



Zimmer® MIS™
Periarticular
5.5mm Proximal
Tibial Locking Plate

Surgical Technique



The Science of the Landscape

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MIS Surgical Technique

Required Instrumentation

The following sets may be required for application of the Periarticular Proximal Tibial Locking Plates:

- Small Fragment Set
- Basic Forcep Set
- 5.5mm/4.5mm Locking Screw and Instrument Set
- 5.5mm/4.5mm MIS Instrument Set
- Periarticular Proximal Tibial 5.5mm Locking Plate Set

Preoperative Preparation

After assessing the fracture radiographically and preparing a preoperative plan, place the patient in the supine position on a radiolucent table. Be sure that the fluoroscope can be positioned to visualize the proximal tibia in both the lateral and anterior/posterior (A/P) views.

Pre-operative planning using A/P and M/L templating will allow assessment of the ability of the lateral plate to capture and adequately stabilize any medial fragments. If adequate reduction or fixation is not feasible, a medial buttress plate should also be considered.

Fracture Reduction

It is imperative that accurate reduction of the fracture be obtained prior to and maintained during application of the proximal tibial locking plate.

An external fixator or distractor can serve as preliminary fixation. This will make operative reduction easier, and the device can be used as a tool intraoperatively.

Before locking screws are placed in any fragment, length, rotation, varus-valgus and recurvatum correction should be achieved.

The Plate Reduction Instrument is designed to aid in minor varus-valgus and translation corrections prior to screw placement.

Reduce the intra-articular fragments using linear bone clamps or Kirschner wires to temporarily hold the reduction.

Use lag screws to secure the intra-articular fragments. To help avoid inserting the lag screws where they will interfere with the plate placement, hold the plate on the bone in its approximate position. Then insert the lag screws as needed.

Extra-articular reduction is accomplished by indirect means (e.g. external fixator, distractor, traction, joysticks, bumps, etc.). The metaphyseal/diaphyseal component of the fracture can be aligned by manual traction, a knee-spanning fixator, or a distractor.

Surgical Approach

The patient is positioned supine on a radiolucent operating table.

A straight lateral parapatellar incision is made. This incision can be extended proximally and/or distally as more exposure is required. The dissection should go straight down to the bone by detaching the lateral muscle origins and splitting the fibers of the iliotibial tract. The knee joint is then opened below the lateral meniscus in order to get a good view of the articular surface. Do not dissect across the tibial tuberosity — unless absolutely necessary — the soft tissue coverage on the medial side is very delicate. Take care not to place incisions over the proposed sites of implants, or where there is risk of devitalizing sensitive structures.

When treating fractures with a bicondylar component, an additional posteromedial incision is recommended to ensure anatomic reduction of the medial cortex. Use of linear bone clamps greatly facilitates the reduction of this type of fracture.

MIS Jig Assembly

Assemble the Metaphyseal portion of the MIS Jig (Left or Right) and the Shaft portion of the MIS Jig (Left or Right) (Figs. 1a & 1b).

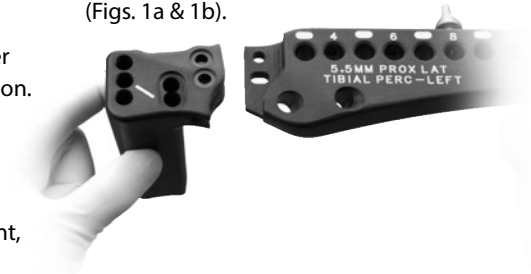


Fig. 1a



Fig. 1b

Insert the two Hinge Bolts, and finger tighten (Fig. 2).

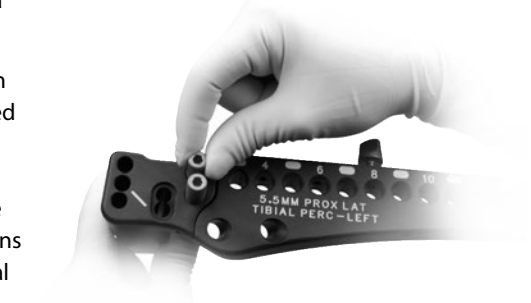


Fig. 2

Attach the Jig to the appropriate plate by threading two 1.6mm Percutaneous Cannulas into Metaphyseal plate holes — one in the MOST PROXIMAL CENTRAL plate hole, and one in the CENTRAL plate hole (Fig. 3). Finger tighten the Cannula Nuts to secure the plate to the Jig (Fig. 4).



Fig. 3



Fig. 4

Insert one 5.5mm/4.5mm Perc Sleeve into the MOST DISTAL plate shaft locking hole. Insert a 3.2mm Strut/Shaft Cannula into the sleeve and thread it into the plate (Fig. 5).

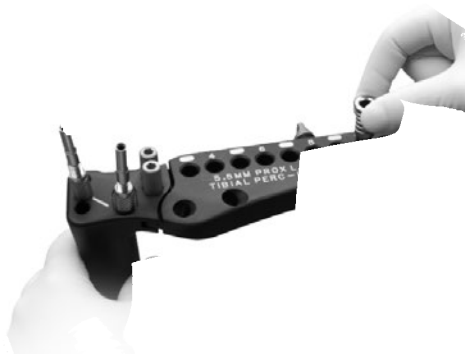


Fig. 5

Finger tighten the Cannula Nut to secure the plate to the Jig (Fig. 6). If necessary, adjust the position of the SHAFT portion of the JIG by loosening the Hinge Bolts slightly until the 3.2mm Strut/Shaft Cannula threads easily into the MOST DISTAL plate shaft hole. Re-tighten the Hinge Bolts by hand, and then use the PERC ALLEN WRENCH for final tightening.

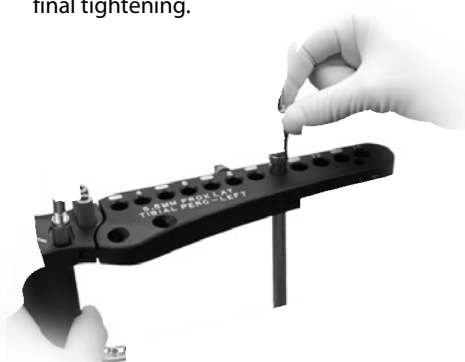


Fig. 6



Fig. 7

Loosen the Perc Cannula Nut and remove the 3.2mm Strut/Shaft Cannula and Sleeve from the MOST DISTAL plate shaft hole.

Plate Positioning

Slide the plate underneath the anterior compartment muscles and periosteum. Keep the distal end of the plate in close contact with the bone during insertion. Place the proximal end of the plate onto the lateral plateau.

Use anatomic landmarks and fluoroscopic images as guides. Because the tibial shaft may not be aligned with the proximal fragment,

the plate head should be used to determine the appropriate placement of the plate. The plate head should conform to the shape of the tibial plateau. This will determine the alignment of the shaft.

While holding the plate in position, make sure that the Cannula in the CENTRAL PROXIMAL plate hole is parallel to the medial lateral axis of the tibial femoral joint. Then using the Guide Wire Inserter, insert a 3.2mm Drill Tip Guide Wire through the 3.2mm Metaphyseal Cannula until the tip engages the cortical wall (Fig. 7).

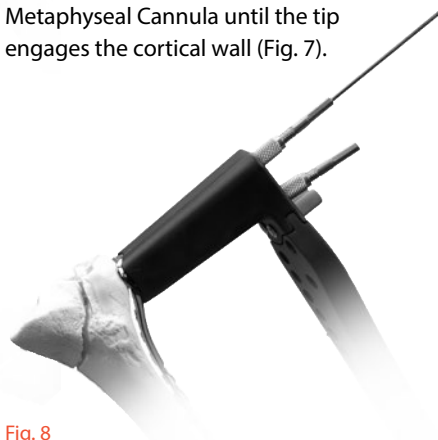


Fig. 8

Note: The flat on the Guide Wire aligns with the arrow on the Guide Wire Inserter.

Be sure that the wire remains parallel to both axes. Check plate placement visually and fluoroscopically to ensure that it is positioned correctly on the metaphysis of the bone.

When the first wire is satisfactory, and depending upon the fracture fragments and reduction requirements, adjust the plate position, if necessary. Observe the placement of the plate head and use the fluoroscope to confirm that it is in the desired location on both the AP and lateral images.

Make a small incision at the location of the most distal plate shaft locking hole, and carefully dissect the tissues down to the bone. Take care to avoid the deep branch of the peroneal nerve.

Insert the 5.5mm/4.5mm Perc Sleeve and 5.5mm/4.5mm Perc Trocar through the soft tissues until they contact the surface of the plate (Fig. 8).



Fig. 9

Remove the Trocar and thread the 3.2mm Perc Strut/Shaft Cannula into the plate hole (Fig. 9).



Fig. 10

Finger tighten the Cannula Nut. Insert a 3.2mm Perc Drill Tip Guide Wire through the cannula until the tip contacts the medial cortical wall (Fig. 10).



Fig. 11

Return to the metaphyseal portion of the plate, and insert another guide wire through a CENTRAL PROXIMAL plate hole to maintain the position of the Jig relative to the plate (Fig. 11).



Fig. 12

Then, loosen the Perc Cannula Nut and remove the 3.2mm Metaphyseal Perc Cannula from the CENTRAL plate hole. Use the 5.0mm Hex Perc Cannulated Screwdriver to insert a 70mm long 5.5mm Conical Screw into the CENTRAL PROXIMAL plate hole to secure the plate and reduce the plate to the tibial plateau (Fig. 12).



Fig. 13

Note: Insertion of a screw longer than 70mm may cause interference with other screws.

Observe placement of the plate head and use the fluoroscope to confirm that it is in the desired location.

Note: A screwdriver shaft can be used to loosely insert the screw under power but final seating **MUST** be accomplished by hand to avoid cross-threading of the screws in the plate or failure of the screw or driver.

Predrilling and tapping are not typically necessary as the flutes of the screws are self-drilling and self-tapping. If the bone is dense, the lateral cortex can be predrilled and tapped. If desired, use the 2.7mm Perc Cannulated Drill and 3.5mm Perc Cannulated Locking Screw Tap for a 3.5mm screw.

Note: Secure the JIG to the PLATE in at least two locations, one proximally and one distally using Percutaneous Cannulas and Cannula Nuts to maintain the position of the Jig relative to the plate. **DO NOT REMOVE** these until fixation is stable and nearly complete. Removal of the proximal and distal cannulas and cannula nuts will cause the Jig to shift, and may result in the inability to thread additional cannulas into the plate holes.

Screw length measurement

Metaphyseal Screws – the length measurement for screws in the metaphyseal region of the plate is measured line-to-line – from the base of the screw head to the tip of the screw. Placement of the tip of the Guide Wire will determine placement of the tip of the screw.

Diaphyseal Screws – the length measurement for screws in the diaphyseal region of the plate is also measured line-to-line – from the base of the screw head to the tip of the screw. In order to achieve full cortical purchase with these screws, it is recommended that 5mm be added to the screw length measurement to allow for the self-tapping flutes to penetrate the far cortex.

Note: Slide the Screwdriver Stop Ring onto the Perc Screwdriver Shaft and place it at the level of the black ring etched on the driver shaft. When the Blue Stop Ring hits the top of the Jig, power insertion must stop. Screws must be seated by hand. The Screwdriver Stop Ring is intended to be a visual cue to stop power insertion of locking screws.

Note: If lag screw reduction is necessary for any fragment, the lag screw must be inserted before inserting locking screws into that fragment.

The shaft portion of the plate can be compressed to the bone by either inserting a nonlocking screw through the most distal shaft compression slot or by using the Plate Reduction Instrument to hold the plate against the bone while inserting a locking screw.

The Plate Reduction Instrument can be used for:

- MINOR varus-valgus adjustment (<5°)
- Translational adjustments
- Stabilization of plate orientation with respect to the bone during insertion of the first screws
- MINOR alignment of segmental fragments

To reduce the plate to the shaft using a 4.5mm Cortical Screw, insert a 5.5mm/4.5mm Perc Sleeve and Trocar through the location in the Jig that corresponds to the first compression slot above the fracture site until they contact the surface of the plate (Fig. 13). Remove the Trocar, and insert a 3.2mm Strut/Shaft Perc Cannula through the Sleeve. Insert the 3.2mm Perc Drill Bit through the Cannula until it engages or passes through the medial cortical wall. Remove the Drill Bit and Cannula, and insert the 4.5mm Locking Screw Depth Gauge to measure for 4.5mm Cortical Screw length.

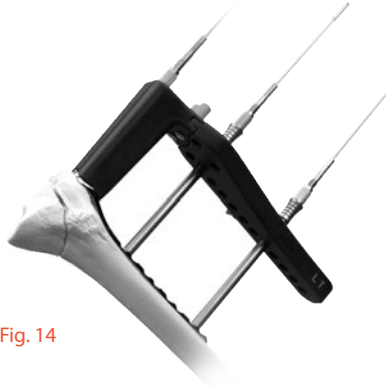


Fig. 14

Insert the appropriate length 4.5mm Cortical Screw using the 3.5mm Hex Percutaneous Screwdriver Shaft.

To use the Plate Reduction Instrument, make a stab incision at the desired location. Insert the Percutaneous Sleeve and Trocar through the Jig and soft tissues ensuring that contact is made with the surface of the plate. Remove the Trocar. Pass the Reduction Spin Knob over the distal portion of the Plate Reduction Instrument until it engages with the fine threads approximately half-way up the shaft of the instrument. Spin the knob until it is positioned close to the quick connect end of the instrument.

Insert the Plate Reduction Sleeve through the Percutaneous Sleeve and thread it into the plate. Next insert the Reduction Instrument through the Reduction Sleeve and into the bone fragment by hand or under power to the appropriate depth.

Remove the power attachment, if used, and begin spinning the knob toward the sleeve. Once the knob makes contact with the top of the sleeve, continue spinning while monitoring progress under C-arm. Stop when the desired reduction is achieved.

Note: DO NOT force tightening of the Reduction Spin Knob against the Reduction Sleeve as this may damage the instrument. If excessive force is required, soft tissue or other bone fragments may be causing interference with the reduction, or fracture reduction may have been lost. Re-check the position of the bone fragments, and repeat the process of reducing the fracture if necessary prior to continued use of the Plate Reduction Instrument.

Continue with shaft fixation.

Check the alignment of the shaft with A/P and lateral fluoroscopic views.

Note: In comminuted fractures, it may not always be possible or desirable to achieve anatomic reduction of the fracture.

Screw Trajectory



Plateau Fixation

For additional proximal fixation, insert 3.2mm Metaphyseal Perc Cannulas into the appropriate plate holes and finger tighten the Cannula Nuts. Insert additional 3.2mm Guide Wires through

the Cannulas. Then slide the 5.5mm Perc Cannulated Depth Gauge over each guide wire in the plate head until it contacts the top of the cannula. Read the proper screw length from the Depth Gauge. Loosen the 5.5mm/4.5mm Perc Cannula Nuts and remove the 3.2mm Perc Cannulas from all but ONE of the holes. Use the 5.0mm Hex Perc Cannulated Screwdriver to insert the appropriate length 5.5mm Cannulated Conical or Locking Screws over the guide wires and into the bone.

BE SURE THAT ALL SCREWS ARE SECURELY TIGHTENED.

Strut Screw Fixation

Next, insert the 5.5mm/4.5mm Perc Sleeve into the Strut Screw hole in the Jig (Fig. 14). Then insert a 3.2mm Percutaneous Strut/Shaft Cannula into the Sleeve in the strut screw hole in the Jig, and thread it into the plate. Hand tighten the Cannula Nut. Insert a 3.2mm Drill Tip Guide Wire through the Cannula. Again, carefully position the tip of the guide wire; it will indicate the position of the tip of the screw once it is inserted into the plate.

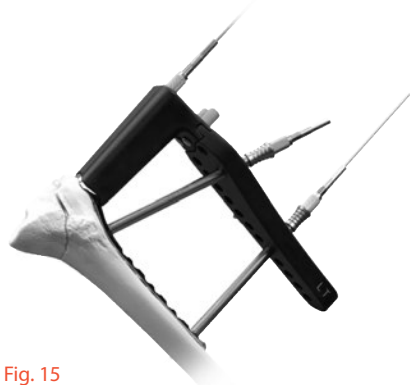


Fig. 15

Slide the 5.5mm Perc Cannulated Depth Gauge over the guide wire in the STRUT screw hole until it contacts the top of the cannula. Read the proper screw length from the Depth Gauge. Make sure to use correct side of Depth

Gauge (one side for STRUT SCREW USE and other for METAPHYSEAL USE). Loosen the Perc Cannula Nut, remove the cannula and insert the appropriate length 5.5mm Conical or Locking Screw over the Guide wire and into the bone.

NOTE: A screwdriver shaft can be used to loosely insert the screw under power but final seating **MUST** be accomplished by hand to avoid cross-threading of the screws in the plate or failure of the screw or driver.

Once adequate fixation is achieved, if necessary or desired, remove the Conical Screw from the CENTRAL PROXIMAL plate hole and replace it with a Locking Screw.

Shaft Fixation

Insert standard 4.5mm cortical screws through the additional compression slots in the plate as desired. If both locking and nonlocking screws will be used in the shaft, the nonlocking screws must be inserted first.

Make a stab incision at the appropriate location and insert the 5.5mm/4.5mm Perc Sleeve and Trocar through the Jig until they contact the plate, taking care to avoid the deep branch of the peroneal nerve.

Remove the Trocar, and predrill both cortices with the 3.2mm Perc Drill Bit. Read the proper screw length from the Locking Screw Depth Gauge. Then select and insert the appropriate length 4.5mm Cortical Screws using the 3.5mm Hex Perc Screwdriver Shaft.

To insert 4.5mm Locking Screws, make a stab incision at the appropriate location and insert 5.5mm/4.5mm Perc Sleeve and Trocar into the desired hole until they contact the plate, again taking care to avoid the deep branch of the peroneal nerve. Remove the Trocar and thread a 3.7mm Perc Cannula

into the plate hole. Finger tighten the 5.5mm/4.5mm Perc Cannula Nut. Use the 3.7mm Perc Drill through the cannula to predrill one or both cortices. Use the fluoroscope to confirm the drill position in both the A/P and lateral planes. Then loosen the Perc Cannula Nut and remove the Cannula.

Tapping is typically not necessary as the flutes of the screws are self-tapping. If the bone is dense, the lateral cortex may be tapped using the appropriate 4.5mm Screw Tap.

Insert the 4.5mm Perc Locking Screw Depth Gauge into the screw hole until the tip engages the opposite cortex or bottoms out in the hole. Read the proper screw length.

Use the 5.0mm Hex Perc Screwdriver to insert the 4.5mm Locking Screw. A screwdriver shaft may be used to loosely insert the screw under power, but the final seating **MUST** be accomplished by hand to avoid cross-threading of the screws in the plate holes or failure of the screw or driver.

Follow the same procedure for each additional 4.5mm Locking Screw.

BE SURE THAT ALL SCREWS ARE SECURELY TIGHTENED.

Make a final check of the limb alignment and fracture reduction. Then make sure that **ALL LOCKING SCREWS ARE SECURELY TIGHTENED** by hand before closing.



Wound Closure

Use the appropriate method for surgical closure of the incisions.

Postoperative Treatment

Postoperative treatment with locking plates does not differ from conventional open reduction internal fixation (ORIF) procedures.

Implant Removal

To remove locking screws, use the 5.0mm Hex Screwdriver to first unlock all screws from the plate and then remove the screws completely. **DO NOT** use the forward captive screwdrivers for screw removal.

Please refer to the package insert for product information, including contraindications, warnings, and precautionary information.

Surgical Pearls

To achieve appropriate reduction, and compression of the plate to the bone, follow the basic technique detailed below:

PIN proximally – PIN distally

LAG proximally – LAG distally

LOCK proximally – LOCK distally

Load the Wire Driver into a Jacobs Chuck and load a Screwdriver Shaft into a Trinkle connector to prevent having to repeatedly connect and disconnect instruments from a single connector/adapter.

If the locking screw is difficult to insert or stops advancing before locking to the plate, remove the screw and pre-drill with the appropriate drill bit. Then reinsert the screw. (This condition may be caused by very dense or thick cortical bone.)

Flexion/extension of the proximal tibial fragment may be achieved using the Plate Reduction Instrument as a joystick.

Bumps or other devices may be used under the proximal tibial metaphyseal area to help reduce the fracture in the lateral view.

Secure the JIG to the PLATE in at least two locations, one proximally and one distally using Percutaneous Cannulas and Cannula Nuts to maintain the position of the Jig relative to the plate. **DO NOT REMOVE** these until fixation is stable and nearly complete. Removal of the proximal and distal cannulas and cannula nuts will cause the Jig to shift, and may result in the inability to thread additional cannulas into the plate holes.

Make sure that **ALL LOCKING SCREWS ARE SECURELY TIGHTENED** by hand before closing.

Varus/valgus alignment can be checked using the C-arm and a cord or long guide wire from the femoral head to the center of the ankle joint on A/P or anteroposterior view. Use the C-Arm over the knee joint to check that the cord or guide wire passes 10mm medially of the center of the knee joint. Adjustment to varus/valgus reduction can be achieved using the Plate Reduction Instrument.

A distractor or large external fixator may also be useful in gaining reduction.

Cleaning of the cannulated instruments is necessary for proper function.

Instruments and Implants

Order Information

Item Number	Item Description	Qty in Set
00-2360-000-22	Periarticular Locking Plate System — 5.5/4.5mm MIS Instrument Set	
00-2358-065-00	5.5/4.5mm Percutaneous Instrument Case	1
00-2360-012-01	5.5/4.5mm Plate Reduction Instrument	2
00-2360-012-02	5.5/4.5mm Plate Reduction Sleeve	2
00-2360-012-03	Reduction Spin Knob	2
00-2360-025-32	3.2mm Perc Strut Cannula	2
00-2360-025-37	3.7mm Perc Cannula	4
00-2360-026-32	3.2mm Perc Cannula	4
00-2360-032-00	3.2mm Perc Drill	2
00-2360-036-32	3.2mm Perc Drill Tip Guide Wire	5
00-2360-045-45	4.5mm Perc Locking Screw Depth Gauge	1
00-2360-050-00	3.5mm Hex Perc Screwdriver	2
00-2360-050-45	4.5mm Perc Locking Screw Tap	2
00-2360-051-45	4.5mm Perc ZPS Screw Tap	2
00-2360-051-55	5.5mm Perc Cannulated Locking Screw Tap	2
00-2360-067-50	5.0mm Hex Perc Screwdriver	2
00-2360-068-50	5.0mm Hex Perc Cannulated Screwdriver	2
00-2360-076-47	4.7mm Perc Cannulated Drill	2
00-2360-080-00	Torque Limiting Attachment	1
00-2360-085-00	Guide Wire Inserter	1
00-2360-086-00	Modular Handle	2
00-2360-088-00	5.5/4.5mm Cannula Inserter	1
00-2360-090-08	5.5/4.5mm Perc Sleeve	4
00-2360-090-09	5.5/4.5mm Perc Trocar	2
00-2360-090-55	5.5mm Perc Cannulated Depth Gauge	1
00-2360-315-37	3.7mm Perc Drill	2

Item Number	Item Description	Qty in Set
00-2360-000-16	Periarticular Locking Plate System — 5.5/4.5mm MIS Jig Set	
00-2358-070-05	5.5/4.5mm Percutaneous Jig Case	1
00-2360-089-00	5.5/4.5mm Hole Indicator	1 (1=1 box of 5)
00-2360-090-15	Proximal Tibial Perc Jig, Right	1
00-2360-090-16	Proximal Tibial Perc Jig, Left	1
00-2360-090-24	5mm Allen Hex Wrench	1
00-2360-091-15	5.5mm Proximal Lateral Tibial Perc Jig, Right	1
00-2360-091-16	5.5mm Proximal Lateral Tibial Perc Jig, Left	1
00-2357-000-08	5.5mm Proximal Tibial Locking Plate Set	
00-2357-006-04	5.5mm Proximal Lateral Tibial Locking Plate, 4 Hole 97mm Lng, Left	1
00-2357-006-06	5.5mm Proximal Lateral Tibial Locking Plate, 6 Hole 128mm Lng, Left	1
00-2357-006-08	5.5mm Proximal Lateral Tibial Locking Plate, 8 Hole 158mm Lng, Left	1
00-2357-006-10	5.5mm Proximal Lateral Tibial Locking Plate, 10 Hole 189mm Lng, Left	1
00-2357-006-12	5.5mm Proximal Lateral Tibial Locking Plate, 12 Hole 219mm Lng, Left	1
00-2357-006-14	5.5mm Proximal Lateral Tibial Locking Plate, 14 Hole 250mm Lng, Left	1
00-2357-005-04	5.5mm Proximal Lateral Tibial Locking Plate, 4 Hole 97mm Lng, Right	1
00-2357-005-06	5.5mm Proximal Lateral Tibial Locking Plate, 6 Hole 128mm Lng, Right	1
00-2357-005-08	5.5mm Proximal Lateral Tibial Locking Plate, 8 Hole 158mm Lng, Right	1
00-2357-005-10	5.5mm Proximal Lateral Tibial Locking Plate, 10 Hole 189mm Lng, Right	1
00-2357-005-12	5.5mm Proximal Lateral Tibial Locking Plate, 12 Hole 219mm Lng, Right	1
00-2357-005-14	5.5mm Proximal Lateral Tibial Locking Plate, 14 Hole 250mm Lng, Right	1

Item Number	Item Description	Qty in Set	Item Number	Item Description	Qty in Set
00-2359-000-01	5.5/4.5mm Locking Screw Set		00-2359-012-45	4.5mm Locking Screw 12mm Long	2
00-2359-030-55	5.5mm Cannulated Locking Screw 30mm Long	2	00-2359-014-45	4.5mm Locking Screw 14mm Long	2
00-2359-035-55	5.5mm Cannulated Locking Screw 35mm Long	2	00-2359-016-45	4.5mm Locking Screw 16mm Long	2
00-2359-040-55	5.5mm Cannulated Locking Screw 40mm Long	2	00-2359-018-45	4.5mm Locking Screw 18mm Long	2
00-2359-045-55	5.5mm Cannulated Locking Screw 45mm Long	2	00-2359-020-45	4.5mm Locking Screw 20mm Long	2
00-2359-050-55	5.5mm Cannulated Locking Screw 50mm Long	4	00-2359-022-45	4.5mm Locking Screw 22mm Long	2
00-2359-055-55	5.5mm Cannulated Locking Screw 55mm Long	4	00-2359-024-45	4.5mm Locking Screw 24mm Long	2
00-2359-060-55	5.5mm Cannulated Locking Screw 60mm Long	4	00-2359-026-45	4.5mm Locking Screw 26mm Long	2
00-2359-065-55	5.5mm Cannulated Locking Screw 65mm Long	4	00-2359-028-45	4.5mm Locking Screw 28mm Long	4
00-2359-070-55	5.5mm Cannulated Locking Screw 70mm Long	4	00-2359-030-45	4.5mm Locking Screw 30mm Long	4
00-2359-075-55	5.5mm Cannulated Locking Screw 75mm Long	4	00-2359-032-45	4.5mm Locking Screw 32mm Long	4
00-2359-080-55	5.5mm Cannulated Locking Screw 80mm Long	4	00-2359-034-45	4.5mm Locking Screw 34mm Long	4
00-2359-085-55	5.5mm Cannulated Locking Screw 85mm Long	4	00-2359-036-45	4.5mm Locking Screw 36mm Long	4
00-2359-090-55	5.5mm Cannulated Locking Screw 90mm Long	2	00-2359-038-45	4.5mm Locking Screw 38mm Long	4
00-2359-095-55	5.5mm Cannulated Locking Screw 95mm Long	2	00-2359-040-45	4.5mm Locking Screw 40mm Long	4
00-2359-100-55	5.5mm Cannulated Locking Screw 100mm Long	2	00-2359-042-45	4.5mm Locking Screw 42mm Long	4
00-2359-050-56	5.5mm Cannulated Conical Screw 50mm Long	2	00-2359-044-45	4.5mm Locking Screw 44mm Long	4
00-2359-055-56	5.5mm Cannulated Conical Screw 55mm Long	2	00-2359-046-45	4.5mm Locking Screw 46mm Long	4
00-2359-060-56	5.5mm Cannulated Conical Screw 60mm Long	2	00-2359-048-45	4.5mm Locking Screw 48mm Long	4
00-2359-065-56	5.5mm Cannulated Conical Screw 65mm Long	2	00-2359-050-45	4.5mm Locking Screw 50mm Long	4
00-2359-070-56	5.5mm Cannulated Conical Screw 70mm Long	2	00-2359-055-45	4.5mm Locking Screw 55mm Long	4
00-2359-075-56	5.5mm Cannulated Conical Screw 75mm Long	2	00-2359-060-45	4.5mm Locking Screw 60mm Long	2
00-2359-080-56	5.5mm Cannulated Conical Screw 80mm Long	2	00-2359-065-45	4.5mm Locking Screw 65mm Long	2
00-2359-085-56	5.5mm Cannulated Conical Screw 85mm Long	2	00-2359-070-45	4.5mm Locking Screw 70mm Long	2
00-2359-090-56	5.5mm Cannulated Conical Screw 90mm Long	2	Items also available		
			00-2360-060-50	5.0mm Hex Percutaneous Screwdriver, F. C.	0 (Optional)
			00-2360-061-50	5.0mm Hex Percutaneous Cannulated Screwdriver, F. C.	0 (Optional)
			00-2360-090-10	5.5/4.5mm Perc Cannula Nut Replacement item - case accommodates 2 additional	0
			00-2360-090-11	Percutaneous Jig Hinge Bolt Replacement item	0
			00-2360-090-13	Percutaneous Jig Thumb Screw Replacement item	0

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