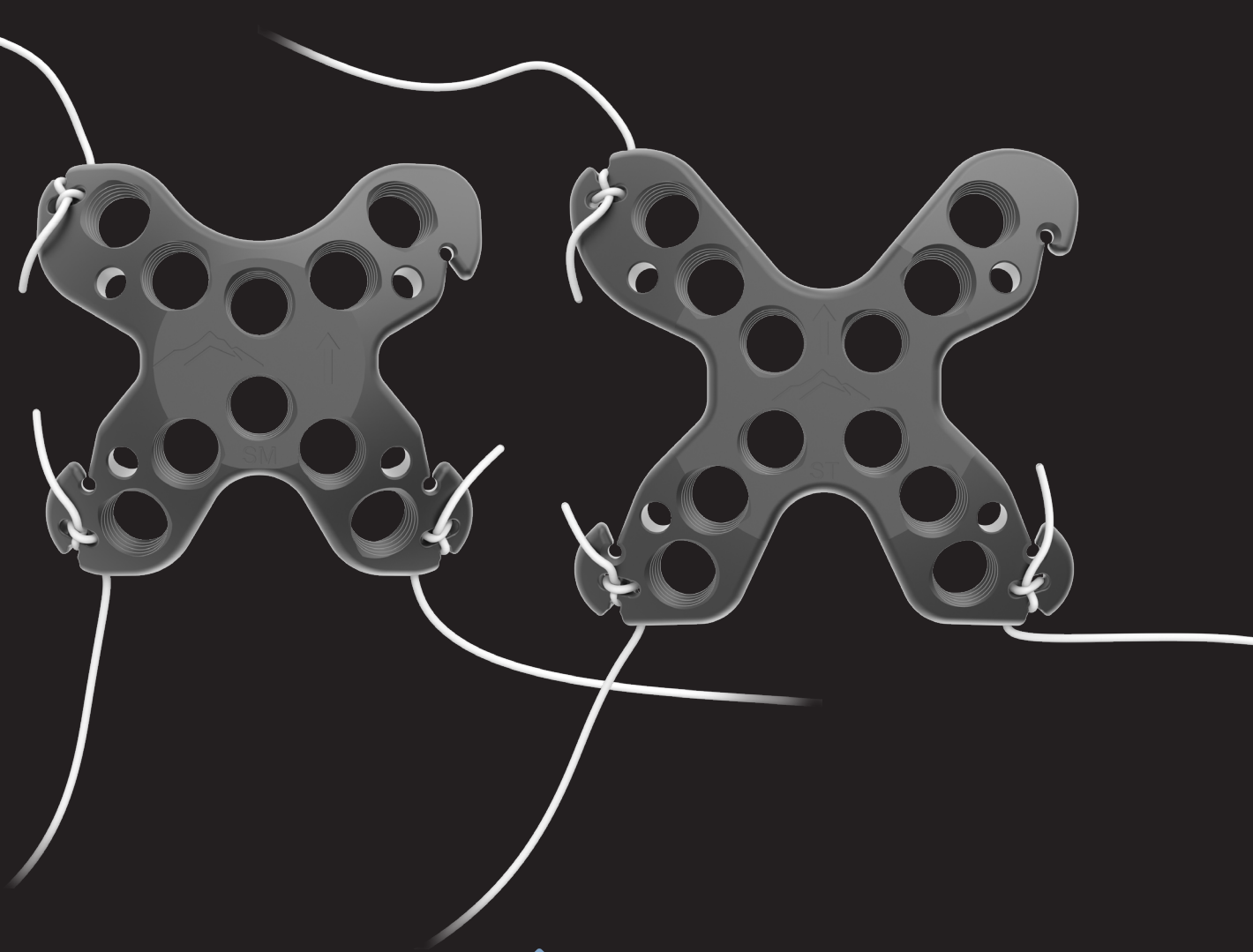


SUMMIT PATELLA PLATING SYSTEM

Surgical Technique



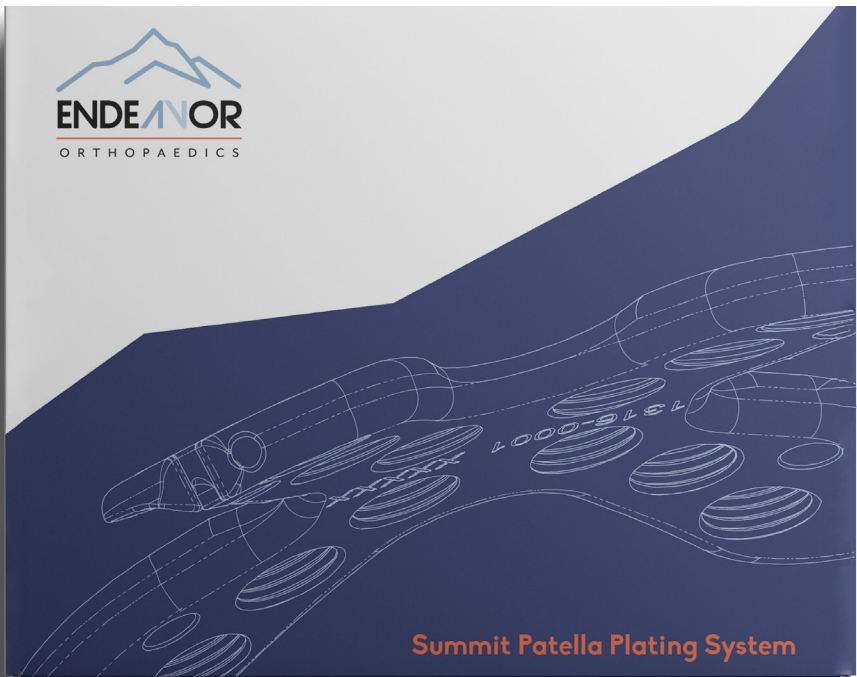
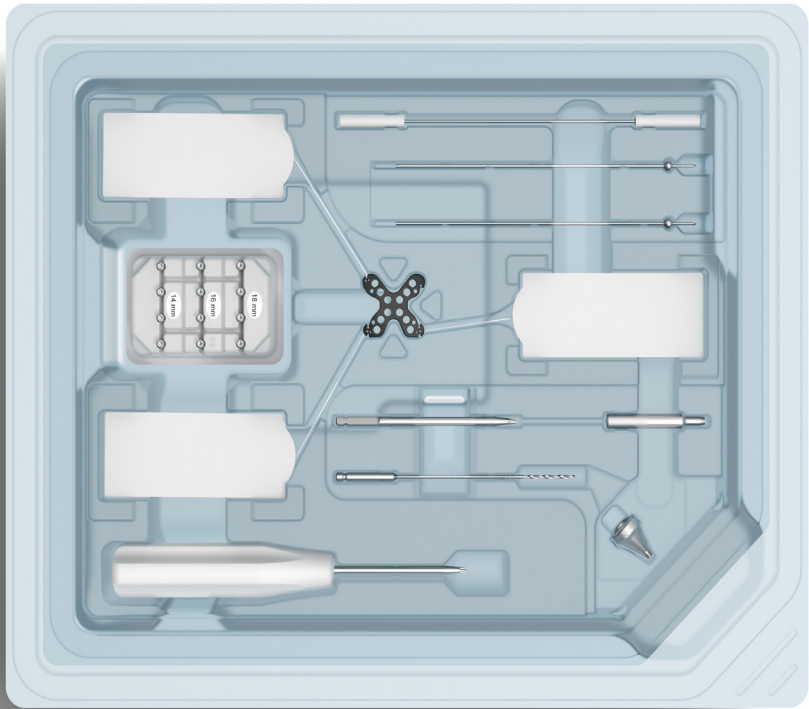


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SUMMIT PATELLA PLATING SYSTEM

INTRODUCTION:

The Summit Patella Plating System from Endeavor Orthopaedics (Endeavor Ortho) includes the implants and ancillary instruments needed for open reduction internal fixation (ORIF) of a patella fracture, packaged in a sterile procedure kit.

The Summit Patella Plating System consists of the following implants and ancillary instruments:

Small Plate Kit | #1316-3001

LOCKING SCREWS

- 12 mm #1316-003-012 (X4)
- 14 mm #1316-003-014 (X4)
- 16 mm #1316-003-016 (X4)

PATELLA PLATE

SM Plate #1316-0002

K-WIRES

#1316-4007

SUTURES W/ NEEDLES

36 mm #1316-0036 (X3)

OLIVE WIRES

#1316-4004

DRILL GUIDE

#1316-4002

T8 SCREWDRIVER SHAFT

#1316-4000

T8 SCREWDRIVER

#1316-5000

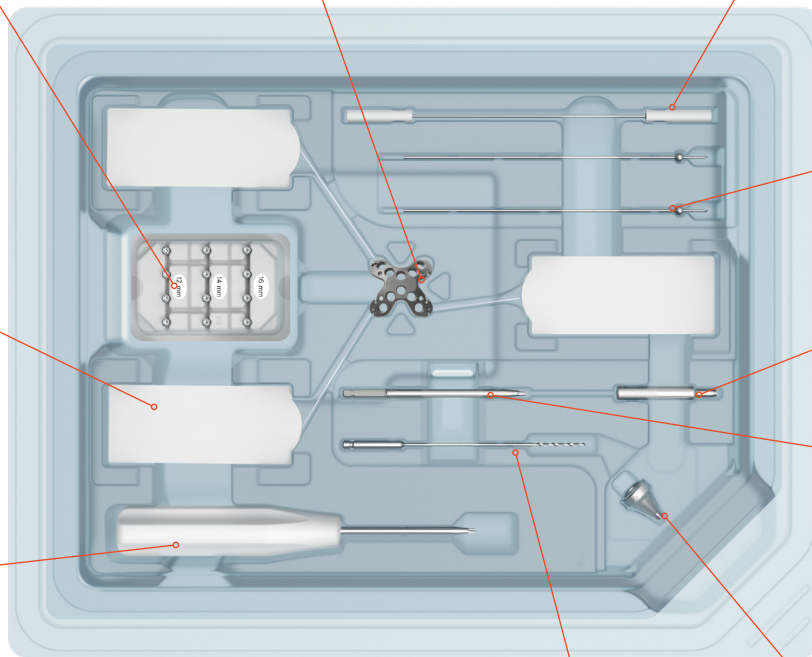


Figure 1.0

DRILL BIT

#1316-4003

VA CONE DRILL GUIDE

#1316-4005

Standard Plate Kit | #1316-3000

LOCKING SCREWS

14 mm #1316-003-014 (X4)
16 mm #1316-003-016 (X4)
18 mm #1316-003-018 (X4)

SUTURES W/ NEEDLES

36 mm #1316-0036 (X2)
48 mm #1316-0048 (X1)

T8 SCREWDRIVER
#1316-5000

PATELLA PLATE

ST Plate #1316-0001

K-WIRES

#1316-4007

OLIVE WIRES

#1316-4004

DRILL GUIDE

#1316-4002

T8 SCREWDRIVER SHAFT

#1316-4000

DRILL BIT

#1316-4003

VA CONE DRILL GUIDE

#1316-4005

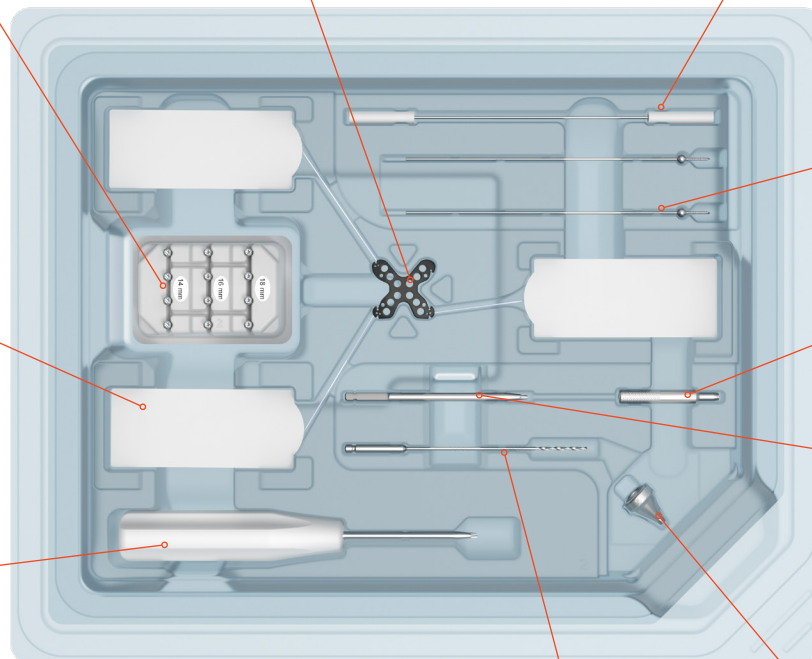


Figure 1.0

Two plate options are available for the Summit System, either the Standard Patella Plate or Small Patella Plate (Figure 1.1). The “ST” laser marking on the plate indicates the Standard Plate and the “SM” indicates the Small Plate. The Standard Plate includes 12 threaded holes for screw fixation and the Small Plate includes 10. The plates’ designs allow the surgeon to choose the location and number of screws for optimal fracture fixation. Each X-shaped plate is curved to match the contour of the dorsal surface of the patella. The arms of the X-shaped plate extend across the patella to facilitate fixation of multi-fragment fractures. Both plates include four holes, one in each arm, for placement of olive wires for provisional fixation. Additionally, three of the four plate arms have a preloaded suture that may be used along with the plate cleats to engage the quadriceps tendon and/or patella ligament for enhanced soft tissue fixation. The plates are made from titanium alloy, and finished with Type II anodization. Each sterile procedure kit (Figure 1.0) will contain one patella plate, either the Standard or Small size.

SMALL PLATE

STANDARD PLATE

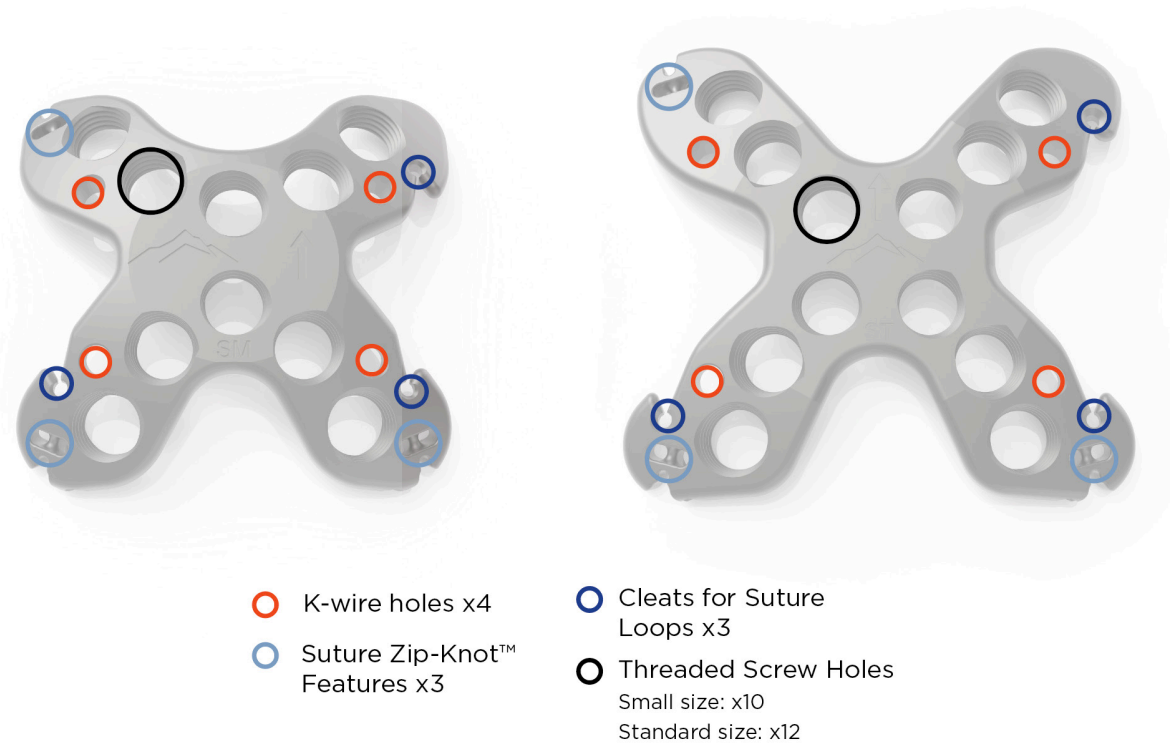


Figure 1.1

Medical surgical sutures connected to standard medical grade suture needle needles are preloaded/ attached to the plate and routed through the Zip-Knot™ feature on three of the plate arms. One of the superior arms of the plate and both inferior arms come preloaded with suture/needle. The #2 sutures are HS Fiber® type sutures. Figure 1.2 provides an image of the Summit 16.5” Ultra High Molecular Weight Polyethylene (UHMWPE) nonabsorbable suture with 0.5” eyelet and needle. The Standard Plate has the HS Fiber suture with the CTX 48mm needle attached to the superior arm and the HS Fiber suture with the CT-1 36mm needle attached to both inferior arms. The Small Plate has preloaded suture with the CT-1 36mm needle on all three arms.

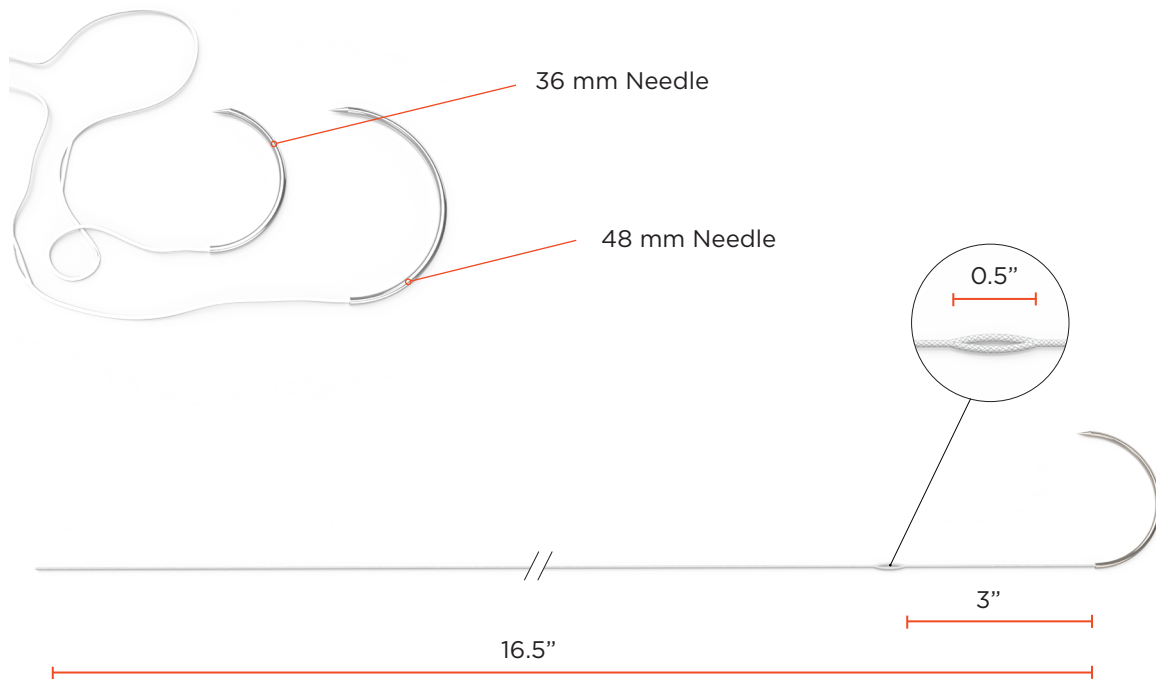


Figure 1.2

The screws provided within the Summit System are fully threaded locking screws made of cobalt chrome (Figure 1.3) The screws are 2.4mm in diameter and have a T8 Torx drive mechanism. The screws can be inserted along the axis of the hole in the plate or at a variable angle up to 15° from the axis. The cobalt chrome material of the screw allows the threads in the screw head to engage with the plate at variable angles by forming a thread path in the plate as the screw is being inserted, thus locking the screw to the plate.



Small Plate Screws - 12 mm, 14 mm, 16 mm

Standard Plate Screws - 14 mm, 16 mm, 18 mm

Figure 1.3

TIPS & TRICKS

- If the fracture is highly comminuted, it is recommended to have a small or mini fragment system available in case independent lag screws are needed. Small headless cannulated screws may also be helpful in these cases.
- Reduction forceps (tenaculums) are not included in the sterile kit and need to be provided and available for the surgical procedure.
- The non-injured patella can be utilized for measurement using fluoroscopy/x-ray. Account for magnification when estimating plate size in this manner. In the event of bi-lateral fractures, use direct measurement post-reduction.
- Intraoperative contouring/bending of the plate has not been evaluated.
- The screw caddy is removable from the tray. Stickers on either end of the screw caddy must be removed/cut to open the caddy lid.
- Never use the T8 Driver Shaft (#1316-4000) and a surgical power drill to fully insert the 2.4mm screws (#1316-0003-XXX) to the plate. All screws must be finally tightened by hand using a thumb and two finger technique with the T8 Screwdriver to avoid damage to instruments and implants.
- VA Cone Drill Guide may be difficult to remove from the tray. If so, the T8 Driver Shaft or T8 Driver may be used as a lever to release VA Cone Drill Guide from tray.
- If tension band sutures are determined not to be desired for the procedure, any and/or all sutures can be cut away using scissors or a scalpel and discarded leaving a plate and screw only construct.
- The suture eyelet can be manipulated and fully opened using forceps or needle drivers for better visualization.
- Partially flexing (30+ degrees) the knee, using a bump or similar, is important to achieve appropriate tension in the suture.
- Always pull suture slack from the cleat side to the tension side before final tensioning.
- When cutting away excess suture - always leave a 10mm tail (needle-end and pull-end).
- If securing the suture eyelet over the plate cleat is difficult, loosen the screws in that plate arm to reduce compression and then secure the eyelet to the plate cleat before re-tightening screws.
- Screw lengths correspond to the total length of the screw from head to tip.
- The suture eyelet can be manipulated and fully opened using forceps or needle drivers for better visualization. If having difficulty slipping the eyelet over the plate cleat, a freer elevator may help.

SURGICAL TECHNIQUE

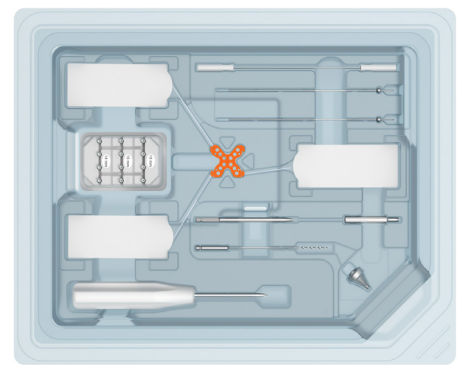
Indications for Use

The Summit Patella Plating System is indicated for use in surgical stabilization of patella fractures during open reduction internal fixation (ORIF) procedures in adults. Each system includes a plate, screws, surgical suture, and instruments that are provided in a sterile procedure kit and intended for single use.

Note: If the fracture is highly comminuted, it is recommended to have a small or mini fragment system available in case small, independent lag screws are needed.

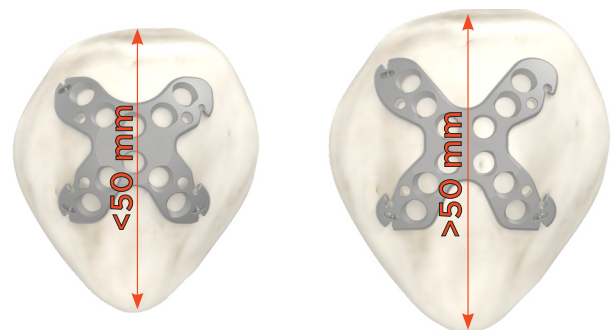
Plate Selection and Preparation

The patella plates come in two sizes (small and standard) and are not side specific (not specific to either right or left patellae). All plates are X shaped with four arms and dome shaped to match the contour of the dorsal surface of the patella. Multiple screw holes in the plate facilitate fixation of multi-fragment patella fractures. Additionally, three of the four plate arms have a pre-loaded Zip-Knot™ tensioning suture in order to engage the quadriceps tendon and/or patella ligament that are tensioned for enhanced soft tissue fixation. Preoperative templating can be done with the intact contra-lateral patella utilizing x-ray measurement, taking note to adjust for magnification. Additionally plates can be sized intraoperatively after the fracture is provisionally reduced. Plate sizes (standard or small) are determined based on intraoperative measurement of the patella (see sizing chart). The plate has 4 Kirschner wires (k-wire) holes to provisionally hold the plate to bone using olive wires prior to definitive fixation with screws.

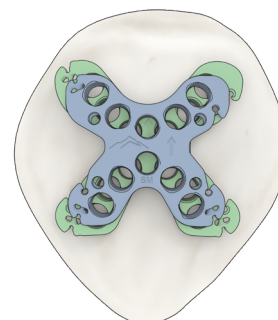


SMALL PLATE

STANDARD PLATE



Note: The non-injured patella can be utilized for measurement using fluoroscopy/x-ray. Account for magnification when estimating plate size in this manner. In the event of bi-lateral fractures, use direct measurement post-reduction.



Note: Image for size comparison of Standard and Small Plates.

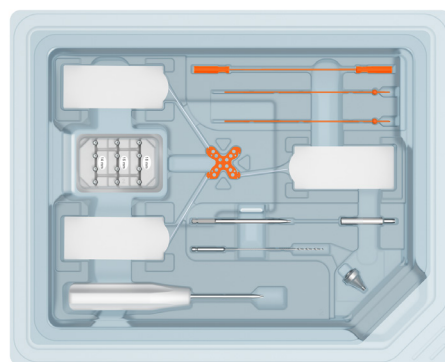
Patient Patella Size (reduced) measured pole to pole	< 50 mm	Small Plate (#1316-0002)
Patient Patella Size (reduced) measured pole to pole	> 50 mm	Standard Plate (#1316-0001)

Incision

A dorsal vertical 12-15 cm mid-line incision is carried down to the quadriceps tendon, patella and patella ligament. The superficial fascia is identified and elevated off the quad tendon, patella and patella ligament as this will be the most important layer of closure. In most cases the fractured patella is immediately evident after incision of the superficial fascia. The retinacular tears are then assessed for later repair. The fracture hematoma is evacuated from the knee joint and the knee joint is irrigated. At this point, the dorsal soft tissue is lifted off the patella from the mid-line to the medial and lateral retinaculum. This allows for visualization of dorsal fracture lines and eventual plate placement. Care needs to be taken to make sure the elevated tissue off the bone is left attached to the medial and lateral retinaculum for later repair over the plate.

Fracture Assessment/Preparation/Reduction

The fracture is now assessed for comminution. The fracture hematoma is cleaned out and the fracture fragments are reduced with dental picks, k-wire, and pointed reduction clamps for provisional reduction. Once all fragments are reduced down to a single fracture line, the two fragments are then reduced with direct manipulation and use of one/two point to point reduction clamps (not provided in Summit System procedure kit). These clamps are placed from the superior pole to the inferior pole.



Supplemental k-wires can be placed to hold the reduction with the prior placed clamps. The joint reduction is then inspected directly through the retinacular tears and if necessary via a lateral peri-patella arthrotomy to evert the patella and evaluate the joint reduction.

For comminuted fractures, insertion of independent lag screws (if necessary) should be done at this point. Provisional k-wires may be removed but reduction clamps should remain in place.

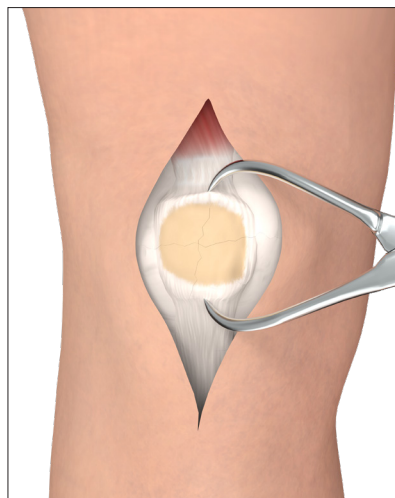
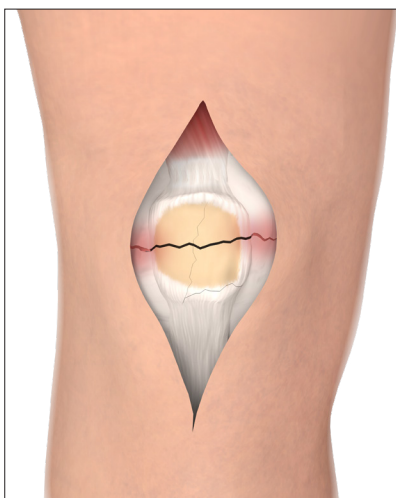
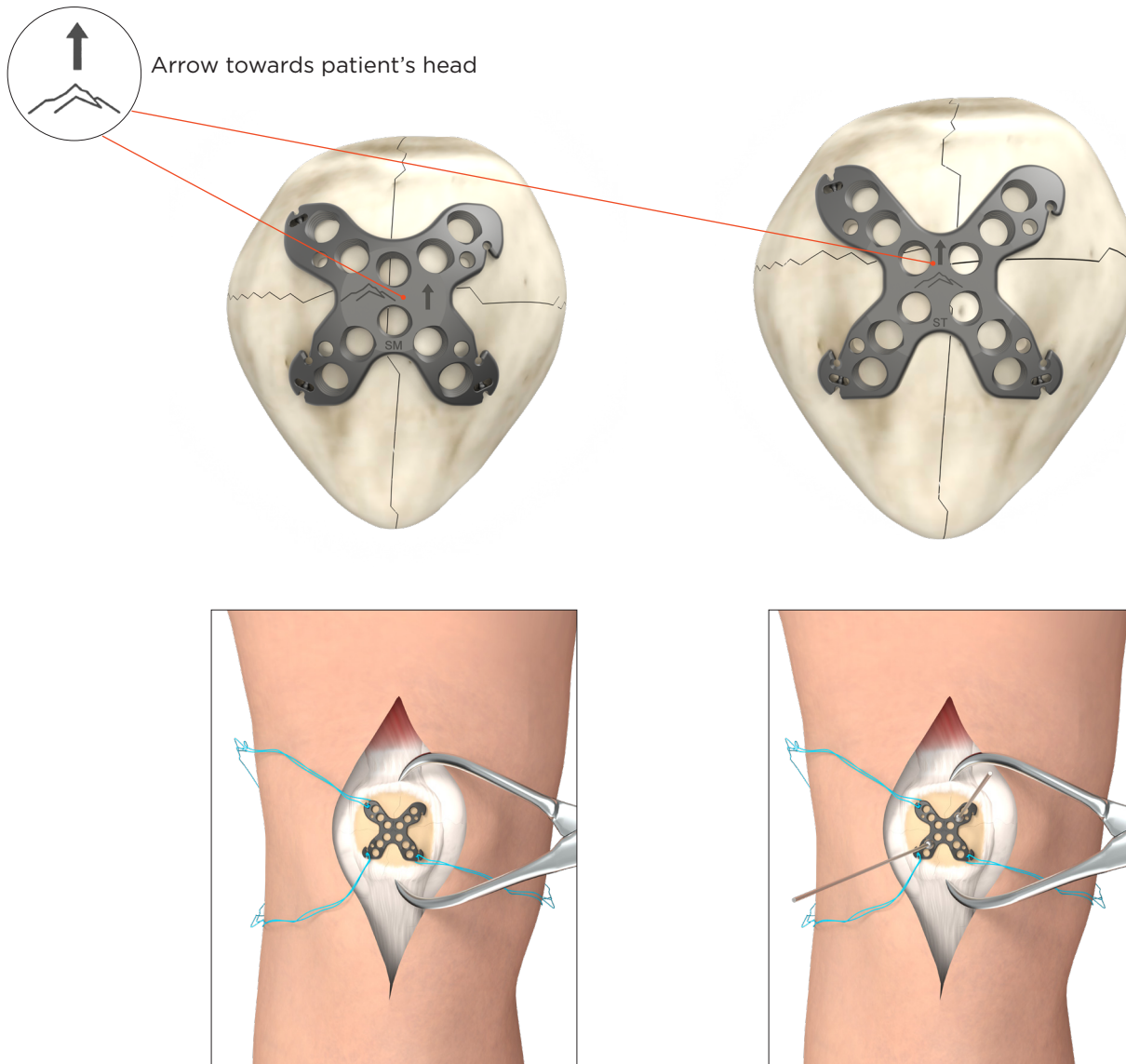


Plate Placement

The appropriate size plate is then placed over the fracture on the dorsal surface of the patella allowing for the superior arms to be above the fracture and the inferior arms to be below the fracture. The arrow etched on the plate should point towards the patient's head. The plate is then provisionally held to the dorsal surface on both sides of the fracture with olive wires. It's recommended to place olive wires in a more central hole on each side of the fracture. C-arm imaging can be used to confirm adequate size of the plate and good position on the AP and lateral images.

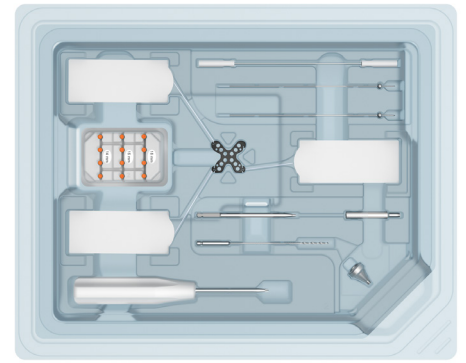
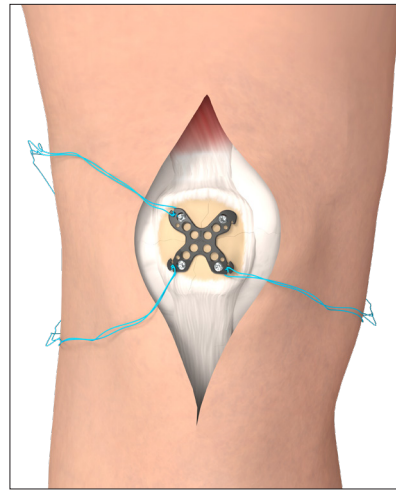
Note: *Intraoperative contouring/bending of the plate has not been evaluated.*



Disclaimer: *Sutures appear blue for visualization but are standard white in kit.*

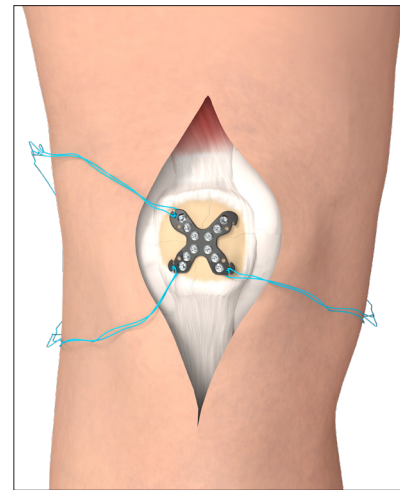
Screw Placement

A minimum of one to two screws are placed in each arm of the plate. Care should be taken to prevent screw penetration into the joint. Polyaxial locking screws can be used to capture fracture fragments if desired. The preset locking screw trajectories angle back toward the mid-line of the patella to target the thickest and densest bone and of the patella (central ridge).



Based on the fracture pattern, screws can continue to be placed in the plate holes until the fracture is determined to be stable. Reduction should then be verified by direct visualization, intraoperative X-ray, and tactile palpation.

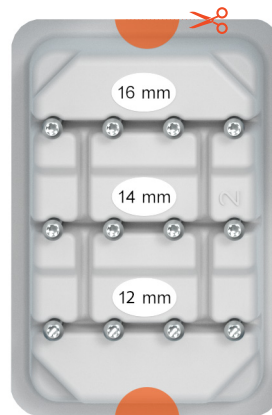
The final construct should have a minimum of three screws above and three screws below the main fracture line. Screw placement and placement order should be determined by the fracture pattern and surgeon preference.



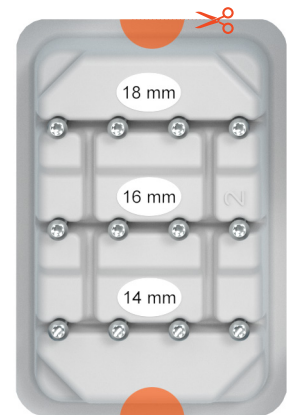
Screw Insertion

Note: The screw caddy is removable from the tray. Stickers on either end of the screw caddy must be removed/cut to open the caddy lid.

Note: Screw lengths correspond to the total length of the screw from head to tip



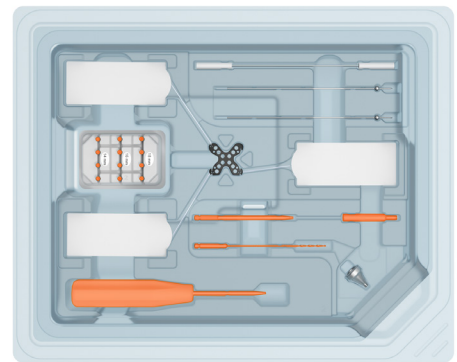
SMALL PLATE SCREW CADDY



STANDARD PLATE SCREW CADDY

On-Axis Screws

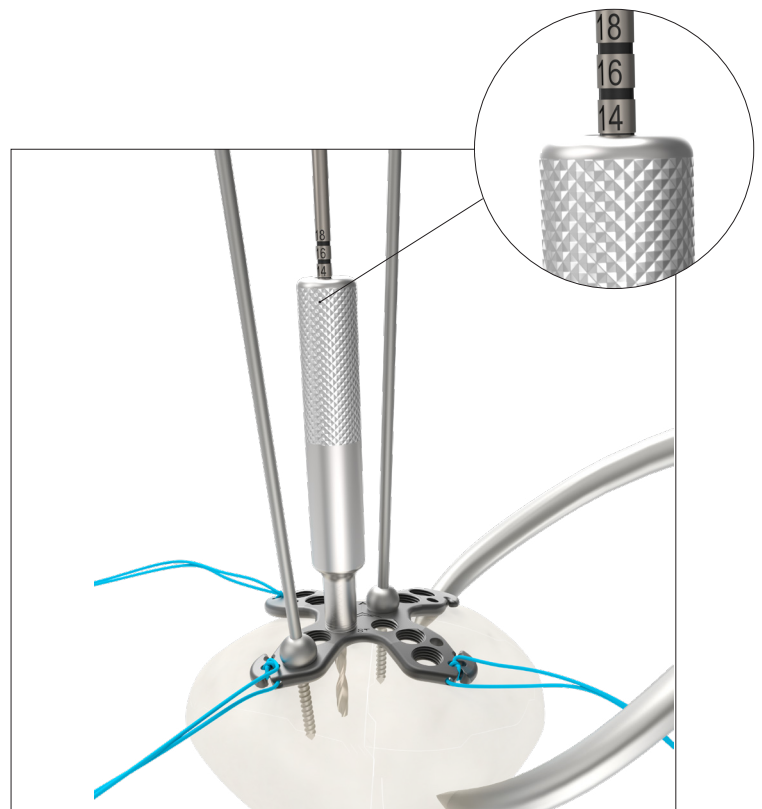
Utilize the 1.8mm Calibrated Drill Bit (#1316-4003) and the on-axis Locking Drill Guide (#1316-4002). Screw the on-axis drill guide into the desired hole. Using the 1.8mm Calibrated Drill Bit, drill through the drill guide cannula and into the patella bone uni-cortically to the desired depth (being careful not to penetrate the joint space). Confirm the screw size utilizing the calibrated proximal measurement indicator on the drill bit, and select the appropriate screw size (12mm, 14mm, 16mm – small plate) or (14mm, 16mm, 18mm – standard plate). If the measurement is between sizes, it's recommended to choose the smaller of the two lengths.



Utilizing either the T8 Driver Shaft with AO quick connect (#1316-4000) and a surgical power drill or the T8 Screwdriver (#1316-5000) by hand, insert the screws into the plate.

IMPORTANT - Never use the T8 Driver Shaft (#1316-4000) and a surgical power drill to fully insert the 2.4mm screws (#1316-0003-XXX) to the plate. All screws must be finally tightened by hand using a thumb and two finger technique with the T8 Screwdriver to avoid damage to instruments and implants.

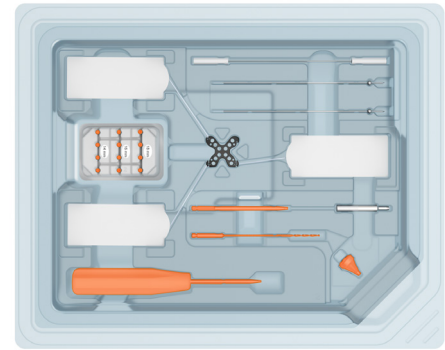
Before the screw head has started to engage the plate, utilize the T8 Screwdriver (#1316-5000) with a thumb and two finger technique to final tighten the screw to the plate. Screws should be flush with plate when possible.



Off-Axis Screws

Utilize the 1.8mm Calibrated Drill Bit (#1316-4003) and the off-axis/conical VA Cone Drill Guide (#1316-4005). Screw the off-axis VA Drill Guide into the desired hole. Using the 1.8mm Calibrated Drill Bit, drill through the VA Cone Drill Guide cannula and into the patella bone uni-cortically to the desired depth (being careful not to penetrate the joint space). Confirm the screw size utilizing the distal calibrated measurement indicator on the drill bit, and select the appropriate screw size (12mm, 14mm, 16mm – small plate) or (14mm, 16mm, 18mm – standard plate). If the measurement is between sizes, it's recommended to choose the smaller of the two lengths.

Note: VA Cone Drill Guide may be difficult to remove from tray. If so, the T8 Driver Shaft or T8 Driver may be used to release VA Cone Drill Guide from tray.



Utilizing either the T8 Driver Shaft with AO quick connect (#1316-4000) and a surgical power drill or the T8 Screwdriver (#1316-5000) by hand, insert the screws into the plate.

IMPORTANT – Never use the T8 Driver Shaft (#1316-4007) and a surgical power drill to fully insert the 2.4mm screws (1316-0003-XXX) to the plate. All screws must be finally tightened by hand using a thumb and two finger technique with the T8 Screwdriver to avoid damage to instruments and implants.

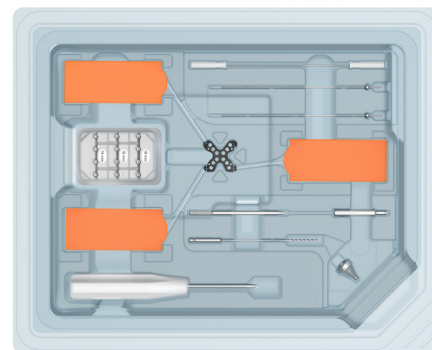
Before the screw head has started to engage the plate, utilize the T8 Screwdriver (#1316-5000) using the thumb and two finger technique to final tighten the screw to the plate. Screws should be flush with plate when possible.



Suture Technique (Optional)

Note: If tension band sutures are determined not to be needed for the procedure, they can be cut away using surgical scissors or a scalpel blade and discarded.

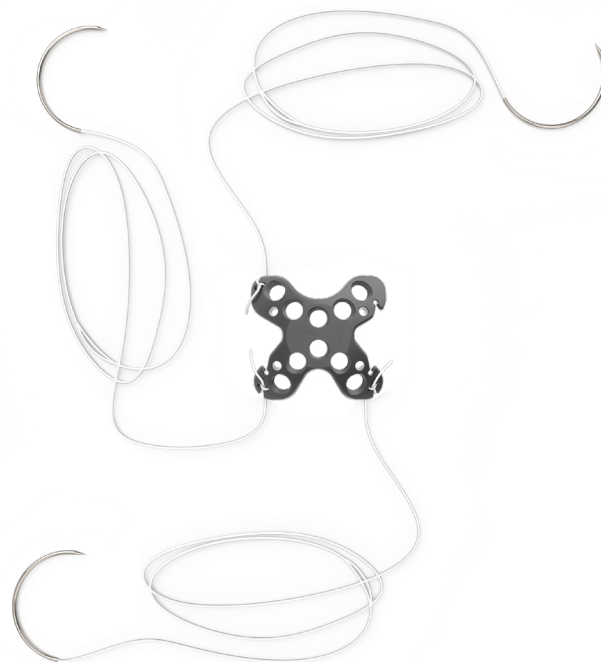
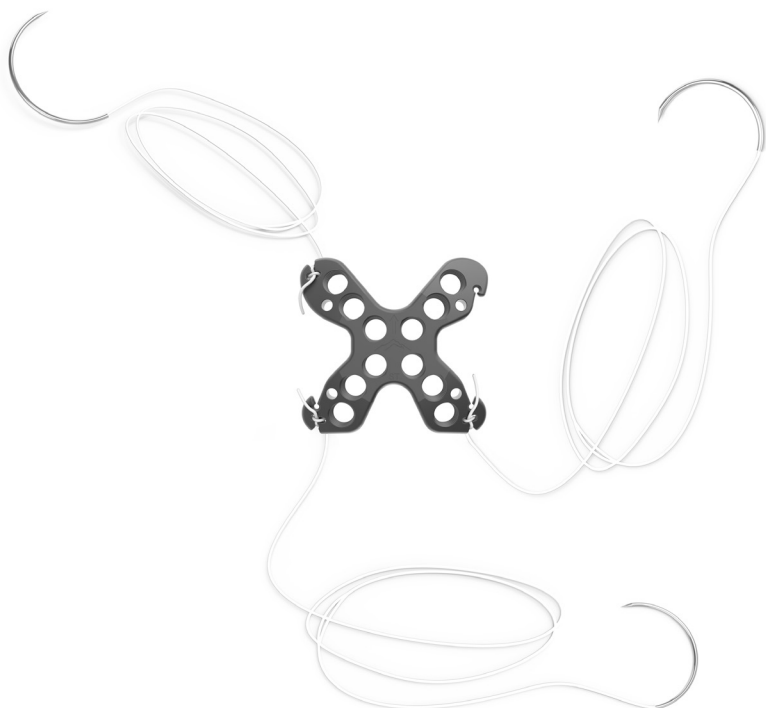
After final screw placement, the pre-loaded #2 Ultra High Molecular Weight Polyethylene (UHMWPE) with 0.5" eyelet and needle can be used to engage the quadriceps tendon superiorly and the patella ligament inferiorly.



Suture and needle configuration by plate size

Small Plate:

Three 16.5 inch UHMWPE nonabsorbable #2 sutures with 0.5 inch eyelet and tapered needles. In all three arms, each suture (superior left, inferior left and right) has a CT-1 36mm needle attached.



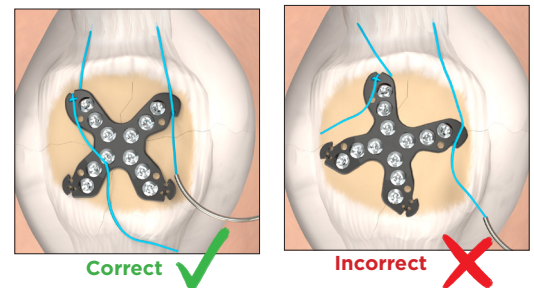
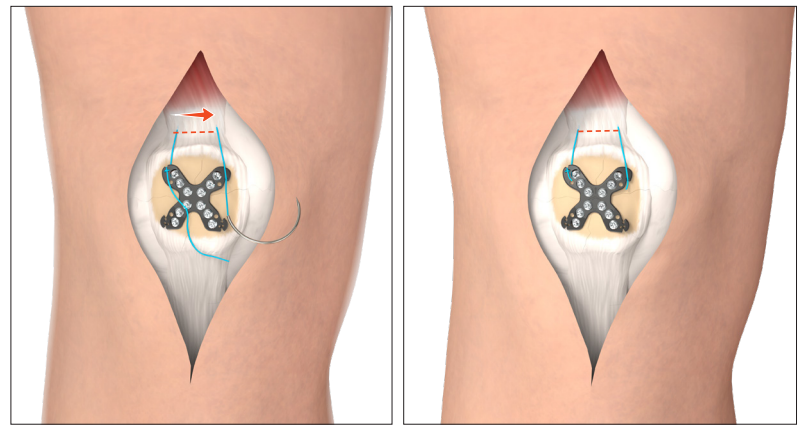
Standard Plate:

Three 16.5 inch UHMWPE nonabsorbable #2 sutures with 0.5 inch eyelet and tapered needles. The superior left arm has a single suture with a CTX 48mm needle attached. In the inferior arms, each suture has a CT-1 36mm needle attached.

Superior Tension Band Suture Placement

In the superior arm of the plate, moving clockwise, the needle is used to pass the suture through a large portion of the quadriceps tendon, using a **single pass**, as close as possible to the superior pole of the patella and then brought out near the other superior arm of the plate. To attach the lead end of the suture to the plate, the suture eyelet behind the needle is slid over the suture cleat securely. Forceps may be needed to open the eyelet and position onto the cleat. Ensure the eyelet is fully seated in the cleat recess prior to final tensioning. Seating of the eyelet can be felt, or often heard, in the plate. After the suture eyelet is secured to the plate, cut the needle off the suture leaving at least a 10 mm tail from the eyelet.

Note: The needle entry point into soft tissue should be in-line with the channel where the suture exits the plate and not at a steep angle.

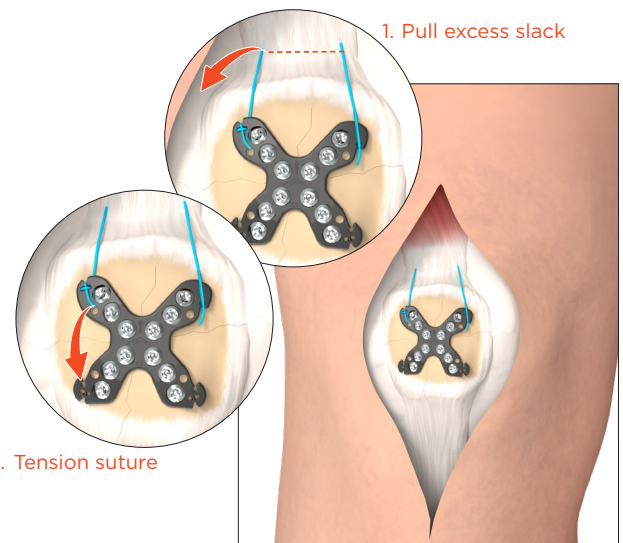


Tensioning the Suture

To tension the suture, begin by pulling excess slack through the single pass suture tunnel of the quadriceps tendon, from the upper right arm of the plate toward the upper left arm of the plate. Thus, reducing the slack running through the tissues and the cleat attachment. Pull the tail of the suture on the upper left arm (preloaded side, non-cleat side) of the plate distally toward the lower left arm of the plate until desired tension is achieved. This is usually when the surgeon starts to see the quad tendon move toward the superior pole of the patella. Care should be taken to not over-tighten the suture as it is only there to offload forces from the quad tendon on the superior pole of the patella. Partially flexing (30+ degrees) the knee, using a bump or similar, is important to achieve appropriate tension. The surgeon may see slack in the suture with the knee in full extension. This will resolve with knee flexion and quadriceps contraction. The knee should be placed through full range of motion (0-90 degrees) to determine if additional tension is needed. Once the desired tension has been achieved, the excess suture should be cut away leaving at least a 10mm tail.

Note: The needle entry point into soft tissue should be in-line with the channel where the suture exits the plate and not at a steep angle.

Optional: To further secure the Zip-Knot™, a safety knot may be introduced on top of the Zip-Knot™ on the pull side of the suture.



Inferior Tension Band Suture Placement

There are preloaded suture Zip-Knots™ in each inferior plate arms (two total) to allow for an optional Krackow suture technique or single suture tensioning (as in the superior portion of the plate). If a Krackow suture technique is not desired, either or both of the two sutures can be removed from the plate with scissors and discarded.

Utilizing Inferior Sutures for a Krackow Suturing Technique

Starting with either inferior suture, perform a Krackow suture technique moving toward the tibial tuberosity. Once the desired Krackow stitch is complete, bring the needle to the center of the ligament. Perform the same Krackow stitch technique with the remaining inferior suture, again bringing the needle to the center of the ligament. Cut the needles off leaving enough suture on each to tie the two suture tails together securely in the middle of the inferior patella ligament.

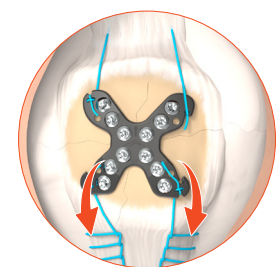
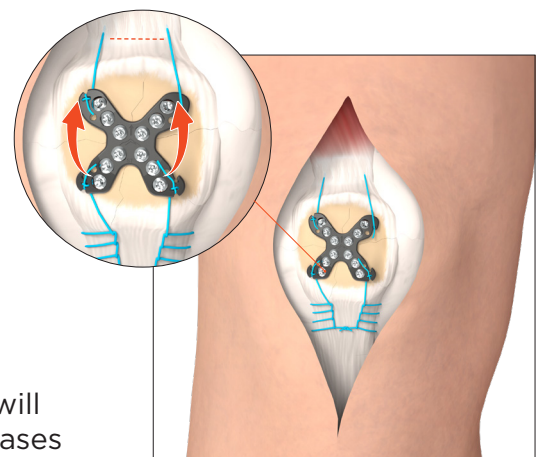
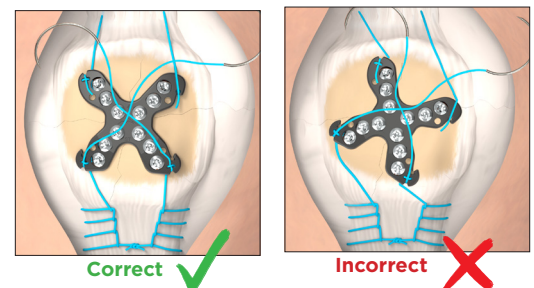
Note: The needle entry point into soft tissue should be in-line with the channel where the suture exits the plate and not at a steep angle.

Tensioning the Krackow Sutures

To tension the suture, begin by pulling excess slack in the Krackow stitch proximally towards the plate. Then pull the tails of the sutures on the lower left and right arms of the plate proximally toward the upper left and right arms of the plate respectively. The sutures should be tensioned going back and forth sequentially between the left and right arms until desired tension is achieved. This is usually when the surgeon starts to see the patella tendon move toward the inferior pole of the patella. Care should be taken to not over-tighten the suture as it is only there to offload forces from the patella tendon on the inferior pole of the patella. Partially flexing (30+ degrees) the knee, using a bump or similar, is important to achieve appropriate tension. The surgeon may see slack in the suture with the knee in full extension. This will resolve with knee flexion and quadriceps contraction. In many cases utilizing the Krackow suture technique, additional tensioning may not be required. The knee should be placed through full range of motion (0-90 degrees) to determine if additional tension is needed. Once the desired tension has been achieved, the excess suture should be cut away leaving at least a 10mm tail.

Note: Should the suture become over-tensioned, release tension by pulling the suture tail away from the plate arm in the opposite direction of tensioning. This loosens the Zip-Knot™ and allows suture tension adjustment.

Optional: To further secure the Zip-Knot™, a safety knot may be introduced on top of the Zip-Knot™ on the pull side of the suture.

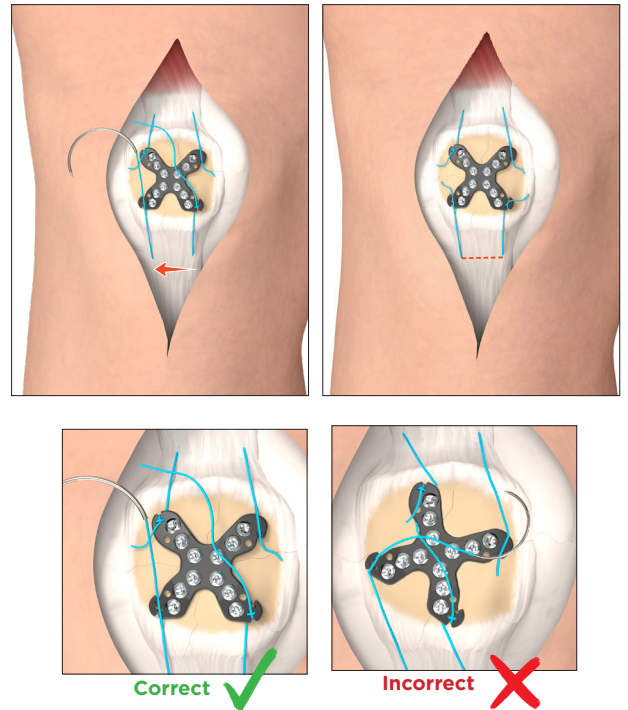


To loosen tension

Standard (Non-Krackow) Tension Band Suture Placement

After removal of one of the inferior Zip-Knot™ sutures the remaining suture can be used to engage the patella ligament inferiorly (either suture may be utilized). The needle is used to pass the suture through a large portion of the patella ligament as close as possible, using a single pass, to the inferior pole of the patella and then brought out near the other inferior arm of the plate. To attach the lead end of the suture to the plate, the suture eyelet behind the needle is slid over the suture cleat securely. Forceps may be needed to open the eyelet and position onto the cleat. Ensure the eyelet is fully seated in the cleat recess prior to final tensioning. After the suture is secured, cut the needle off the suture close to the needle leaving at least a 10 mm tail.

Note: The needle entry point into soft tissue should be in-line with the channel where the suture exits the plate and not at a steep angle.

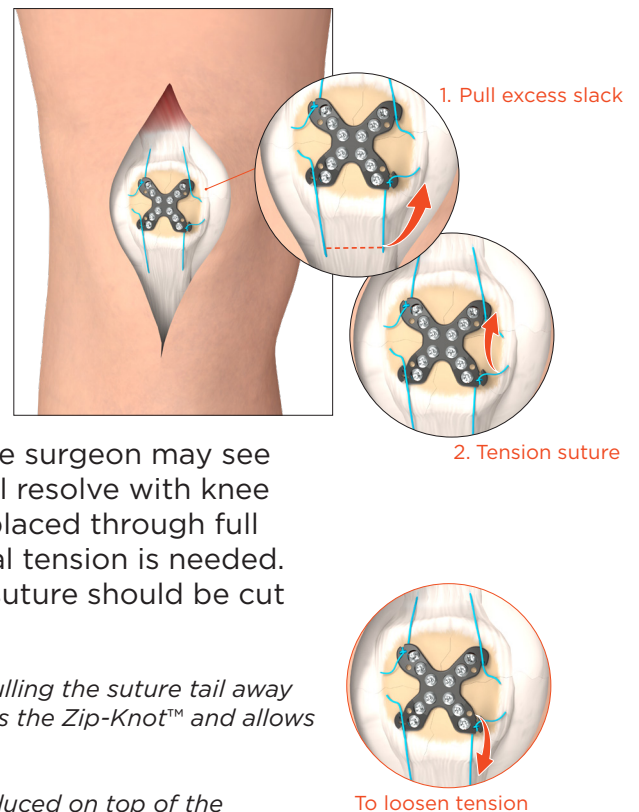


Tensioning the Suture

To tension the suture, begin by pulling excess slack through the single pass suture tunnel “in” the patella ligament towards the inferior arm of the pre-loaded side. Thus, reducing the excess slack running through the tissues. Then, pull the tail of the suture on the preloaded side (non-cleat side) toward the respective upper left or right arm of the plate until desired tension is achieved. This is usually when the surgeon starts to see the patella tendon move toward the inferior pole of the patella. Care should be taken to not over-tighten the suture as it is only there to offload forces from the patella ligament on the inferior pole of the patella. Partially flexing (30+ degrees) the knee, using a bump or similar, is important to achieve appropriate tension. The surgeon may see slack in the suture with the knee in full extension. This will resolve with knee flexion and quadriceps contraction. The knee should be placed through full range of motion (0-90 degrees) to determine if additional tension is needed. Once the desired tension has been achieved, the excess suture should be cut away leaving at least a 10mm tail.

Note: Should the suture become over-tensioned, release tension by pulling the suture tail away from the plate arm in the opposite direction of tensioning. This loosens the Zip-Knot™ and allows suture tension adjustment.

Optional: To further secure the Zip-Knot™, a safety knot may be introduced on top of the Zip-Knot™ on the pull side of the suture.



Closure of Soft Tissues

Irrigate the joint, check for proper reduction, and range the knee joint 0-90 degrees to assess stability of the fixation. The dorsal patella soft tissue should now be re-approximated over the plate as best as possible. It will usually not cover the entire plate. The superficial fascia is then closed with 0 polydioxanone suture. All attempts should be made for the superficial fascia to cover the plate. The subcutaneous tissue is then closed followed by the skin. A knee immobilizer may be placed based on stability of repair.

Implant Removal

Reopen the old wound. Clear the soft tissue ingrowth from the screw head. Remove the screws with a T8 Screwdriver. Cut the suture from each plate arm. Lift the plate off the bone. Remove the suture remnant from the quadriceps tendon and patella ligament. Irrigate the tissues and close in layers.

PRODUCT INFORMATION

Part Name	Part Number
Standard Plate Kit	#1316-3000
Small Plate Kit	#1316-3001
Individual Parts:	
Patella Plate - Standard	#1316-0001
Patella Plate - Small	#1316-0002
2.4 mm Locking Screws	#1316-0003-XXX
Packaged Sutures with Needles	#1316-0036 (CT-1 36 mm needle)
	#1316-0048 (CTX 48 mm needle)
K-wire 1.6 mm	#1316-4007
Olive Wire	#1316-4004
Drill 1.8 mm	#1316-4003
Drill Guide	#1316-4002
VA Cone Drill Guide	#1316-4005
T8 Driver Shaft	#1316-4000
T8 Driver	#1316-5000

IMPLANTS

Plates #1316-0002, #1316-0001

Two plate options are available for the Summit System, either the Standard Patella Plate or the Small Patella Plate. The “ST” laser marking on the plate indicates the Standard Plate and the “SM” indicates the Small Plate. The Standard Plate includes 12 threaded holes for screw fixation and the Small Plate includes 10. The plate design allows the surgeon to choose the location and number of screws for optimal fracture fixation. Each X-shaped plate is curved to match the contour of the dorsal surface of the patella. The arms of the X-shaped plate extend across the patella to facilitate fixation of multi-fragment fractures. Both plates include four holes, one in each arm, for placement of olive wires for provisional fixation. Additionally, three of the four plate arms have a preloaded suture that may be used along with the plate cleats to engage the quadriceps tendon and/or patella ligament for enhanced soft tissue fixation. The introduction subsection describes details associated with the plate features, such as the preloaded suture and cleats. The plates are made from titanium alloy and finished with Type II anodization. Each sterile procedure kit will contain one patella plate, either the Standard or Small size.



Small Plate

Length: 26 mm
Width: 25 mm
Thickness: 1.4 mm

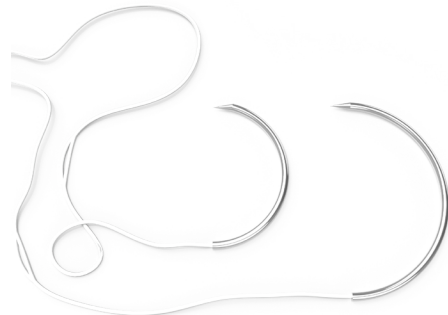


Standard Plate

Length: 30.5 mm
Width: 29.1 mm
Thickness: 1.25 mm

Sutures #1316-0036 , #1316-0048

Medical surgical #2 sutures connected to standard medical grade suture needles are preloaded/ attached to the plate, routed through the Zip-Knots™ feature on three of the plate arms. One of the superior arms of the plate and both inferior arms come preloaded with 16.5” Ultra High Molecular Weight Polyethylene (UHMWPE) nonabsorbable sutures with a 0.5” eyelet and needle. The Summit System is available with two tapered stainless steel needle options, either CT-1 36mm or CTX 48mm. The Standard Plate has the HS Fiber suture with the CTX 48mm needle attached to the superior arm and the HS Fiber suture with the CT-1 36mm needle attached to both inferior arms. The Small Plate has preloaded suture with the CT-1 36mm needle on all three arms.



Screws #1316-0003-012, #1316-0003-014, #1316-0003-016, #1316-0003-018

The screws provided within the Summit System are fully threaded locking screws made of cobalt chrome. An image of the Summit System screw is given below. The screws are 2.4mm diameter screws with lengths ranging from 12 mm to 18mm. Each sterile procedure kit will contain a set of screws (see list below). The set of screws provided will include four screws of the same length for each of the screw lengths offered in the kit.

Small Plate - 4 each per kit - 12mm, 14mm, 16mm
Standard Plate - 4 each per kit - 14mm, 16mm, 18mm



IMPORTANT - Never use the T8 Driver Shaft (#1316-4007) and a surgical power drill to fully insert the 2.4mm screws (1316-0003-XXX) to the plate. All screws must be finally tightened by hand using a thumb and two finger technique with the T8 Screwdriver to avoid damage to instruments and implants.

INSTRUMENTS

T8 Driver Shaft #1316-4000

The T8 Driver Shaft provided with the Summit procedure kit is designed with an AO Quick Connect for attachment to a medical power drill. The T8 Drive Shaft allows screws to be initially driven into the bone under power. The T8 Driver Shaft is manufactured from 17-4 PH stainless steel.

IMPORTANT - Never use the T8 Driver Shaft (#1316-4007) and a surgical power drill to fully insert the 2.4mm screws (1316-0003-XXX) to the plate. All screws must be finally tightened by hand using a thumb and two finger technique with the T8 Screwdriver to avoid damage to instruments and implants.



T8 Driver #1316-5000

The T8 Driver provided with the Summit procedure kit is used to drive the screws in the bone by hand, manually, not under power. The Driver handle is made of plastic and the shaft is 17-4 PH stainless steel. Final tightening of the screws should always utilize a thumb and two-finger technique.



Drill Bit #1316-4003

A 1.8mm diameter drill bit with a standard AO Quick Connect is provided with the Summit System. The drill bit is made of 17-4 PH stainless steel. The drill bit includes two groups of laser marked numbers for screw length determination when used in conjunction with one of the drill guides within the system.



Drill Guides #1316-4002 and #1316-4005

Two drill guides are provided within the Summit System procedure kit. The Locking Drill guide threads into the plate to allow drilling in-line with the central axis of the threaded holes in the plate. The conical-shaped drill guide, the Variable Angle (VA) Cone Drill Guide, threads into the plate to allow drilling at a variable angle to the axis of the threaded hole. Both guides are made of 17-4 PH stainless steel.



Olive Wires #1316-4004

Olive wires are provided within the Patella System. The olive wires are 316LVM stainless steel. Olive wires are inserted in the holes in the plate, one on each plate arm, to hold the plate to the bone to provide provisional fixation while screws are inserted through the plate for final fixation to the bone.



K-wires #1316-4007

The K-wires within the system are 1.6mm in diameter and made of 316LVM stainless steel. The K-wires are used to provide provisional fixation of the bone fragments during implantation of the plate.





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