

# Triathlon Knee System

Universal Baseplate  
Surgical Protocol



# Triathlon Knee System

## Universal Baseplate Surgical Protocol

### Table of Contents

<b>Acknowledgments</b> .....	2
<b>Introduction</b> .....	2
<b>Assembly Instructions</b> .....	4
<b>Tibial Preparation</b> .....	10
Option 1 – Extramedullary Referencing .....	10
Flexion/Extension Alignment .....	10
Varus/Valgus Alignment .....	10
Tibial Slope Adjustment .....	10
Rotational Alignment .....	11
Option 2 – Intramedullary Referencing .....	11
Rotational Alignment .....	12
Varus/Valgus Alignment .....	12
Establish Tibial Resection Level .....	13
Tibial Resection .....	14
Option 1: Tibial Augment Resection .....	14
Flexion and Extension Gaps .....	16
Tibial Component Sizing .....	16
Tibial Trial Assessment .....	16
Option 2: Tibial Augment Resection .....	18
Tibial Reaming for the Cemented Stem .....	19
Tibial Keel Punching .....	20
<b>Catalog</b> .....	22



# Triathlon Knee System

## Universal Baseplate Surgical Protocol

### Acknowledgments

Stryker Orthopaedics wishes to thank the entire Triathlon Universal Baseplate Surgeon Panel and the dozens of surgeons worldwide who guided the design and development of the Triathlon Universal Baseplate Instrumentation.

### Introduction

The Triathlon Knee System Instrumentation has been developed based on Stryker's 30-year orthopaedic history. The system combines the expertise of orthopaedic and human factors engineers with that of surgeons and OR staff worldwide.

### Indications

The Triathlon Total Knee System components are intended for use in primary total knee arthroplasty and revision of a uni-knee arthroplasty or High Tibial Osteotomy to alleviate pain and restore function for patients suffering from:

- ▶ Painful, disabling joint disease of the knee resulting from: degenerative arthritis, rheumatoid arthritis or post-traumatic arthritis.
- ▶ Post-traumatic loss of knee joint configuration and function.
- ▶ Moderate varus, valgus, or flexion deformity in which the ligamentous structures can be returned to adequate function and stability.
- ▶ Revision of previous unsuccessful uni-knee replacement or other procedure.
- ▶ Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- ▶ Absent or non-functioning posterior cruciate ligament.

### Contraindications

- ▶ Any active or suspected latent infection in or about the knee joint.
- ▶ Distant foci of infection which may cause hematogenous spread to the implant site.
- ▶ Any mental or neuromuscular disorder which would create an unacceptable risk of prosthesis instability, prosthesis fixation failure, or complications in post-operative care.
- ▶ Bone stock compromised by disease, infection or prior implantation which cannot provide adequate support and/or fixation to the prosthesis.
- ▶ Skeletal immaturity.
- ▶ Severe instability of the knee joint secondary to the absence of collateral ligament integrity and function.
- ▶ Obesity.

### Warnings and Precautions

The patient must be advised of both the limitations of the reconstruction and the need for protection of the implant from full weight bearing until adequate fixation and healing have occurred. Excessive activity and trauma affecting the joint replacement have been implicated in failure of the reconstruction by loosening, fracture and/or wear of the prosthetic implants. Loosening of the components can result in increased production of wear particles, as well as damage to the bone, making successful revision surgery more difficult.

The patient should be cautioned to limit activities and protect the replaced joint from unreasonable stresses, and to follow the instructions of the physician with respect to follow-up care and treatment.

The patient should be warned of surgical risks, and made aware of possible adverse effects. The patient should be warned that the device does not replicate the flexibility, strength, reliability, or durability of a normal healthy joint, that the implant can break or become damaged as a result of strenuous activity or trauma, and that the device has a finite service life and may need to be replaced in the future.

Appropriate selection, placement and fixation of the total knee components are critical factors which affect implant service life. As in the case of all prosthetic implants, the durability of these components is affected by numerous biologic, biomechanic and other extrinsic factors, which limit their service life. Accordingly, strict adherence to the indications, contraindications, precautions and warnings for this product is essential to potentially maximize service life.



# **Assembly Instructions**

# Triathlon Knee System

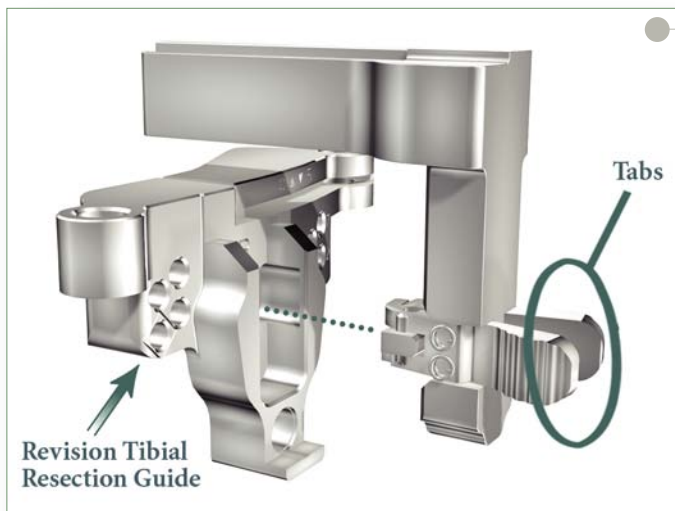
## Universal Baseplate Surgical Protocol

### Assembly Instructions

Many of the Triathlon Knee System Instruments have unique mechanisms incorporated to assist surgeons and OR staff, in a simplified, efficient surgical experience. Therefore, assembly instructions have been included in the first section of this surgical technique to assist with instruments that may be pre-assembled on the back table, as well as other instruments that need to be assembled.

All of the mechanisms that allow instruments to be adjusted and/or assembled have been polished.

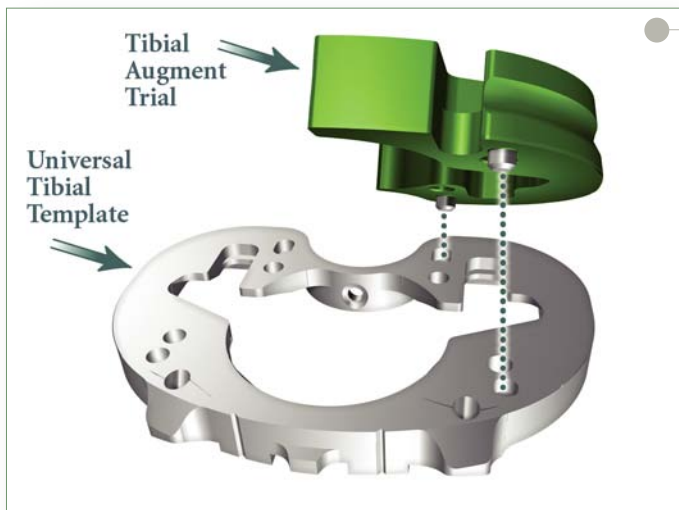
The surgical technique can be found in the next section beginning on page 10.



*Assembly 1*

#### ***Revision Tibial Resection Guide and Revision Sagittal Resection Guide Assembly:***

- ▶ Squeeze the tabs on the Revision Sagittal Resection Guide and insert into the Revision Tibial Resection Guide.
- ▶ Release the tabs and ensure that the Revision Sagittal Resection Guide is locked in place.



Assembly 2A

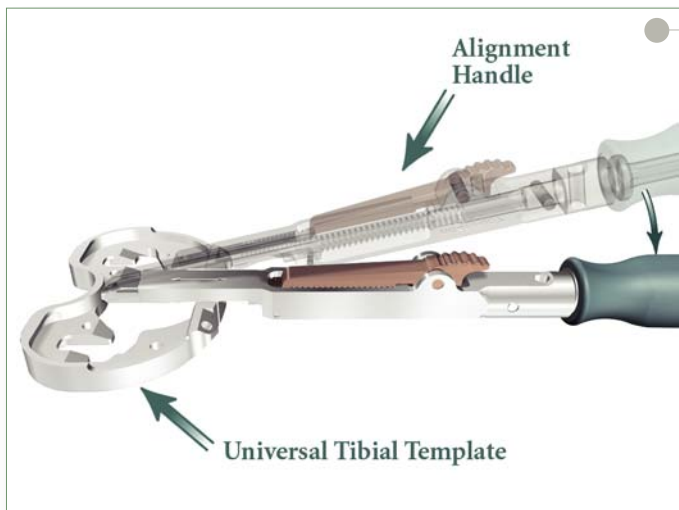
**Universal Tibial Template, Tibial Augment Trial, Alignment Handle and PS or CR Tibial Insert Trial Assembly:**

- ▶ Line up the pins of the Tibial Augment Trial with the holes on the corresponding sized Universal Tibial Template. Magnets in the Tibial Augment Trial will lock it to the Universal Tibial Template.



Assembly 2B

- ▶ Posterior hole and Channel of Universal Tibial Template.



Assembly 2C

- ▶ Depress and hold the bronze lever on the anterior position of the Alignment Handle. Insert the spring-loaded tip of the Alignment Handle into the central posterior hole of the Universal Tibial Template. Hold the handle at a slight angle to the top surface of the template.
- ▶ Compress the spring-loaded tip by pushing it forward and lower the Alignment Handle into the channel on the anterior portion of the Universal Tibial Template. Release the spring tension and allow the Alignment Handle to engage the Universal Tibial Template.
- ▶ Release the bronze lever to secure the assembly.

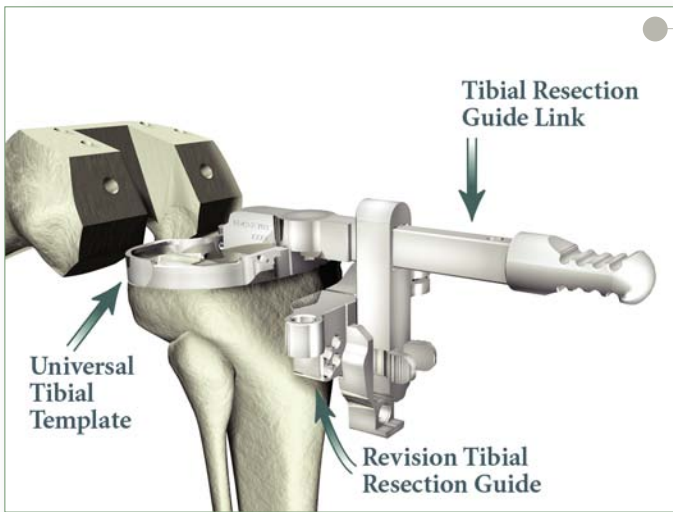
# Triathlon Knee System

## Universal Baseplate Surgical Protocol



*Assembly 2D*

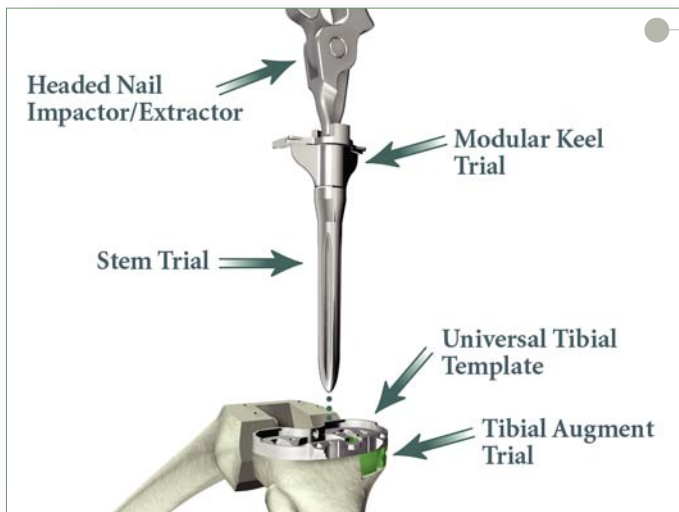
- ▶ Position a PS or CR Tibial Insert Trial to the Universal Tibial Template by first positioning it posteriorly, at a 20-30 degree angle to the template and then fully seat it anteriorly.



*Assembly 3*

### *Universal Tibial Template, Tibial Resection Guide Link, and Revision Tibial Resection Guide Assembly:*

- ▶ Squeeze the tabs on the Tibial Resection Guide Link and insert into the Revision Tibial Resection Guide.
- ▶ Release the tabs and ensure that the Revision Tibial Resection Guide is locked in place.
- ▶ Assemble the Tibial Resection Guide Link to the Universal Tibial Template by inserting the Tibial Resection Guide Link, at a slight angle to the Universal Tibial Template, into the two locating slots towards the posterior portion of the Universal Tibial Template.
- ▶ Allow the Tibial Resection Guide Link to sit flat on the Universal Tibial Template. Magnets in the Tibial Resection Guide Link will lock it to the Universal Tibial Template.



Assembly 4A

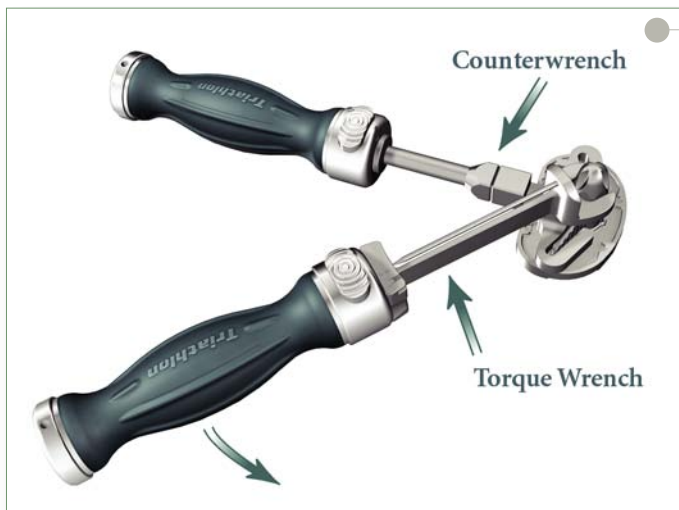
**Modular Keel Trial, Stem Trial, Tibial Augment Trial, and Universal Tibial Template Assembly:**

- ▶ Line up the pins of the Tibial Augment Trial with the holes on the corresponding sized Universal Tibial Template. Magnets in the Tibial Augment Trial will lock it to the Universal Tibial Template.
- ▶ Manually thread the appropriately sized Stem Trial into the Modular Keel Trial until the base of the threads of the Stem Trial sit flush with the distal-most surface of the Modular Keel Trial.



Assembly 4B

- ▶ Using the Headed Nail Impactor/Extractor, drop the Modular Keel Trial/Stem Trial subassembly down vertically through the top of the Universal Tibial Template. The Modular Keel Trial will seat flush in the Universal Tibial Template.



Assembly 5A

**Modular Handle, Tibial Counter Wrench, Universal Torque Wrench, Slip Torque Handle, 1/8" U-Joint Hex Drive, Universal Baseplate, Tibial Augment and Cemented Stem Assembly:**

**Note:** If not using a stem, re-torque end cap to 120 in-lbs using the Torque Wrench as indicated on assembly 5B.

- ▶ Snap both the Tibial Counter Wrench and Universal Torque Wrench into an Impaction Handle.
- ▶ Assemble the Tibial Counter Wrench over the keel of the Universal Baseplate and seat it flush over the distal side of the baseplate.
- ▶ Assemble the Universal Torque Wrench to the hex on the end cap of the Universal Baseplate. Torque the wrench counter-clockwise away from the Tibial Counter Wrench until the end cap loosens.
- ▶ Manually unthread the end cap and discard.



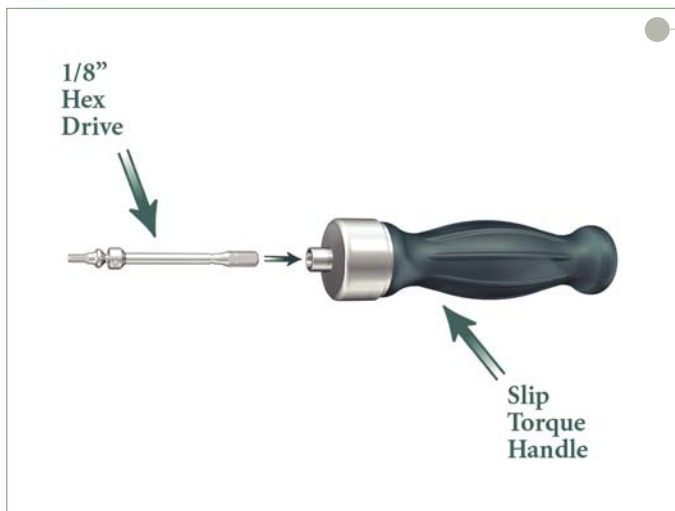
# Triathlon Knee System

## Universal Baseplate Surgical Protocol



*Assembly 5B*

- ▶ Manually thread the Cemented Stem into the boss of the Universal Baseplate.
- ▶ Assemble the Tibial Counter Wrench over the keel of the Universal Baseplate and seat it flush over the distal side of the baseplate.
- ▶ Assemble the Universal Torque Wrench to the hex on the Cemented Stem located at the base of the thread. Torque down the Cemented Stem to 120-180 in/lbs (See Inset).



*Assembly 5C*

- ▶ Snap the 1/8" U-Joint Hex Drive into the Slip Torque Handle.



*Assembly 5D*

- ▶ Place the Tibial Augment on the distal side of the Universal Baseplate. Verify both pins of the Tibial Augment are engaged into the slots on the underside of the Universal Baseplate and that the Tibial Augment is seated flush. Using the 1/8" U-Joint Hex Drive, torque the helical bolt captured within the tibial augment until the torque driver slips, at which time you will hear an audible click. Verify that the helical bolt is engaged with the slot cut into the keel of the Universal Baseplate. Repeat on a second augment if required on the other side.

# **Surgical Procedure**

# Triathlon Knee System

## Universal Baseplate Surgical Protocol

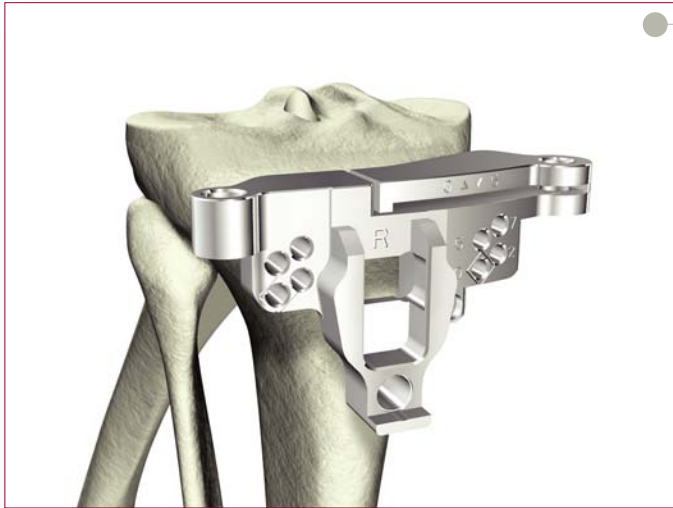


Figure 1



Figure 2

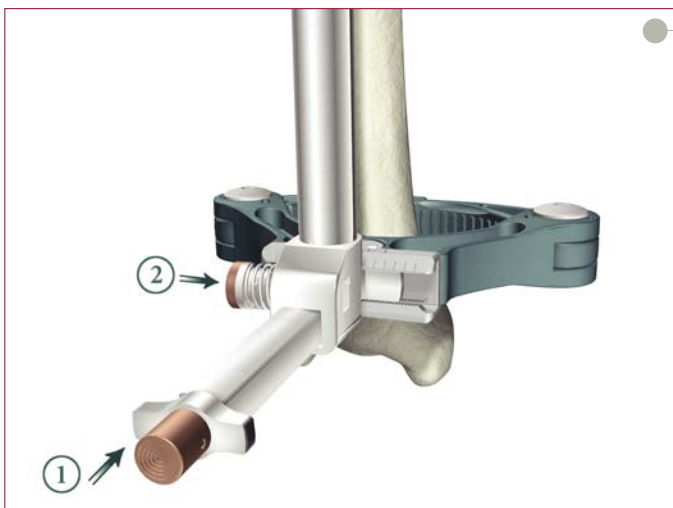


Figure 3

### Tibial Preparation

- ▶ There are two options for tibial preparation: extramedullary (EM) referencing alignment and intramedullary (IM) referencing alignment.
- ▶ The Revision Tibial Resection Guide, available in Left and Right configurations, as well as Captured and Open configurations, is designed to avoid soft tissue impingement.

### Option 1 – Extramedullary Referencing

- ▶ The tibial resection assembly has five parts: the appropriate Revision Tibial Resection Guide, the Ankle Clamp, the Distal Assembly, the Proximal Rod and the Tibial Adjustment Housing. These are assembled first.

**Note:** The 0° Tibial Adjustment Housing is available in 0° slope (posterior stabilized) and 3° slope (cruciate retaining). The 0° Tibial Adjustment Housing should always be used for preparing for the Universal Baseplate if a stem is indicated.

### Flexion/Extension Alignment

- ▶ The posterior long fixation pin of the Proximal Rod is partially seated in the proximal tibia to stabilize the assembly. Place the ankle clamp around the ankle and unlock the locking switch.
- ▶ Flexion/Extension alignment is correct when the long axis of the assembly parallels the mid-coronal plane of the tibia. Flexion/Extension alignment can be checked by verifying that the long axis of the assembly is parallel to the fibula.

### Varus/Valgus Alignment

- ▶ Medial/Lateral offset can be adjusted by pushing the bronze button (1) and sliding the assembly medially until the shaft intersects the center of the tibia.
- ▶ Once tri-axial alignment is achieved, release the bronze button.

### Tibial Slope Adjustment

**Note:** If the Proximal Rod is parallel to the tibia, the slope is 0 degrees.

- ▶ Tibial slope can be adjusted by pressing the bronze button (2).

## Instrument Bar



**Left** 6543-2-700  
**Right** 6543-2-701

Revision Tibial Resection Guide - Open



**Left** 6543-2-710  
**Right** 6543-2-711

Revision Tibial Resection Guide - Captured

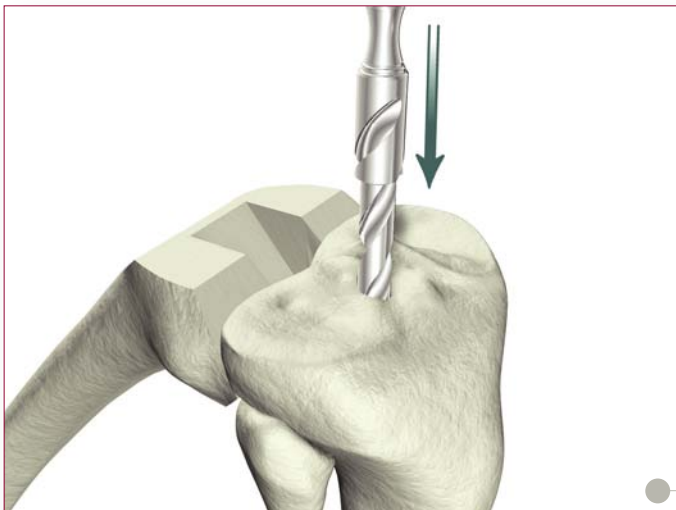
Tibial  
Preparation



**Figure 4**

### Rotational Alignment

- ▶ Rotate the entire assembly to ensure that the base of the assembly is aligned with the center of the ankle. The center of the ankle is generally in line with the second metatarsal or the medial 1/3 of the tibial tubercle.
- ▶ Fix the entire assembly in place by striking the proximal end of the Proximal Rod with a mallet, securing the two fixation pins.
- ▶ Once alignment is confirmed, set the bronze locking switch on the Distal Assembly to the locked position.



**Figure 5**

### Option 2 – Intramedullary Referencing

- ▶ Attach the 3/8" IM Drill to the Universal Driver and create a hole in the location determined by the pre-operative X-rays.

# Triathlon Knee System

## Universal Baseplate Surgical Protocol



Figure 6

- ▶ Attach the T-Handle Driver to the 5/16" IM Rod and slowly pass into the canal, ensuring clearance. Remove the 5/16" IM Rod and insert it into the body of the Tibial Alignment Jig IM. The assembly is then inserted into the canal until the isthmus is engaged.

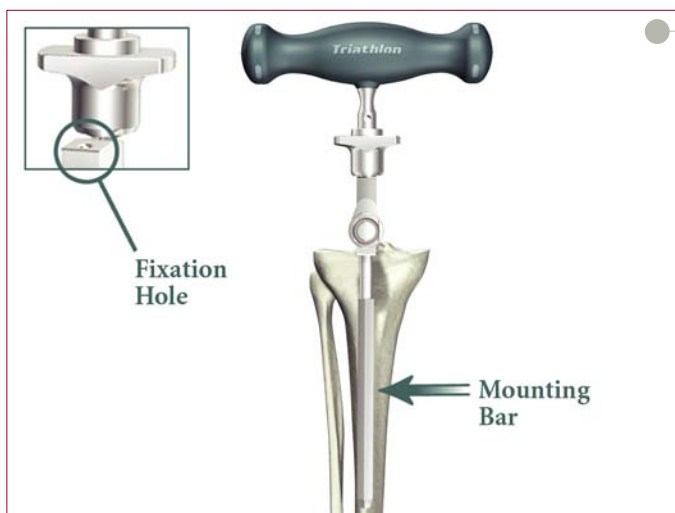


Figure 7

### Rotational Alignment

- ▶ With the body of the Tibial Alignment Jig IM resting on the proximal tibia, proper rotational alignment is achieved by rotating the instrument about the 5/16" IM Rod so that the vertical mounting bar is over the medial 1/3 of the tibial tubercle. A Headless Pin or the 1/8" Drill is then inserted into the fixation hole to fix rotation (See Inset).



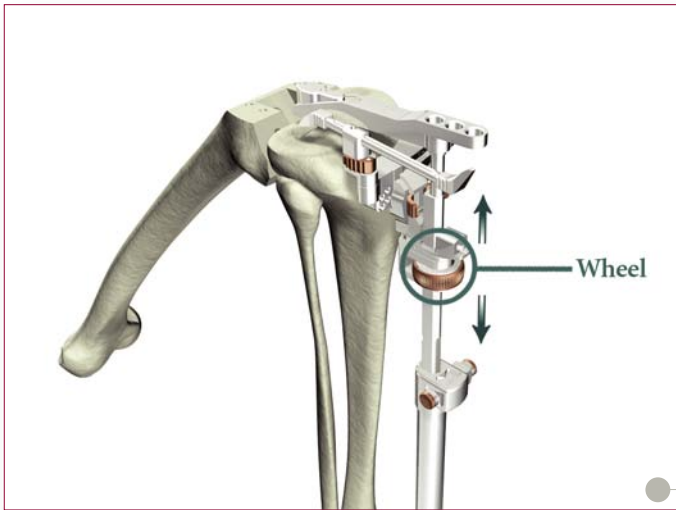
Figure 8

### Varus/Valgus Alignment

- ▶ Assemble the appropriate Revision Tibial Resection Guide (left or right) and Tibial Adjustment Housing.

**Note:** The 0° Tibial Adjustment Housing is available in 0° slope (posterior stabilized) and 3° slope (cruciate retaining). The 0° Tibial Adjustment Housing should always be used for preparing for the Universal Baseplate if a stem is indicated.

- ▶ Attach the assembly onto the mounting bar by pressing the bronze wheel on the Tibial Adjustment Housing. Attach the Universal Alignment Handle to the Revision Tibial Resection Guide and slide a Universal Alignment Rod through the handle for sagittal assessment.
- ▶ When alignment is confirmed, the Universal Alignment Handle should be centered over the ankle.



**Figure 9**

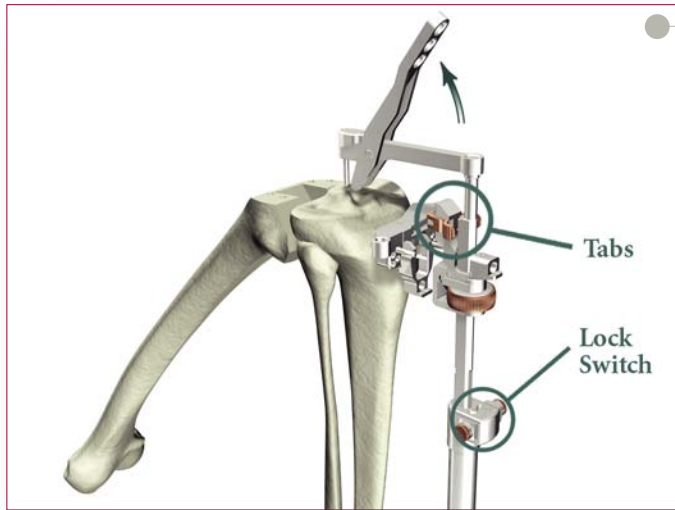
[The following applies to both extramedullary and intramedullary alignment.]

### ***Establish Tibial Resection Level***

- ▶ The Tibial Stylus attaches to the Revision Tibial Resection Guide with the “9” end referencing the lowest level of the unaffected compartment.
- ▶ 9mm of bone will be resected with the initial proximal tibial resection. Alternatively, if the “2” end of the Tibial Stylus is used, the amount of bone resected with the initial proximal tibial resection will be 2mm below the tip of the stylus.
- ▶ The height of the Revision Tibial Resection Guide, Tibial Stylus and Tibial Adjustment Housing can be adjusted using the bronze wheel on the Tibial Adjustment Housing. For coarse adjustment, press the bronze wheel and slide the assembly up or down. For fine adjustment, turn the bronze wheel to the right to move the assembly up the Proximal Rod or turn left to move the assembly down the Proximal Rod.

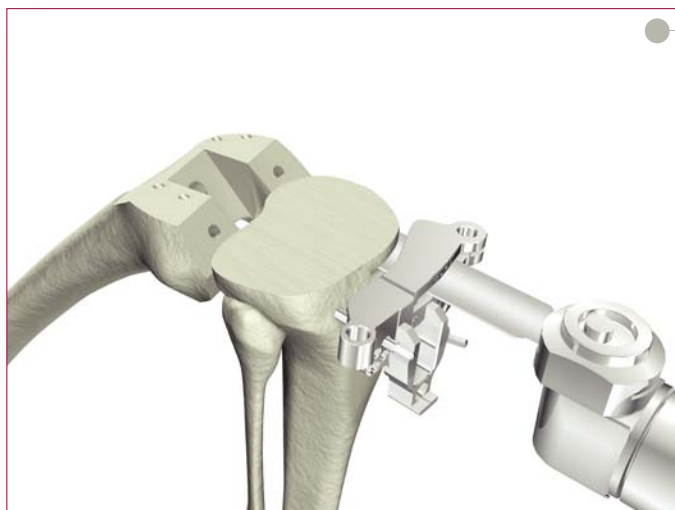
# Triathlon Knee System

## Universal Baseplate Surgical Protocol



**Figure 10**

- ▶ Remove all alignment instruments leaving only the Revision Tibial Resection Guide in place.
- If Option 1 EM Alignment was used: The Ankle Clamp, Distal Assembly, Proximal Rod and Tibial Adjustment Housing are removed. To remove the assembly, release the bronze lock switch, squeeze the bronze wheel on the Tibial Adjustment Housing and lift the lever arm on the Proximal Rod while holding the wheel release high enough to clear pins. Squeeze the bronze tabs and remove the ankle clamp assembly. This will allow the assembly to dis-engage from the Revision Tibial Resection Guide and release the fixation pegs from the plateau.
- If Option 2 IM Alignment was used: Squeeze the bronze tabs on the Tibial Adjustment Housing to dis-engage the assembly from the Revision Tibial Resection Guide. Slide the Tibial Adjustment Housing anteriorly. Remove the 5/16" IM Rod, the Tibial Alignment Jig IM, the Tibial Adjustment Housing and the Universal Alignment Handle.



**Figure 11**

### ***Tibial Resection***

- ▶ Initial resection of the proximal tibia is now completed.

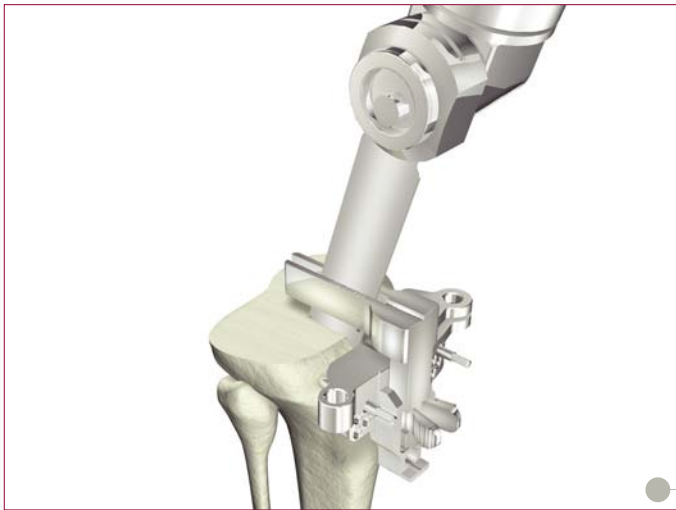
### **Option 1: Tibial Augment Resection**

- ▶ If an additional 5mm tibial augment resection is required, resect the tibia through the slot marked "∇5" on the Revision Tibial Resection Guide. Optionally, to make an open-faced 5mm tibial augment resection, remove the "X" pin and drop the resection guide down onto the +5mm pins. Resect the tibia on the top surface of the resection guide.



6543-2-702

Tibial Sagittal Resection Guide



*Figure 12*

- ▶ If an additional 10mm tibial augment resection is required, remove the “X” pin and drop the resection guide down onto the +5mm pins. Resect the tibia through the slot marked “∇5” on the Revision Tibial Resection Guide.
- ▶ If a 5mm or 10mm augment resection has been made, the sagittal slot in the center of the Revision Tibial Resection guide can be used with a sagittal saw to complete the augment resection. This sagittal resection will over-resect the tibia 3mm sagittally relative to the tibial augment. Optionally, assemble the Revision Sagittal Resection Guide to the Revision Tibial Resection Guide. To resect the tibia sagittally line-to-line with the tibial augment, resect along the side wall (closest to the augment resection) of the sagittal resection guide. To over-resect the tibia 3mm sagittally, resect through the central slot of the guide. Over-resection of the tibia 3mm sagittally will allow for approximately +/- 3 degree of rotation when determining the rotation of the tibial component.
- ▶ Remove the Revision Tibial Resection Guide.



# Triathlon Knee System

## Universal Baseplate Surgical Protocol

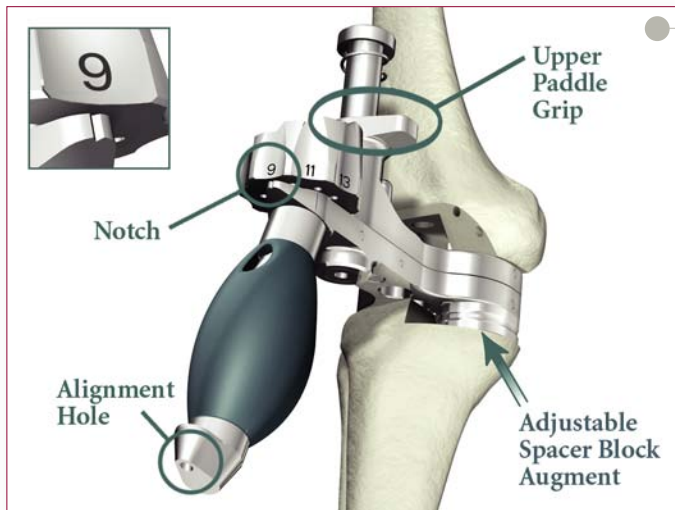


Figure 13

### Flexion and Extension Gaps

- ▶ The flexion gap (90 degree) and the extension gap (0 degree) may be assessed using the Adjustable Spacer Block. If tibial augmentation has been prepared for, assemble the appropriate thickness of Spacer Block Augment to the appropriate side of the lower paddle. The numbers on the thumbwheel correspond to the implant insert thickness. Lift the Upper Paddle Grip to free the adjustment wheel. Align the notch with the appropriate thickness (see Inset) and assess the gap space until the appropriate insert thickness is established.
- ▶ A Universal Alignment Rod can be placed through the hole on the Adjustable Spacer Block to check alignment.

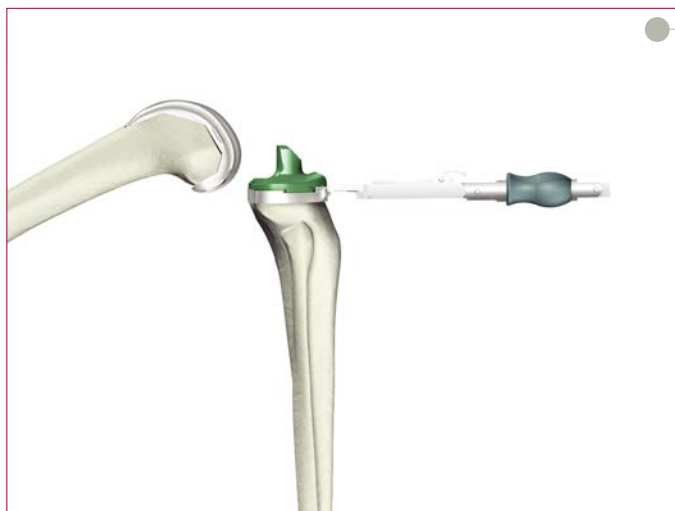


Figure 14

### Tibial Component Sizing

- ▶ Place the PS or CR Femoral Trial on the femur.
- ▶ Sublux the tibia anteriorly. Assemble a Universal Tibial Template, the appropriate Tibial Augment Trial(s), Alignment Handle and a PS or CR Tibial Insert Trial.
- ▶ Place the assembly on the resected tibial plateau and choose the size that best addresses rotation and coverage.
- ▶ Perform a trial reduction to assess overall component fit, ligament stability and joint range of motion.

**Note:** Ensure all excess debris (bone and soft tissue) is cleared from the Universal Tibial Template.

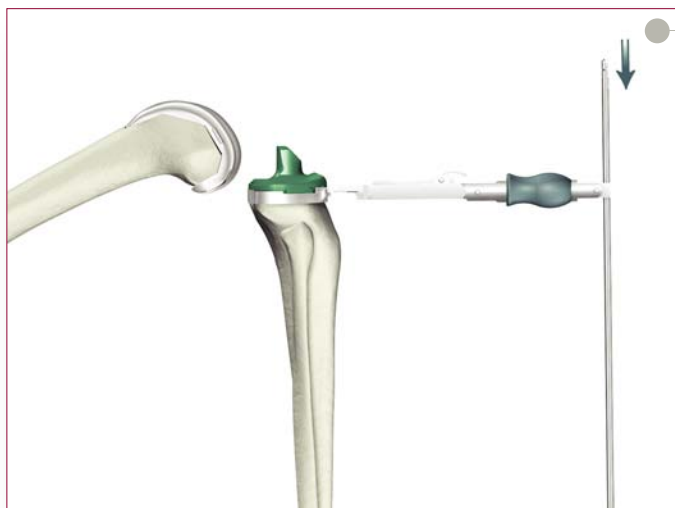


Figure 15

### Tibial Trial Assessment

- ▶ For an optional tibial alignment check, insert a Universal Alignment Rod into the most anterior hole of the Alignment Handle and check alignment.

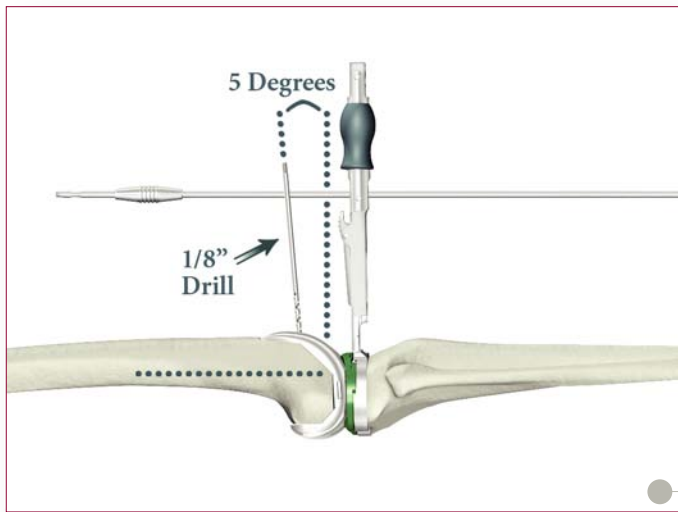
## Instrument Bar



**5mm 6543-4-605**

**10mm 6543-4-610**

Adjustable Spacer Block Augment



**Figure 16**

- ▶ Place the knee in full extension and assess overall alignment in the A/P and M/L planes.
- ▶ A 1/8" drill can be inserted into the lateral hole on the anterior surface of the Femoral Trial to aid in alignment.

# Triathlon Knee System

## Universal Baseplate Surgical Protocol

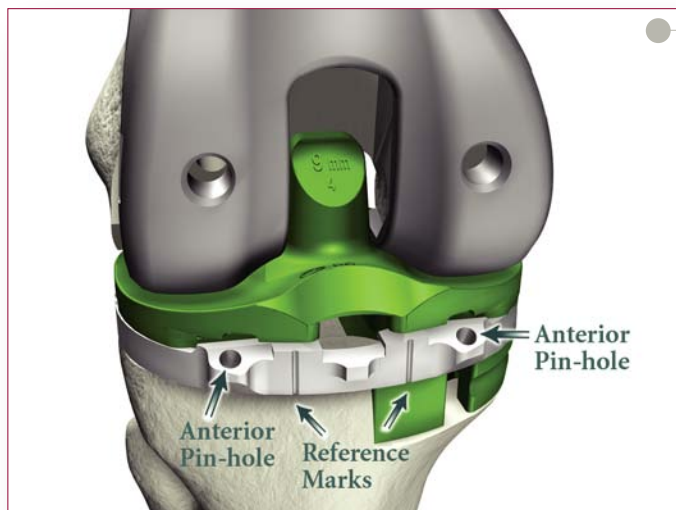


Figure 17

- ▶ There are two options to secure the Universal Tibial Template to the tibia:
  - Option 1: Once satisfactory alignment and tibial component orientation are achieved, remove the PS or CR Femoral Trial. Place two Headless Pins in the anterior holes to secure the Universal Tibial Template. Dis-assemble the Tibial Trial Insert from the Universal Tibial Template.
  - Option 2: Once satisfactory alignment and tibial component orientation are achieved, mark the anterior tibial cortex in line with the reference marks on the anterior border of the Universal Tibial Template. Remove the PS or CR Femoral Trial and dis-assemble the Tibial Trial Insert from the Universal Tibial Template. Reposition the Universal Tibial Template (if required) by aligning the anterior reference marks on the template with the reference marks on the anterior cortex. The template is positioned flush to the anterior tibial cortex. Place two Headless Pins in the anterior holes to secure the Universal Tibial Template.

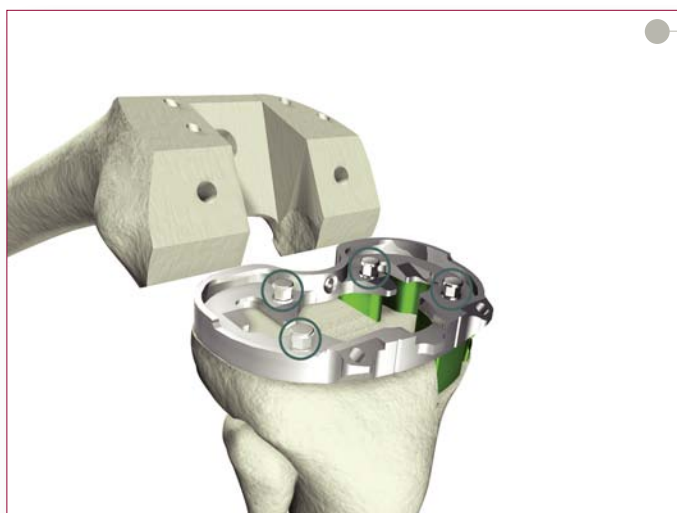


Figure 18

- ▶ If additional fixation is required after either Option 1 or 2 is used, place up to four Headed Nails in the holes on the Universal Tibial Template into the tibial plateau.
- ▶ Trials may be re-assembled to the pinned template for any subsequent trial reductions.

### Option 2: Tibial Augment Resection

- ▶ Assemble the Revision Tibial Resection Guide to the Tibial Resection Guide Link.
- ▶ Assemble the Tibial Resection Guide Link to the Universal Tibial Template. The Tibial Resection Guide Link will automatically shift the Revision Tibial Resection Guide distally 5mm such that the open face resection will prepare for a 5mm augment.
- ▶ If an additional 10mm tibial augment resection is required, resect the tibia through the slot marked “∇5” in the Revision Tibial Resection Guide. Optionally, to make an open-faced 10mm tibial augment resection, remove the “X” pin and drop the resection guide down onto the +5mm pins. Resect the tibia on the top surface of the resection guide.
- ▶ Remove the Universal Tibial Template, Revision Tibial Resection Guide and Tibial Resection Guide Link. Assemble the appropriately sized Tibial Augment Trial to the Universal Tibial Template and pin the construct to the proximal tibia.

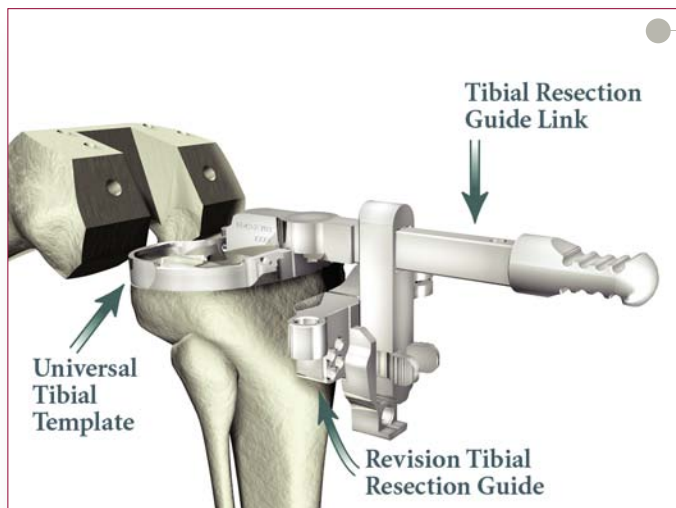


Figure 19



**See Catalog**

Tibial Augment Trial



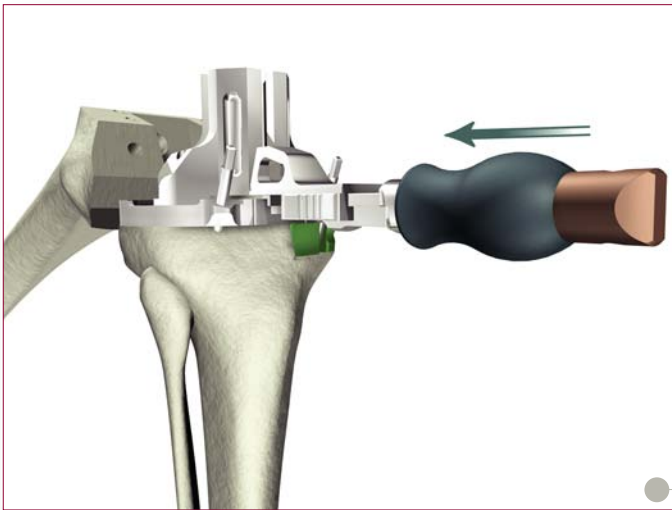
**6543-2-703**

Tibial Resection Guide Link



**6543-4-517**

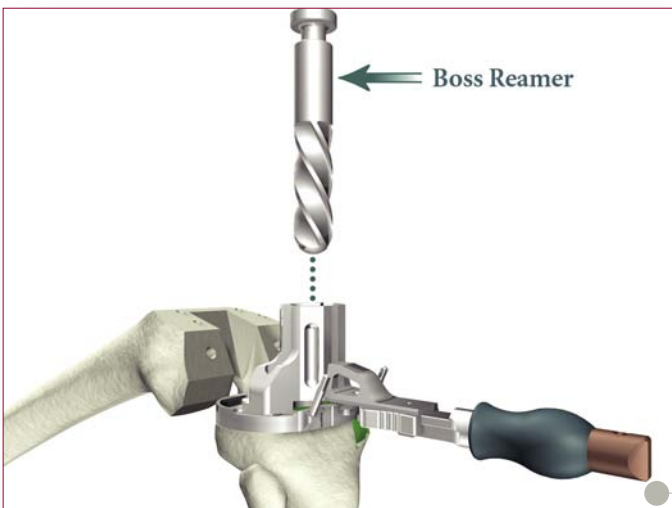
Tibial Boss Reamer



**Figure 20**

### *Tibial Reaming for the Cemented Stem*

- ▶ Assemble the Keel Punch Guide to the Universal Tibial Template by inserting, at a slight angle to the top of the Universal Tibial Template, into the two locating slots toward the posterior portion of the Universal Tibial Template. Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template.

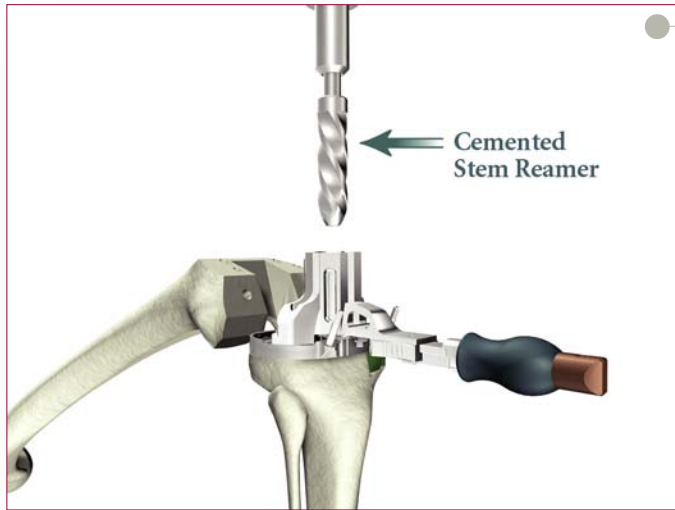


**Figure 21**

- ▶ Attach the Boss Reamer to the Universal Driver. Place the Boss Reamer into the Keel Punch Guide. Ream to the appropriate depth marker indicated by the step on the Reamer shank (Up to the step for Size 1-3 Keel Punch Guide and all the way to the stop for Size 4-8 Keel Punch guide).

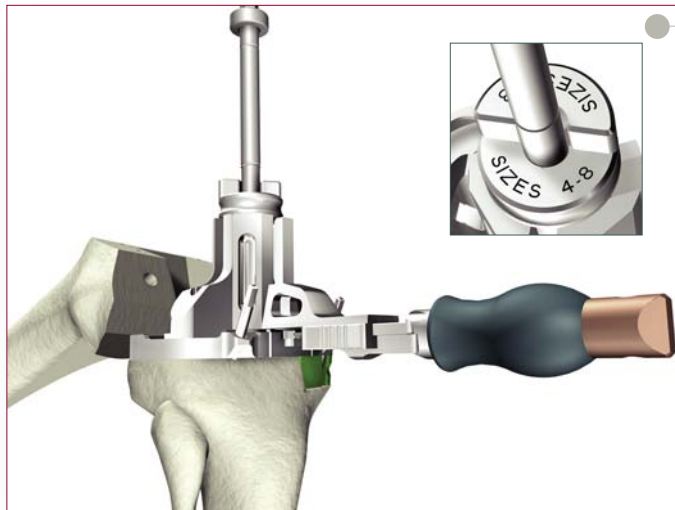
# Triathlon Knee System

## Universal Baseplate Surgical Protocol



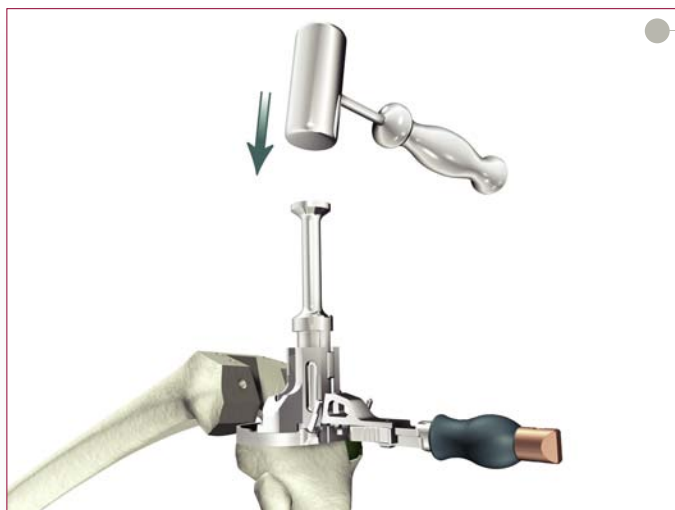
*Figure 22*

- ▶ Attach the appropriate Cemented Stem Reamer to the Universal Driver. Place the Cemented Stem Reamer into the Keel Punch Guide, inserting the Cemented Stem Reamer Bushing into the central hole of the Keel Punch Guide.



*Figure 23*

- ▶ The Cemented Stem Reamer Bushing has two depth indicators: one correlates to the Size 1-3 Keel Punch Guide and the other correlates to the Size 4-8 Keel Punch Guide (see inset). Ream until the appropriate depth marker (50mm or 100mm), indicated by a groove on the Cemented Stem Reamer, lines up with the appropriate surface on the Cemented Stem Reamer Bushing.



*Figure 24*

### *Tibial Keel Punching*

- ▶ With the Keel Punch Guide still assembled to the Universal Tibial Template, place the appropriate Keel Punch into the Keel Punch Guide. Use a mallet to impact the punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide.

# Triathlon Knee System

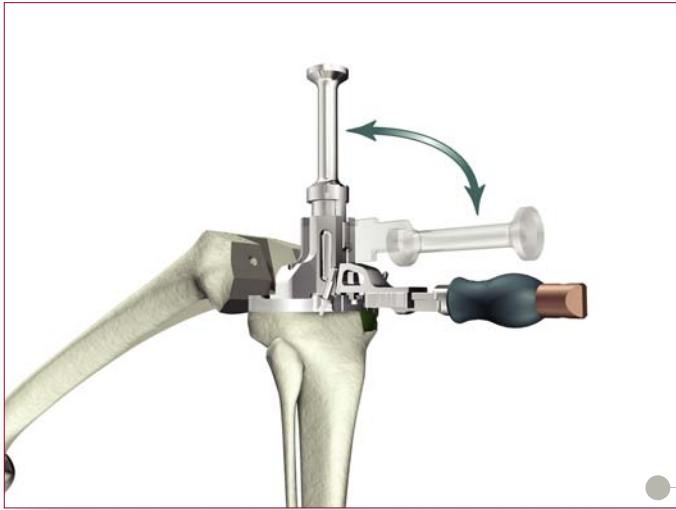
## Universal Baseplate Surgical Protocol

### Instrument Bar

11mm 6543-4-511

14mm 6543-4-514

Cemented Stem Reamer



*Figure 25*

- ▶ To extract the Keel Punch, lift up on the Keel Punch Guide handle and pull the handle to cantilever the Keel Punch out of the tibia.

# Triathlon Knee System

## Universal Baseplate Surgical Protocol

Catalog #	Description	Quantity in Kit
<b>Triathlon Universal Baseplate Preparation Kit Contents - Upper Tray</b>		
6543-2-620	Modular Keel Trial	1
6543-2-700*	Revision Tibial Resection Guide - Left Open	1
6543-2-701*	Revision Tibial Resection Guide - Right Open	1
6543-2-702	Tibial Sagittal Resection Guide	1
6543-2-703	Tibial Resection Guide Link	1
6543-2-710*	Revision Tibial Resection Guide - Left Captured	1
6543-2-711*	Revision Tibial Resection Guide - Right Captured	1
6543-4-511	Cemented Stem Reamer - 11mm	1
6543-4-514	Cemented Stem Reamer - 14mm	1
6543-4-517	Tibial Boss Reamer	1
6543-4-605	Adjustable Spacer Block Augment - 5mm	2
6543-4-610	Adjustable Spacer Block Augment - 10mm	2
6543-4-800	Tibial Counter Wrench	1
6543-4-802	1/8" U-Joint Hex Drive	1
6543-4-818	Universal Torque Wrench	1
6541-8-040	Triathlon Universal Baseplate Preparation Upper Tray	1
6541-9-000	Triathlon Case	1
		<b>Total Quantity 19</b>

\* Note: Only one set of Revision Tibial Resection Guides (Open or Captured) comes with each kit.

Catalog #	Description	Quantity in Kit
<b>Triathlon Universal Baseplate Preparation Kit Contents - Lower Tray</b>		
5560-T-112	Cemented Stem Trial - 12 x 50mm	1
5560-T-209	Cemented Stem Trial - 9 x 100mm	1
5560-T-212	Cemented Stem Trial - 12 x 100mm	1
5545-T-101	Tibial Augment Trial #1 LM/RL - 5mm	1
5545-T-102	Tibial Augment Trial #1 RM/LL - 5mm	1
5545-T-201	Tibial Augment Trial #2 LM/RL - 5mm	1
5545-T-202	Tibial Augment Trial #2 RM/LL - 5mm	1
5545-T-301	Tibial Augment Trial #3 LM/RL - 5mm	1
5545-T-302	Tibial Augment Trial #3 RM/LL - 5mm	1
5545-T-401	Tibial Augment Trial #4 LM/RL - 5mm	1
5545-T-402	Tibial Augment Trial #4 RM/LL - 5mm	1
5545-T-501	Tibial Augment Trial #5 LM/RL - 5mm	1
5545-T-502	Tibial Augment Trial #5 RM/LL - 5mm	1
5545-T-601	Tibial Augment Trial #6 LM/RL - 5mm	1
5545-T-602	Tibial Augment Trial #6 RM/LL - 5mm	1
5545-T-701	Tibial Augment Trial #7 LM/RL - 5mm	1
5545-T-702	Tibial Augment Trial #7 RM/LL - 5mm	1
5545-T-801	Tibial Augment Trial #8 LM/RL - 5mm	1
5545-T-802	Tibial Augment Trial #8 RM/LL - 5mm	1
5546-T-101	Tibial Augment Trial #1 LM/RL - 10mm	1
5546-T-102	Tibial Augment Trial #1 RM/LL - 10mm	1
5546-T-201	Tibial Augment Trial #2 LM/RL - 10mm	1
5546-T-202	Tibial Augment Trial #2 RM/LL - 10mm	1
5546-T-301	Tibial Augment Trial #3 LM/RL - 10mm	1
5546-T-302	Tibial Augment Trial #3 RM/LL - 10mm	1
5546-T-401	Tibial Augment Trial #4 LM/RL - 10mm	1
5546-T-402	Tibial Augment Trial #4 RM/LL - 10mm	1
5546-T-501	Tibial Augment Trial #5 LM/RL - 10mm	1
5546-T-502	Tibial Augment Trial #5 RM/LL - 10mm	1
5546-T-601	Tibial Augment Trial #6 LM/RL - 10mm	1
5546-T-602	Tibial Augment Trial #6 RM/LL - 10mm	1
5546-T-701	Tibial Augment Trial #7 LM/RL - 10mm	1
5546-T-702	Tibial Augment Trial #7 RM/LL - 10mm	1
5546-T-801	Tibial Augment Trial #8 LM/RL - 10mm	1
5546-T-802	Tibial Augment Trial #8 RM/LL - 10mm	1
6541-8-140	Triathlon Universal Baseplate Preparation Lower Tray	1
<b>Total Quantity</b>		<b>36</b>



# Triathlon Knee System

## Universal Baseplate Surgical Protocol

Catalog #	Description	
<b>Universal Baseplate Tibial Augment Part Numbers</b>		
5545-A-101	Tibial Augment, Half Block #1	Right Lateral, Left Medial - 5mm
5545-A-102	Tibial Augment, Half Block #1	Left Lateral, Right Medial - 5mm
5545-A-201	Tibial Augment, Half Block #2	Right Lateral, Left Medial - 5mm
5545-A-202	Tibial Augment, Half Block #2	Left Lateral, Right Medial - 5mm
5545-A-301	Tibial Augment, Half Block #3	Right Lateral, Left Medial - 5mm
5545-A-302	Tibial Augment, Half Block #3	Left Lateral, Right Medial - 5mm
5545-A-401	Tibial Augment, Half Block #4	Right Lateral, Left Medial - 5mm
5545-A-402	Tibial Augment, Half Block #4	Left Lateral, Right Medial - 5mm
5545-A-501	Tibial Augment, Half Block #5	Right Lateral, Left Medial - 5mm
5545-A-502	Tibial Augment, Half Block #5	Left Lateral, Right Medial - 5mm
5545-A-601	Tibial Augment, Half Block #6	Right Lateral, Left Medial - 5mm
5545-A-602	Tibial Augment, Half Block #6	Left Lateral, Right Medial - 5mm
5545-A-701	Tibial Augment, Half Block #7	Right Lateral, Left Medial - 5mm
5545-A-702	Tibial Augment, Half Block #7	Left Lateral, Right Medial - 5mm
5545-A-801	Tibial Augment, Half Block #8	Right Lateral, Left Medial - 5mm
5545-A-802	Tibial Augment, Half Block #8	Left Lateral, Right Medial - 5mm
5546-A-101	Tibial Augment, Half Block #1	Right Lateral, Left Medial - 10mm
5546-A-102	Tibial Augment, Half Block #1	Left Lateral, Right Medial - 10mm
5546-A-201	Tibial Augment, Half Block #2	Right Lateral, Left Medial - 10mm
5546-A-202	Tibial Augment, Half Block #2	Left Lateral, Right Medial - 10mm
5546-A-301	Tibial Augment, Half Block #3	Right Lateral, Left Medial - 10mm
5546-A-302	Tibial Augment, Half Block #3	Left Lateral, Right Medial - 10mm
5546-A-401	Tibial Augment, Half Block #4	Right Lateral, Left Medial - 10mm
5546-A-402	Tibial Augment, Half Block #4	Left Lateral, Right Medial - 10mm
5546-A-501	Tibial Augment, Half Block #5	Right Lateral, Left Medial - 10mm
5546-A-502	Tibial Augment, Half Block #5	Left Lateral, Right Medial - 10mm
5546-A-601	Tibial Augment, Half Block #6	Right Lateral, Left Medial - 10mm
5546-A-602	Tibial Augment, Half Block #6	Left Lateral, Right Medial - 10mm
5546-A-701	Tibial Augment, Half Block #7	Right Lateral, Left Medial - 10mm
5546-A-702	Tibial Augment, Half Block #7	Left Lateral, Right Medial - 10mm
5546-A-801	Tibial Augment, Half Block #8	Right Lateral, Left Medial - 10mm
5546-A-802	Tibial Augment, Half Block #8	Left Lateral, Right Medial - 10mm

Catalog #	Description
-----------	-------------

**Universal Baseplate Tibial Part Numbers**

5521-B-100	Universal Tibial Baseplate	Cemented #1
5521-B-200	Universal Tibial Baseplate	Cemented #2
5521-B-300	Universal Tibial Baseplate	Cemented #3
5521-B-400	Universal Tibial Baseplate	Cemented #4
5521-B-500	Universal Tibial Baseplate	Cemented #5
5521-B-600	Universal Tibial Baseplate	Cemented #6
5521-B-700	Universal Tibial Baseplate	Cemented #7
5521-B-800	Universal Tibial Baseplate	Cemented #8

**Universal Baseplate Cemented Stem Part Numbers**

5560-S-112	Cemented Stem	12 x 50mm
5560-S-209	Cemented Stem	9 x 100mm
5560-S-212	Cemented Stem	12 x 100mm

---

**Joint Replacements**

---

**Trauma, Extremities & Deformities**

---

**Craniomaxillofacial**

---

**Spine**

---

**Biologics**

---

**Surgical Products**

---

**Neuro & ENT**

---

**Interventional Pain**

---

**Navigation**

---

**Endoscopy**

---

**Communications**

---

**Imaging**

---

**Patient Handling Equipment**

---

**EMS Equipment**

325 Corporate Drive  
Mahwah, NJ 07430  
t: 201 831 5000

[www.stryker.com](http://www.stryker.com)

A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

The information presented is intended to demonstrate the breadth of Stryker product offerings. A surgeon must always refer to the package insert, product label and/or instructions for use before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.

Stryker Corporation or its divisions or other corporate affiliated entities own, use or have applied for the following trademarks or service marks: Stryker and Triathlon. All other trademarks are trademarks of their respective owners or holders.

Literature Number: **LSPK44 Rev. 1**  
MS/GS 1M 03/09

Copyright © 2009 Stryker  
Printed in USA