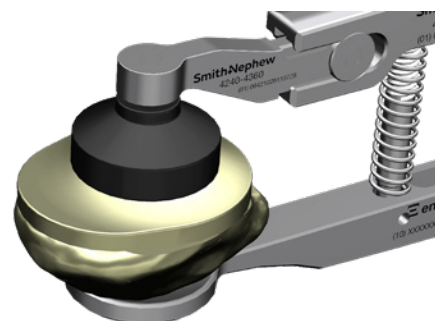


Figure 54

JOURNEY[◇] II TKA articular insert

1. Clear any debris from the locking mechanism.
2. Manually slide the insert into the tibial baseplate engaging the locking mechanism until the insert periphery is within 1-2mm of the Tibial Component periphery.

Note The articular insert can be difficult to insert because of the high medial posterior lip. The best technique is to flex the knee to 110°, push in the insert as far as possible and bring the leg out into full extension. Externally rotating the tibial in flexion can also help with getting in the insert.

3. Insert the tip of the Articular Insert Assembly Tool into the center notch of the anterior lock detail (handle up) and engage the two tabs of the Tool into the two recesses on the anterior periphery of the insert (Figure 55).

Note Make sure the tool is level with the plane of the baseplate.

4. Squeeze the tool handle until the insert is fully seated within the Tibial Component. The insert should not move under any pressure in flexion or extension.

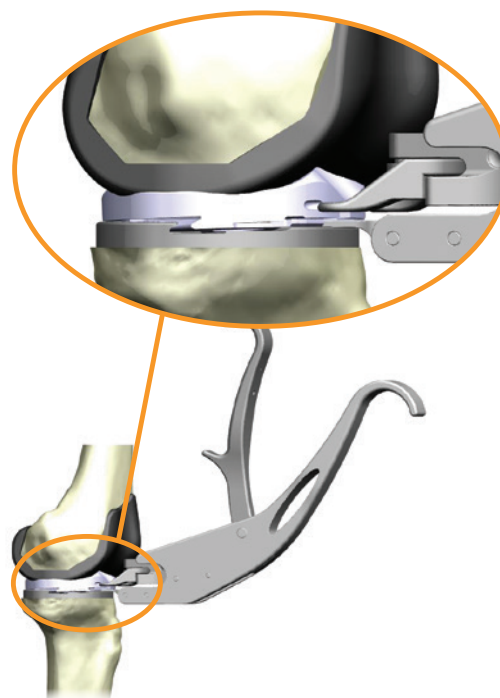


Figure 55



Articular insert
assembly tool
7401-8911



Patellar cement
clamp
7401-9801



Cement Clamp
4240-4360

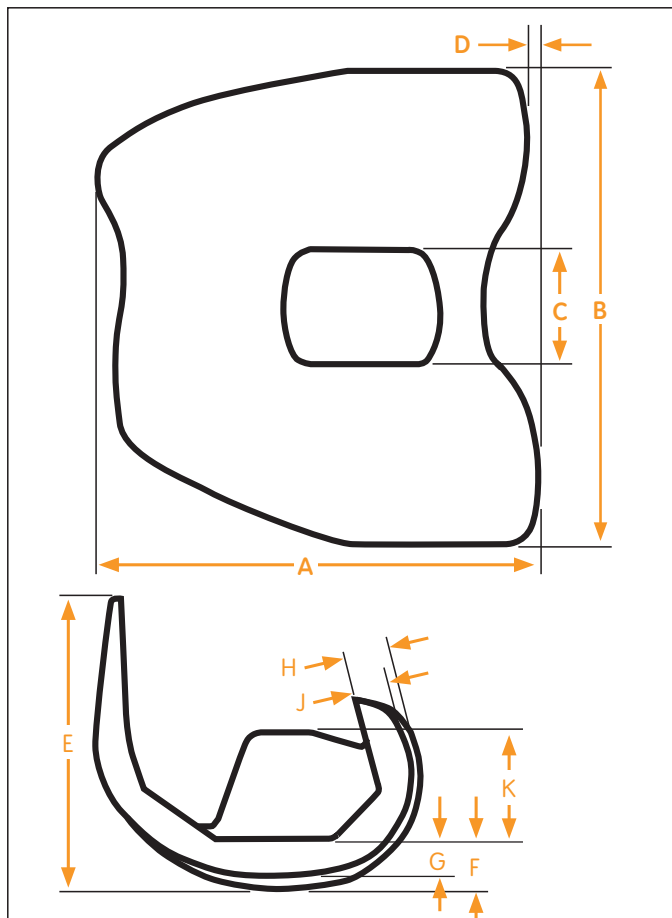
Closure

1. Close the arthrotomy by placing three O-Vicryl™ sutures at the superior border of the patella just distal to the VMO. A stitch is placed to close the VMO fascia. The remainder of the arthrotomy is closed in the standard fashion.
2. Perform routine subcutaneous and skin closure.

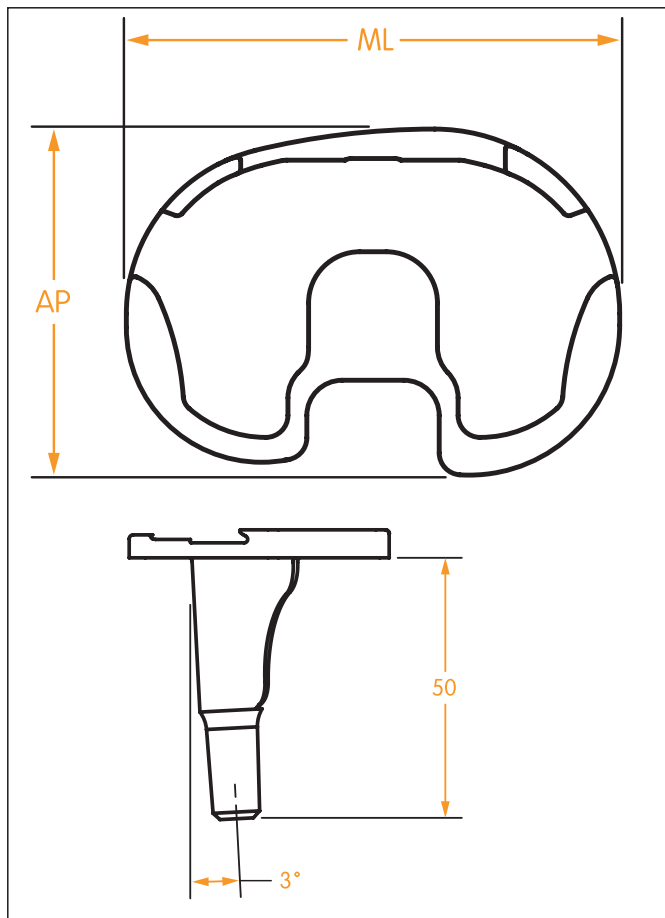
Tip Closing the knee in flexion may benefit early rehab.

JOURNEY[◇] II BCS Specifications

JOURNEY II BCS Femoral component dimensions (mm)



JOURNEY II BCS Tibial baseplate dimensions (mm)



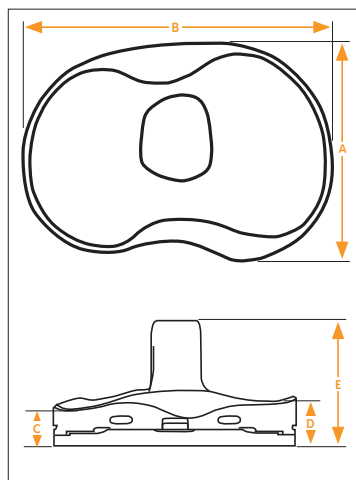
Size	A	B	C	D	E	F	G	H	J	K
1	51.7	59.0	16.5	1.7	49.5	9.5	7	9	7.4	16.0
2	53.7	60.0	16.5	1.7	50.7	9.5	7	9	7.4	17.0
3	56.7	61.5	16.5	1.7	52.5	9.5	7	9	7.4	17.0
4	59.7	64.5	16.5	1.7	54.3	9.5	7	9	7.4	20.5
5	62.7	67.5	16.5	1.7	56.0	9.5	7	9	7.4	20.5
6	65.7	70.5	16.5	1.8	57.7	9.5	7	9	7.4	22.0
7	68.8	73.5	16.5	1.8	59.5	9.5	7	9	7.4	22.0
8	71.8	76.0	16.5	1.8	61.2	9.5	7	9	7.4	22.0
9	75.8	80.0	16.5	1.8	63.5	11.5	9	11	9.4	22.8
10	79.8	82.0	16.5	1.8	65.7	11.5	9	11	9.4	22.8

Size	A/P	M/L
1	42	60
2	45	64
3	48	68
4	50	71
5	52	74
6	54	77
7	56	81
8	59	85
9	61	89

Note Stem sloped 3° posteriorly. Stem length is 50mm on all nonporous sizes.

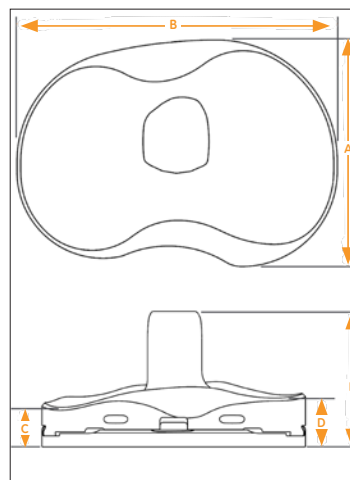
Tibial insert dimensions (mm)

JOURNEY® II BCS



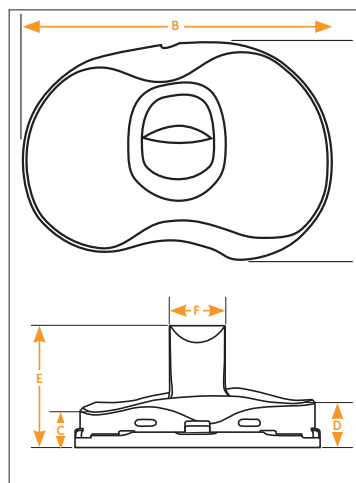
	Anterior	Posterior	Medial	Lateral	Medial Thickness*	Lateral Thickness*	Post Height*
9mm Insert	A	B	C	D	E		
Size 1-2	42	60	9.6	11.9	34.1		
Size 3-4	48	68	9.6	11.9	35.1		
Size 5-6	52	74	9.6	11.9	38.6		
Size 7-8	56	81	9.6	11.9	40.1		

JOURNEY II AS insert (mm)



	Anterior	Posterior	Medial	Lateral	Medial Thickness*	Lateral Thickness*	Post Height*
9mm Insert	A	B	C	D	E		
Size 1-2	42	60	9.6	12.1	34.1		
Size 3-4	48	68	9.6	12.1	35.1		
Size 5-6	52	74	9.6	12.1	38.6		
Size 7-8	56	81	9.6	12.1	40.1		

JOURNEY II Constrained



	Anterior	Posterior	Medial	Lateral	Medial Thickness*	Lateral Thickness*	Post Height*	Post Width
9mm Insert	A	B	C	D	E	F		
Size 1-2	42	60	9.6	12.1	34.1	16.1		
Size 3-4	48	68	9.6	12.1	35.3	16.1		
Size 5-6	52	74	9.6	12.1	38.6	16.1		
Size 7-8	56	81	9.6	12.1	40.1	16.1		

Insert offering/compatibility (All)

Insert Size	Femoral Size									
	1	2	3	4	5	6	7	8	9	10
1-2	●	●	●	●						
3-4		●	●	●	●	●				
5-6				●	●	●	●	●	●	
7-8**						●	●	●	●	●

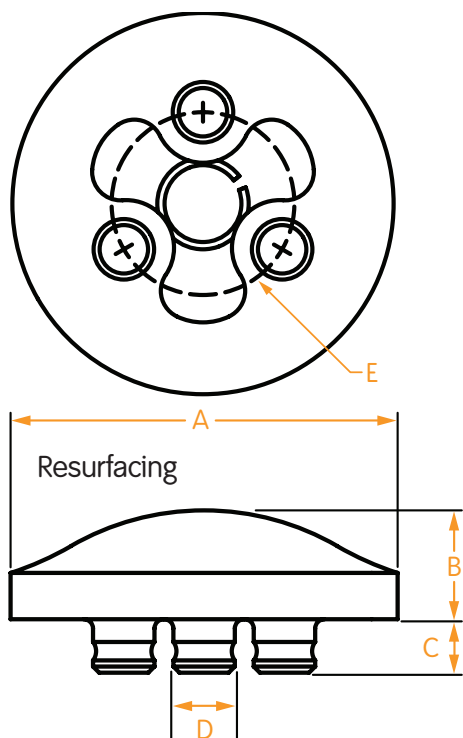
** Size 7-8 tibia inserts can also be used with size 9 tibia baseplates.

Minimum polyethylene thickness for a 9mm metal-backed component is 6.7mm on the medial side.

* Baseplate thickness included.

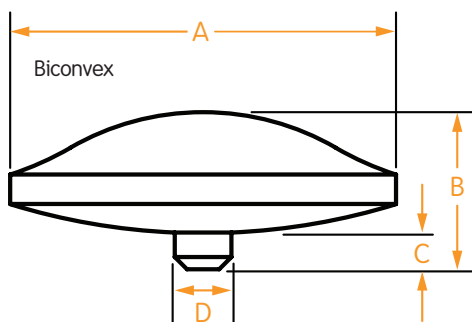
JOURNEY[◇] II Patellar Specifications

Patellar dimensions resurfacing (mm)



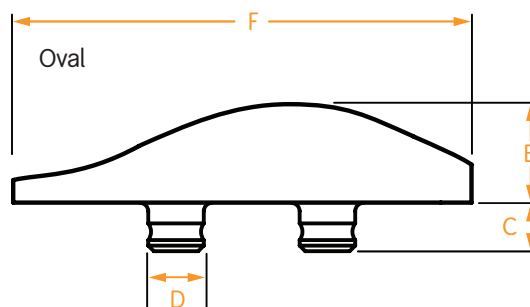
Size	A	B	C	D	E
26mm Std	26	9	4.4	5.1	15.3
29mm Std	29	9	4.4	5.1	15.3
32mm Std	32	9	4.4	5.1	15.3
35mm Std	35	9	4.4	5.1	17.9
38mm Std	38	9	4.4	5.1	17.9
41mm Std	41	9	4.4	5.1	17.9

Patellar dimensions biconvex (mm)



Size	A	B	C	D
23mm Std	23	13	4.1	4.7
26mm Std	26	13	4.1	4.7
29mm Std	29	13	3.1	4.7
32mm Std	32	13	3.1	4.7

Patellar dimensions oval (mm)



Size	A	B	C	D	E	F
29mm Std	29	8.5	4.4	5.1	15.3	35
32mm Std	32	9.0	4.4	5.1	15.3	38
35mm Std	35	9.0	4.4	5.1	17.9	41
38mm Std	38	9.5	4.4	5.1	17.9	44
41mm Std	41	10.0	4.4	5.1	17.9	47

JOURNEY II Patellar Options

Design	Brand	Thickness	Diameter (mm)						
Round, Resurfacing	JOURNEY	9mm	26	29	32	35	38	41	
	GENESIS [◇] II	9mm	26	29	32	35			
	JOURNEY	7.5mm	26	29	32	35			
	GENESIS II	7.5mm	26	29	32	35			
Biconvex	JOURNEY	13mm	23	26	29	32			
	GENESIS II	13mm	23	26	29	32			
Oval Resurfacing	GENESIS II	Range 8.5-10)	29	32	35	38	41		

JOURNEY Small patella should not be used with JOURNEY II
7402-4523, 7402-4526, 7402-4529, 7402-4726, 7402-4729, 7402-4732,

Alternate Femoral Alignment - Fixed

IM assembly

1. Attach the appropriate Fixed Valgus Bushing (4-7 Degrees) to the Fixed Valgus Guide Base.

Tip Position the bushing such that the appropriate hand (“LT” or “RT”) orients toward “ANTERIOR” on the Valgus Guide.

2. Attach the desired Valgus Bridge to the Valgus Guide Base (Figure 1).

Note The Valgus Bridge was designed to move anterior and posterior within the Valgus Guide to accommodate various patient morphology

3. Attach the IM rod to the T-handle and insert through the alignment assembly (Figure 3). IM rod will lock into the alignment assembly in one of four places (see Figure 2).

Note There are two locking positions on the IM Rod. If the alignment assembly can make a full rotation around the IM Rod, the second lock has not engaged. Remove the IM Rod and reengage.

4. Attach the Distal Femoral Cutting block onto the Bridge. Positioning the block and the dial on the adjustable bridge at the primary (“0”) resection level will ensure the cut will equal the distal thickness of the femoral prosthesis (Figure 4).

Note The Distal Femoral Cutting block is designed to pivot medial and lateral to accommodate various patient morphology.

Tip If surgeon preference is to pin the -2mm pin holes initially, it is recommended to add the Wide Distal Cut Block to the set.

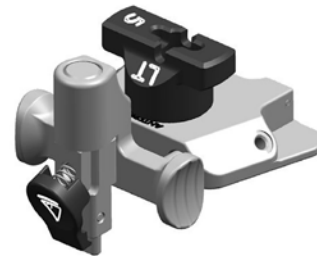


Figure 1



Figure 2

Figure 3

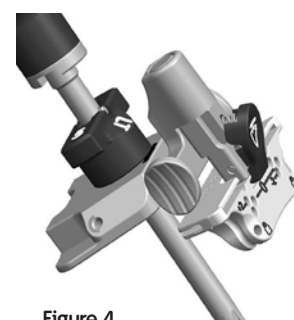


Figure 4



Fixed Valgus Bushing
4 Degrees 7401-6206
5 Degrees 7401-6207
6 Degrees 7401-6208
7 Degrees 7401-6209



Fixed Valgus Guide Base
7401-6200



Fixed Valgus Bridge
7401-6202



T-Handle
7167-4576



IM Rod
Long 7401-6211
Short 7401-6212



Distal Cutting Block
Wide 7401-6204
Standard 7401-6205

Intramedullary alignment

1. Open the femoral canal with the 9.5mm Intramedullary Drill. The drill has a 12mm step to open the entry point further (Figure 5).

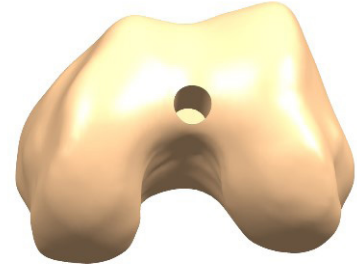


Figure 5

2. Slide the Intramedullary Rod of the alignment assembly into the femoral canal until the Valgus Guide contacts the distal femur (Figure 6).

Note There may be times when only one side of the guide will touch bone.

Note To avoid a shallow resection, it is recommended to not push the Bridge all the way into the Valgus Guide until it has been seated on the distal surface.

Tip Alternately, the Bridge can be assembled after seating the Valgus Guide onto the distal femur.

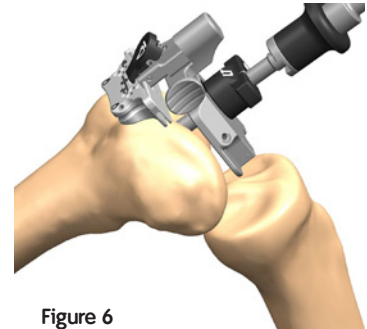









Figure 6

3. Orient rotation of the assembly neutral to the posterior condyles (Figure 7) insert a headed or non-headed 65mm SPEED PIN®(s) into one or both of the oblique pin holes.

Note Distal Cutting Guide will pivot to conform to the anterior bone geometry.



Figure 7

						
Fixed Valgus Bushing	Fixed Valgus Guide Base	Fixed Valgus Bridge	T-Handle	IM Rod	Distal Cutting Block	Intramedullary drill,
4 Degrees 7401-6206	7401-6200	7401-6202	7167-4576	Long 7401-6211	Wide 7401-6204	9.5mm
5 Degrees 7401-6207				Short 7401-6212	Standard 7401-6205	7401-2111
6 Degrees 7401-6208						
7 Degrees 7401-6209						

Distal resection

- Using non-headed 65mm SPEED PIN®(s), pin the distal femoral cutting block to the anterior femur using the holes marked '0'. Once adequate distal femoral resection is noted, headed or non-headed 65mm SPEED PIN(s) should be placed in one or both oblique pin holes for additional stability (Figure 8).

Note Resection level can be adjusted using the alternate pin holes on the cutting block, -2mm or +2mm of bone.

Tip The chamfer on the -2mm pin holes of the Standard Distal Cutting Block may cause pins to become stuck in the block. Place pin into pinhole before starting power.

Tip The oblique pin holes on the Distal Cut Block may come in contact with the IM rod. If any resistance is present, stop and assess.

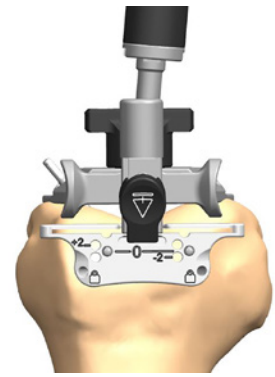


Figure 8

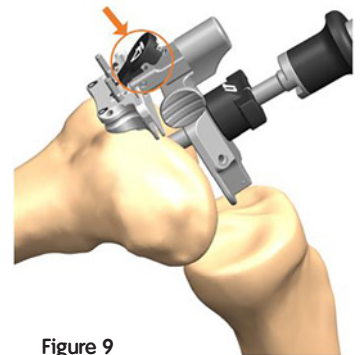


Figure 9

- Push the button on the Valgus Bridge (Figure 9) to remove the alignment assembly from the incision site. Only the distal cutting block should remain on the femur.

- Resect the distal femur (Figure 10) then remove the distal femoral cutting block.

Tip If the distal femoral resection is not adequate, remove the oblique SPEED PIN(s), and reposition the block through the pin holes marked +2mm and re-insert the oblique pin.

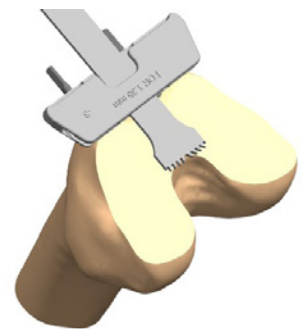


Figure 10



Fixed Valgus Bushing
 4 Degrees 7401-6206
 5 Degrees 7401-6207
 6 Degrees 7401-6208
 7 Degrees 7401-6209



Fixed Valgus Guide Base
 7401-6200



Fixed Valgus Bridge
 7401-6202



Distal Cutting Block
 Wide 7401-6204
 Standard 7401-6205



SPEED PIN
 Non-Headed 65mm
 7401-3480
 Headed 65mm
 7401-3472
 MIS Headed 65mm
 7401-6466

Alternate Tibia Alignment - Micro

Micro Alignment Assembly

1. Attach the EM Posterior Slope Guide to the Ankle Clamp (Figure 1) by depressing the button on the Slope Guide and slide to the appropriate position

Tip The neck of the Slope Guide should orient toward the arms and dials of the Ankle Clamp.

Note Each tooth is 1mm apart.



Figure 1

2. Attach the Micro EM Tibial Alignment Tube to the EM Posterior Slope Guide by depressing the inferior button on the Alignment Tube (Figure 2) and sliding to the desired position. Once the button is released, the height will be locked in position.

Tip The inferior button on Alignment Tube should face away from the arms of Ankle Clamp.

Note Each tooth is 1mm apart.



Figure 2

3. Attach the EM Tibial Alignment Guide Micro Head Dial to the Alignment Tube by depressing the button on the Micro Head Dial sliding it onto the Alignment Tube (Figure 3).
4. Attach the appropriate hand Cutting Guide Head to the Micro Adjustment Tibial Alignment Dial by engaging the threads and rotating the black dial (Figure 3).

Tip Adjust the Tibial Cutting Guide Head so that the "0" mark is aligned with the Micro Adjustment Tibial Alignment Dial.

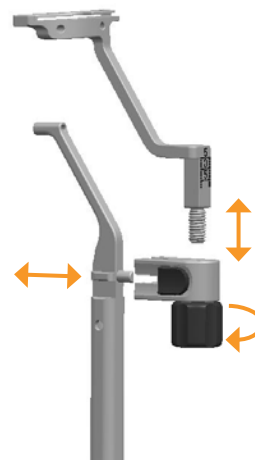


Figure 3

The 3 Degree Micro Head comes standard in the set. The 5 Degree Micro Head will be added to the set upon request.



Ankle Clamp
7401-6241



EM Posterior Slope Guide
7401-6231



EM Tibial Alignment
Tub Micro
7401-6233



Tibial Cutting Guide
Head 3 Degree
Left 7401-6237
Right 7401-6238



EM Tib Align Guide
Micro Head
7401-6236

Extramedullary alignment

1. Open the arms of ankle clamp and attach alignment jig to tibia. Adjust height and distance from the tibia (slope) by depressing the buttons on the Micro Alignment Tube and EM Posterior Slope Guide, respectively.
2. Once approximate resection level is set, use a headed 45mm SPEED PIN[®] to pin through the provisional pin hole in the EM Micro Tibial Alignment Tube Micro.
3. Insert the 2 and 10mm Pegged Tibial Stylus into the hole of the Cutting Guide (Figure 4).
4. Reference the desired condyle with the desired stylus level. Stylus arms rotate to reference desired location.
5. Adjust the cutting guide to the desired amount of resection by rotating the dial.

Note The Dial allows for 13mm of total proximal-distal adjustment.



Figure 4



EM Tibial Alignment
Tub Micro
7401-6233



Tibial Cutting Guide
Head 3 Degree
Left 7401-6237
Right 7401-6238



EM Tib Align Guide
Micro Head
7401-6236



Tibial Stylus 2 and 10mm Pegged
7401-6229



SPEED PIN
Headed 45mm
7401-3471
MIS Headed 45mm
7401-6465

Proximal resection

1. With the 2 and 10mm Pegged Tibia Stylus set to the desired resection level, using non-headed SPEED PIN[®](s), pin the cutting guide through the holes.
2. Remove the Tibia Stylus. Resect the proximal tibia (Figure 5) and remove the cutting guide.

Tip If an uncaptured saw cut is desired, the resection can be performed by cutting on top of the block. An additional 3mm will be needed to account for this offset.

Tip If additional resection is needed, the cutting guide can be adjusted by rotating the black dial.



Figure 5



EM Tibial Alignment
Tub Micro
7401-6233



Tibial Cutting Guide
Head 3 Degree
Left 7401-6237
Right 7401-6238



EM Tib Align Guide
Micro Head
7401-6236



SPEED PIN
Non-Headed 65mm
7401-3480
Headed 65mm
7401-3472
MIS Headed 65mm
7401-6466

Alignment substitutions

Standard offering		Mating component		Available substitution	
Cat. No	Description	Cat. No	Description	Cat. No	Description
7401-6205	Distal Femoral Cutting Block	7401-6203	Adjustable Valgus Bridge	7401-6204	Distal Femur Cutting Block Wide
7401-6216	Tibial Cutting Guide 3 Degree Left	7401-6232	Macro EM Tibial Alignment Tube	7401-6218	Tibial Cutting Guide Five Degree Left
7401-6217	Tibial Cutting Guide 3 Degree Right	7401-6232	Macro EM Tibial Alignment Tube	7401-6219	Tibial Cutting Guide Five Degree Right
7401-6216	Tibial Cutting Guide 3 Degree Left	7401-6232	Macro EM Tibial Alignment Tube	7401-6226	Tibial Cutting Guide Zero Degree Symmetric
7401-6217	Tibial Cutting Guide 3 Degree Right	7401-6232	Macro EM Tibial Alignment Tube		
7401-6216	Tibial Cutting Guide 3 Degree Left	7401-6232	Macro EM Tibial Alignment Tube	7401-6227	Tibial Cutting Guide Three Degree Symmetric
7401-6217	Tibial Cutting Guide 3 Degree Right	7401-6232	Macro EM Tibial Alignment Tube		
7401-6216	Tibial Cutting Guide 3 Degree Left	7401-6232	Macro EM Tibial Alignment Tube	7401-6228	Tibial Cutting Guide Five Degree Symmetric
7401-6217	Tibial Cutting Guide 3 Degree Right	7401-6232	Macro EM Tibial Alignment Tube		
7401-6232	Macro EM Tibial Alignment Tube	7401-6231	EM Posterior Slope Guide	7401-6234	EM Tibial Alignment Tube Legacy
7401-6237	Tibial Cutting Guide Head 3 Degree Left	7401-6236	EM Tibial Alignment Guide Micro Head	7401-6239	Tibial Cutting Guide Head Five Degree Left
7401-6238	Tibial Cutting Guide Head 3 Degree Right	7401-6236	EM Tibial Alignment Guide Micro Head	7401-6240	Tibial Cutting Guide Head Five Degree Right
7401-3723	18mm Spacer Plate	7401-6254	Extension Spacer Block	7401-3724	21mm Spacer Plate
7401-3723	18mm Spacer Plate	7401-6254	Extension Spacer Block	7401-3725	25mm Spacer Plate
7401-6255	Standard Flexion Spacer Block	7401-6213	EM Alignment Guide Handle	7401-6256	Wide Flexion Spacer Block

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*Compared to non-JOURNEY® II knees; Based on BCS evidence

**Based on BCS evidence

† We thank the patients and staff of all the hospitals in England, Wales and Northern Ireland who have contributed data to the National Joint Registry. We are grateful to the Healthcare Quality Improvement Partnership (HQIP), the NJR Research Sub-committee and staff at the NJR Centre for facilitating this work. The authors have conformed to the NJR's standard protocol for data access and publication. The views expressed represent those of the authors and do not necessarily reflect those of the National Joint Registry Steering Committee or the Health Quality Improvement Partnership (HQIP) who do not vouch for how the information is presented.

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28670 V3 71282167 REV B 04/22