



**Zimmer®**  
**Periarticular**  
**Distal Femoral**  
**Locking Plate**  
Surgical Technique



The Science of the Landscape



## Surgical Technique

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## Table of Contents

<b>Introduction</b>	<b>2</b>
Locking Screw Technology	2
Locking Plate Technology	2
Distal Femur Plate Indications	2
Fracture Classification	2
Plate Features	3
<b>Surgical Technique</b>	<b>4</b>
Required Instrumentation	4
Preoperative Preparation	4
Fracture Reduction	4
Plate Positioning	5
Screw Trajectory	9
Condylar Fixation	10
Shaft Fixation	12
Wound Closure	14
Postoperative Treatment	14
Implant Removal	14
<b>Surgical Pearls</b>	<b>14</b>
<b>Instruments and Implants</b>	<b>15</b>
Order Information	16

## Introduction

The *Zimmer* Periarticular Locking Plate System combines locking screw technology with periarticular plates to create fixed-angle constructs for use in comminuted fractures or where deficient bone stock or poor bone quality is encountered. The fixed-angle plate/screw device can be used in osteopenic bone and other areas where traditional screw fixation may be compromised.

The Periarticular Locking Plates will accommodate standard screws, as well as locking screws with threaded heads. When necessary, interfragmentary compression can be achieved with lag screws.

Cannulated screws and instruments allow provisional fixation with guide pins in the metaphysis. This helps ensure that the threaded locking screw heads align properly with the threaded plate holes.

All plate configurations contain locking screw holes in the plate head, and alternating locking and compression screw slots in the shaft.

Three types of locking screws are available with the system:

- 5.5mm cannulated locking screws for use in the plate head
- 5.5mm cannulated conical screws for use in the plate head
- 4.5mm noncannulated locking screws for use in the plate shaft

## Locking Screw Technology

The heads of the locking screws contain male threads while the holes in the plates contain female threads. This allows the screw head to be threaded into the plate hole, locking the screw into the plate. This technical innovation provides the ability to create a fixed-angle construct while using familiar plating techniques.

## Locking Plate Technology

By using locking screws in a bone plate, a fixed-angle construct is created. In osteopenic bone or fractures with multiple fragments, secure bone purchase with conventional screws may be compromised. Locking screws do not rely on bone/plate compression to resist patient load, but function similarly to multiple small angled blade plates. In osteopenic bone or comminuted fractures, the ability to lock screws into a fixed-angle construct is imperative.

By combining locking screw holes with compression screw slots in the shaft, the plate can be used as both a locking device and a fracture compression device. If compression is desired, it must be achieved first by inserting the standard screws in the compression screw slots before inserting any locking screws.

## Indications

### The Periarticular Locking Plate

**System** is indicated for temporary internal fixation and stabilization of osteotomies and fractures, including:

- Comminuted fractures
- Supracondylar fractures
- Intra-articular and extra-articular condylar fractures
- Fractures in osteopenic bone
- Nonunions
- Malunions

### Fracture Classification

The OTA/AO classification for long bone fractures is divided into three general groups, each with three subgroups. The groups are extra-articular, partial articular, and complex articular. The subgroups reflect the degree of metaphyseal comminution.

Refer to **OTA/AO Comprehensive Classification of Long Bones** for more specific information.

### Plate Features

- Anatomically contoured plates are precontoured to create a fit that requires little or no additional bending and helps with metaphyseal/diaphyseal reduction
- Threaded holes create a 95 degree fixed angle between the plate head and the locking screws to allow screw placement that is parallel to the joint line
- The central locking screw hole in plate head provides initial reduction of the plate to the condyles
- The low profile plate facilitates fixation without impinging on soft tissue
- Plates are available in a variety of sizes and lengths, from 6 to 18 holes, left and right
- Dual-compression slots will accommodate periarticular screws or conventional stainless steel screws and allow bi-directional compression
- The last diaphyseal plate hole is designed to accommodate the tension device (00-4817-000-05)

The locking plate design does not require compression between the plate and bone to accommodate loading. Therefore, purchase of the screws in the bone can be achieved with a thread profile that is shallower than that of traditional screws. The shallow thread profile, in turn, allows for screws with a large core diameter to accommodate loading with improved bending and shear strength (Fig. 1).

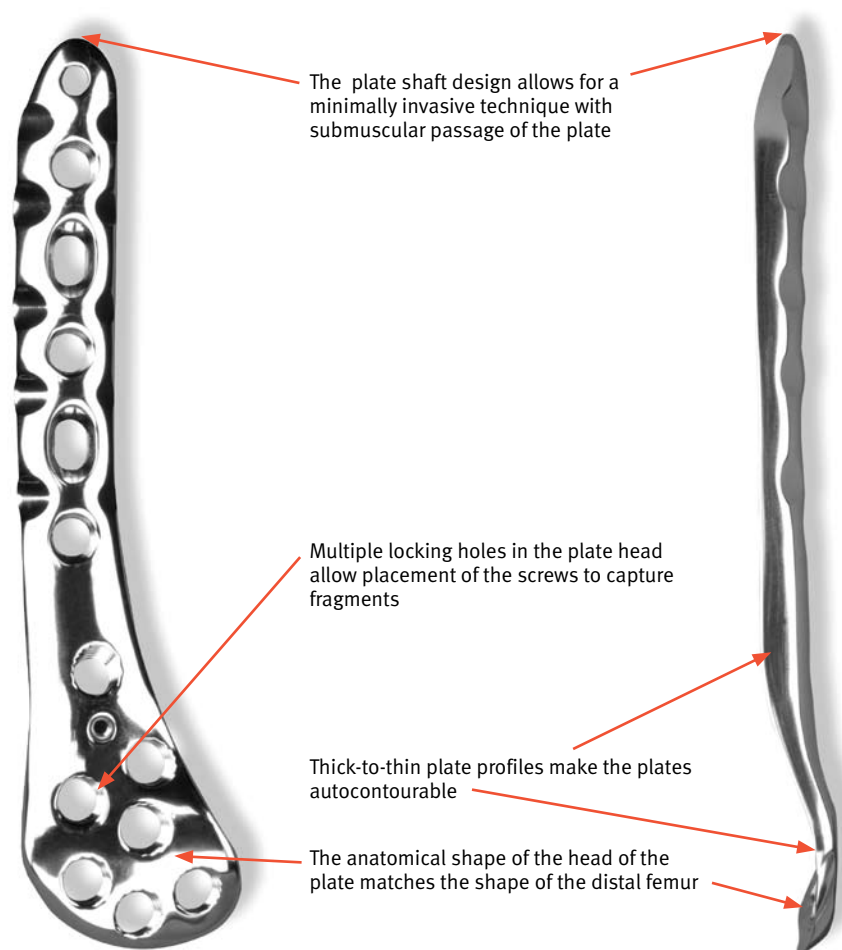


Fig 1. Zimmer Periarticular Distal Femoral Locking Plate features.

## Surgical Technique

### Required Instrumentation

The following sets may be required for application of the 5.5mm Periarticular Locking Proximal Tibia Plates:

- Standard Screw Set
- Basic Instrument Set
- Basic Forcep Set
- 5.5mm/4.5mm Locking Screw and Instrument Set
- Periarticular Distal Femoral Locking Plate and Standard Jig Set
- Linear Bone Clamps

### 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 distal femur in both the lateral and anterior/posterior (A/P) views (Figs. 2, 3, & 4).

### Fracture Reduction

**It is imperative that accurate reduction of the fracture be obtained prior to and maintained during application of the distal lateral femoral 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.

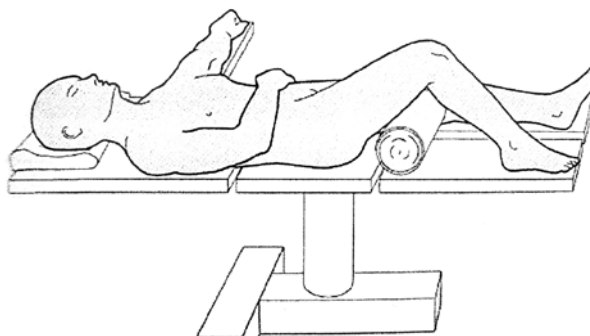


Fig 2. Patient in the supine position on a radiolucent table.

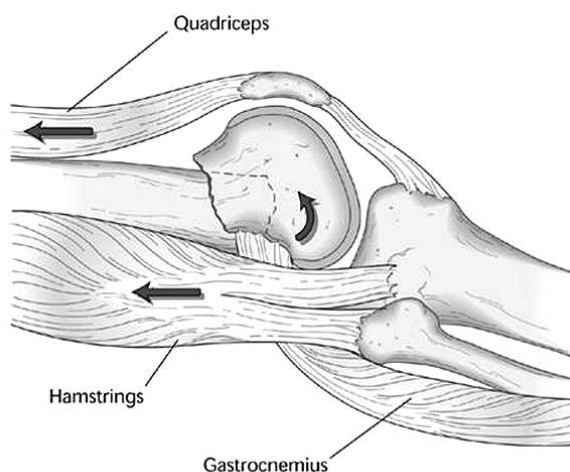


Fig 3.

After radiographic verification of preliminary reduction of the fracture, use the preferred approach and technique to expose the distal lateral femur.

Reduce the intra-articular fragments using linear bone clamps or Kirschner wires to temporarily hold the reduction. For a Hoffa fracture, reduce the posterior articular fragment and stabilize it with K-wires inserted from anterior to posterior.

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.

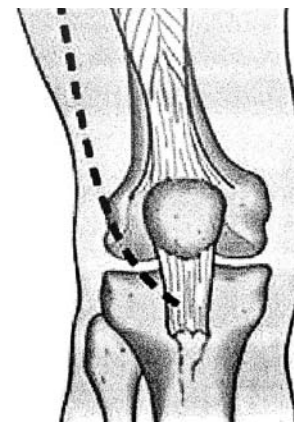


Fig 4.

Use 3.5mm cortical screws, 4.0mm cancellous screws, *Herbert™* or *Herbert/Whipple®* screws for fixation of a posterior articular Hoffa fragment. Insert the screws from anterior to posterior, and where applicable countersink the heads below the level of the articular cartilage.

### Plate Positioning

Hold the Metaphyseal Jig on the selected plate (Fig. 5). Insert the 5.5mm Standard Jig Sleeve into the CENTRAL hole of the Jig/plate (Fig. 6.) and thread the 3.2mm Standard Cannula into the plate hole (Fig. 7). **DO NOT** tighten the set screw.

**NOTE:** Attaching the Metaphyseal Jig to the plate using the set screw at this time may cause or result in improper placement of the plate on the bone.

**NOTE:** The Cannula Inserter may be used to tighten the cannula if necessary (Fig. 7A).

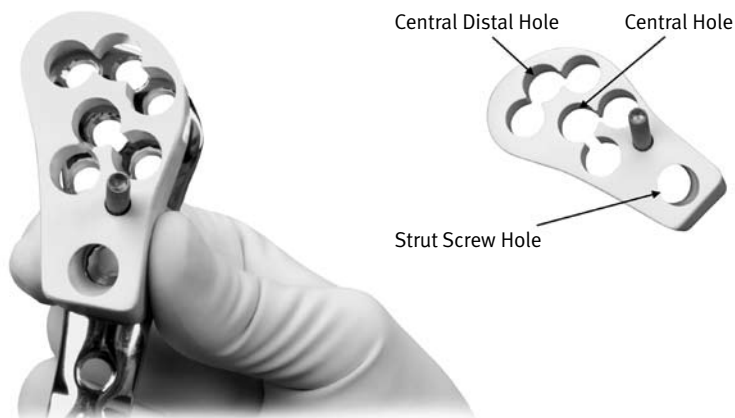


Fig 5.



Fig 6.



Fig 7A.



Fig 7.

Use this construct to place the initial 3.2mm Drill Tip Guide Wire in the metaphysis (Fig. 8). Check plate placement – visually and fluoroscopically to ensure that the plate is positioned correctly on the metaphysis of the bone. If placement is appropriate, hold the Jig on the plate and finger tighten or use the 3.5mm Screwdriver to tighten the set screw (Fig. 9).

**NOTE: The Metaphyseal Jig and Standard Cannulas MUST be used to ensure that the screws align properly with the threaded plate holes. Failure to use the Metaphyseal Jig and Standard Cannulas may result in cross-threading or improper seating of the screws.**

**NOTE: The position of the plate on the bone must be verified because of the tendency to place the proximal end of the plate too far anterior on the femoral shaft. This placement can cause the locking screws to be placed at a tangent and can result in insufficient holding strength.**

Because the femoral shaft may not be aligned with the distal 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 intact or reconstructed condyles. This will determine the alignment of the shaft.

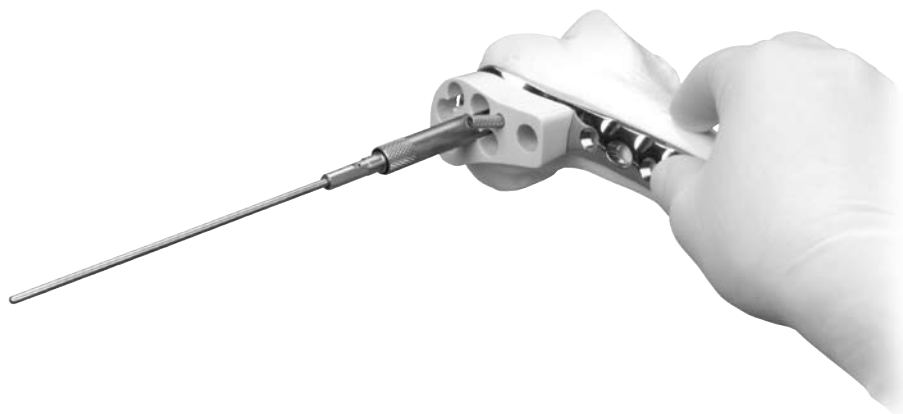


Fig 8.



Fig 9.

**NOTE: It is easier to thread the cannulas into the plate before placing the plate on the bone.**

Once the plate is properly positioned, insert the Jig Sleeve into the most CENTRAL DISTAL locking hole in the plate head (Fig. 10). Thread the 3.2mm Guide Wire Cannula through the sleeve and into the plate hole (Fig. 11).

**WARNING: Do not contour or bend the plate at or near a threaded hole, as doing so may deform the threaded hole and cause incompatibility with the Locking Screw.**

Insert a 3.2mm Drill Tip Guide Wire through the cannula until the tip engages the medial cortical wall (Fig. 12). Be sure that the wire remains parallel to both axes. Use the fluoroscope to confirm the wire position in both the A/P and lateral planes. Adjust the wire location if necessary.

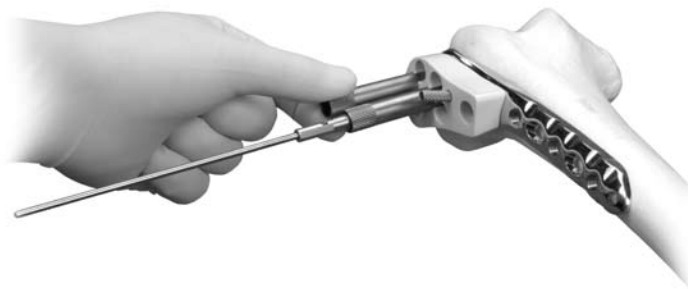


Fig 10.



Fig 11.



Fig 12.

Thread a 3.2mm Standard Cannula into one of the most proximal holes in the plate shaft. Insert a 3.2mm Drill Tip Guide Wire through the Cannula. Again, check plate and bone position both visually and fluoroscopically to ensure proper fracture reduction and plate placement.

Once the plate is placed appropriately and properly aligned, slide the 5.5mm Cannulated Screw Depth Gauge over the guide wire in the CENTRAL plate hole until it contacts the top of the cannula. Read proper screw length from the guide (Fig. 13).

#### 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**.

The Zimmer Periarticular Distal Femoral Locking Plate is designed to be placed slightly anteriorly on the distal femoral condyles. **In order to achieve an accurate lateral x-ray or c-arm image, it will be necessary to externally rotate the affected limb 20-30°.** As in distal targeting of intramedullary nails, **visualization of “round holes”** from the cannulas will ensure a true lateral image. In other words, the x-ray beam must be in line with the axis of the cannulas.

**NOTE: Slide the Screwdriver Stop Ring onto the screwdriver shaft and place it at the level of the black ring etched on the driver shaft (Fig. 14). When the Blue Stop Ring hits the top of the Jig Sleeve, 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.**

Remove the Guide Wire Cannula and use the 5.0mm Hex-head Cannulated Screwdriver to insert a 70mm Long 5.5mm Conical Screw (Fig. 15) into the CENTRAL plate hole to secure the plate, or if preferred, use a linear bone clamp or Plate Reduction Instrument for provisional fixation. Observe placement of the plate head and use the fluoroscope to confirm that it is in the desired location (Fig. 16).

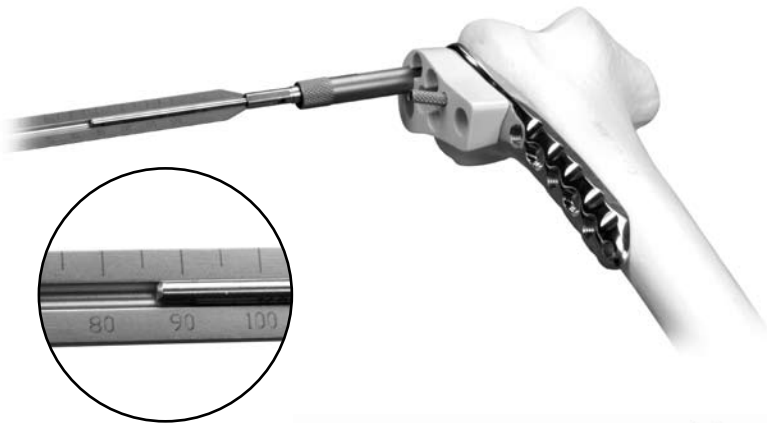


Fig 13.



Fig 14.



Fig 15.



Fig 16.

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

**NOTE:** A screwdriver shaft can 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.

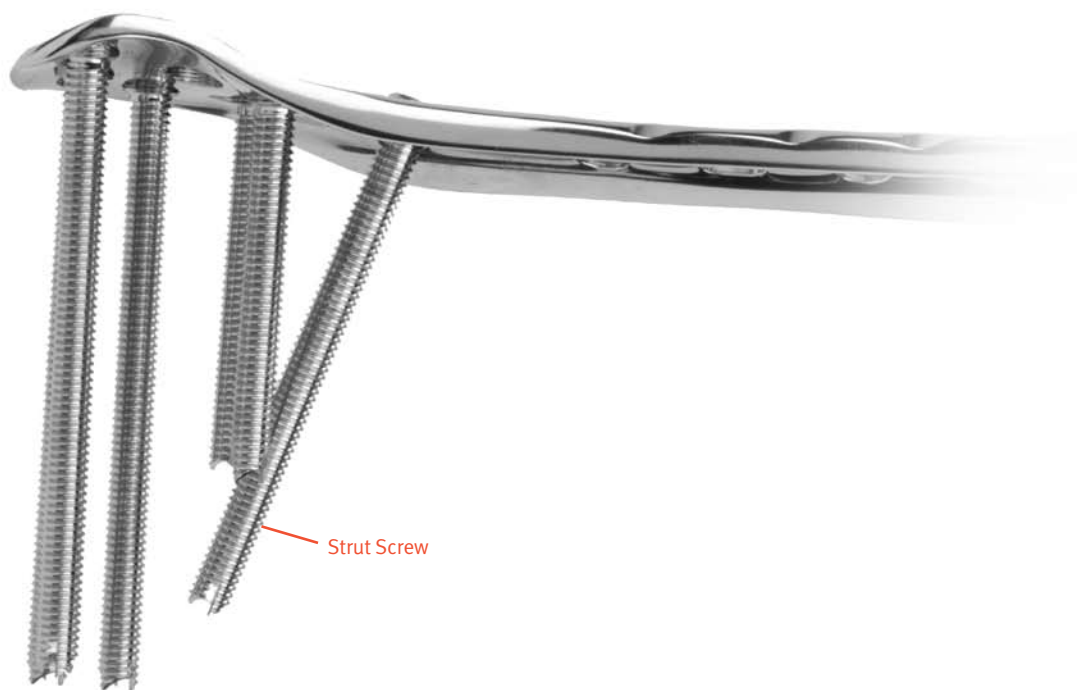
**NOTE:** If lag screw fixation is necessary for any fragment, the lag screw must be inserted before inserting locking screws into that fragment.

Predrilling and tapping are typically not 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 4.7mm Cannulated Drill and 5.5mm Cannulated Tap (Fig. 17) for a 5.5mm screw.**



Fig 17.

## Screw Trajectory



### Condylar Fixation

For additional condylar fixation, slide the 5.5mm Cannulated Screw Depth Gauge over the guide wire in the CENTRAL DISTAL locking hole in the plate head until it contacts the top of the cannula. Read the proper screw length from the guide, remove the 3.2mm Guide Wire Cannula and use the 5.0mm Hex-head Screwdriver to insert the appropriate length 5.5mm Conical or Locking Screw over the guide wire and into the bone (Fig. 18).

Follow the same procedure for each additional 5.5mm Cannulated Locking Screw to be inserted into the metaphyseal portion of the plate. Be sure that all screws are securely tightened.

Next, insert the Jig Sleeve into the STRUT screw hole (Fig. 19). Thread a 3.2mm Guide Wire Cannula into the plate hole and insert a 3.2mm Drill Tip Guide Wire (Fig. 20). 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.

Slide the 5.5mm Cannulated Screw Depth Gauge over the guide wire in the STRUT screw hole in the plate until it contacts the top of the cannula. Read the proper screw length from the guide. Insert the appropriate length 5.5mm Conical or Locking Screw over the guide wire and into the bone.



Fig 18.



Fig 19.

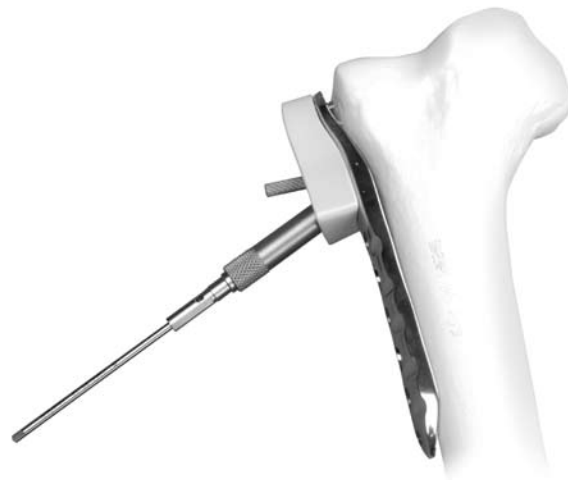


Fig 20.

Remove the 3.2mm Guide Wire Cannula (Fig. 21) and use the 5.0mm Hex-head Cannulated Driver to insert the appropriate length 5.5mm Conical or Locking Screw over the guide wire and into the bone (Fig. 22). **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 holes or failures of the screw or driver.** Once adequate fixation is achieved, if necessary or desired, remove the Conical Screw from the CENTRAL plate hole and replace it with a Locking Screw.

**NOTE: If the plate shifts during screw insertion, all the pins and screws must be removed and reinserted for the screws to lock properly to the plate.**

**NOTE: If a plate screw impinges on one of the intra-articular lag screws, the lag screw must be removed and repositioned.**

Loosen the set screw and remove the Metaphyseal Jig (Fig. 23).



Fig 21.

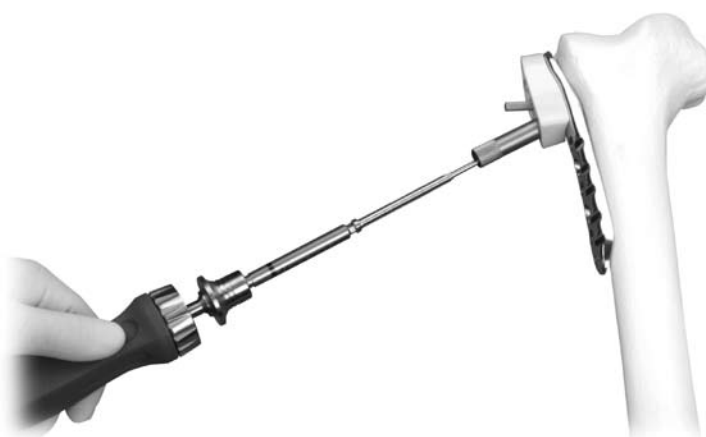


Fig 22.



Fig 23.

### Shaft Fixation

Reduce the plate to the shaft. Confirm rotation of the extremity by clinical examination. Check the alignment of the shaft with A/P and lateral fluoroscopic views. The shaft portion of the plate can be compressed to the bone by either inserting a nonlocking screw through the most proximal shaft compression slot or by using the Plate Reduction Instrument to hold the plate against the bone while inserting a locking screw. If preferred, a linear bone clamp can be used.

The Plate Reduction Instrument can be used for:

- MINOR varus-valgus adjustment ( $<5^\circ$ )
- Translational adjustments
- Stabilization of plate orientation with respect to the bone during insertion of the first screws
- Alignment of segmental fragments

#### When used without the MIS™ Jig

To use the Plate Reduction Instrument, make a stab incision at the desired location. Insert the 5.5mm/4.5mm Percutaneous Sleeve and Trocar through soft tissues ensuring that contact is made with the surface of the plate at the desired location. Remove the Trocar. Insert the Plate Reduction Sleeve through the Percutaneous Sleeve and thread it into the plate. Thread the Reduction Spin Knob all the way onto the Shaft of the Reduction Instrument. Next insert the Reduction Instrument through the Reduction Sleeve and into the bone fragment by hand or under power. Rotating the Spin Knob clockwise will cause it to contact the top of the Reduction Sleeve and in turn, draw the plate and bone together. Monitor progress using C-Arm images. Stop when desired reduction is achieved.

Once reduction is achieved, and it is appropriate, the plate may be loaded in tension using the Tension Device [00-4817-005-00].

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

Insert standard 4.5mm cortical (Fig. 24) screws through the 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.



Fig 24.

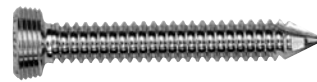


Fig 25.



Fig 26.

Predrill both cortices with the drill bit. Measure for screw length using the depth gauge. Then select and insert the appropriate length 4.5mm Cortical Screws using the Large Hex Screwdriver.

To insert 4.5mm Locking Screws, thread the 3.7mm Standard Cannula (Black Ring) into the desired locking hole (Fig. 25). Use the 3.7mm Standard Drill through the cannula to drill (Fig. 26). Use the fluoroscope to confirm the drill position in both the A/P and lateral planes. Then 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 can be tapped. If desired, use the 4.5mm Screw Tap (Fig. 27) to tap for the 4.5mm screw.

Insert the 4.5mm Locking Screw Depth Gauge (Fig. 28) into the screw hole until the tip of the gauge bottoms out in the hole. Read the proper screw length from the gauge at the point where the gauge meets the surface of the plate.

Use the 5.0mm Hex-head Driver to insert the 4.5mm Locking Screw (Fig. 29). A screwdriver shaft can 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 shaft locking screws are securely tightened.

Securely tighten the distal locking screws again by hand before closing.



Fig 27.



Fig 28.

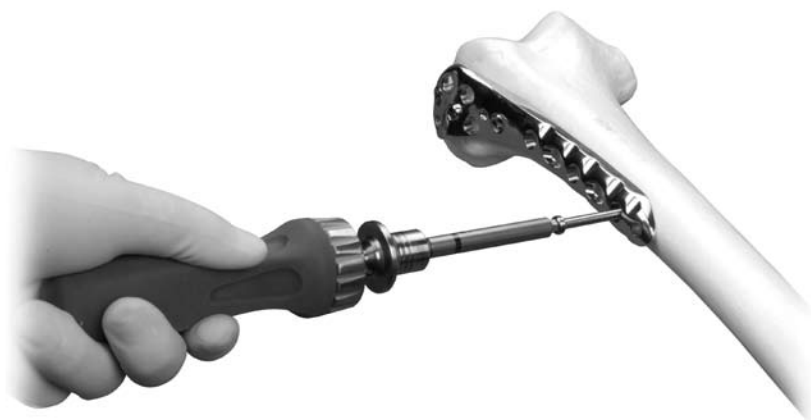


Fig 29.

### Wound Closure

Use the appropriate method for surgical closure of the incision.

### 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 Large Hexagonal screwdriver, 5.0mm Hex 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

Depending upon the screw position in the plate, the screw head may not be flush with the plate surface. If unsure that the screw is seated, loosen screw and retighten.

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 distal femoral fragment may be achieved using the Plate Reduction Instrument as a joystick.

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

Varus/valgus 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 antero-posterior 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. Minor 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. The cleaning stylet can clear debris in the cannulations and prevent binding of the instruments. The cleaning brush should be used postoperatively.

## Instruments and Implants



**Distal Lateral Femoral Plate Jig, Right**  
00-2360-090-01



**Distal Lateral Femoral Plate Jig, Left**  
00-2360-090-02



**5.5mm/4.5mm Standard Jig Sleeve**  
00-2360-090-04



**3.2mm Standard Cannula**  
00-2360-021-32



**Cannula Inserter** 00-2360-088-00



**3.2mm Standard Drill Tip Guide Wire**  
00-2360-033-32



**Guide Wire Inserter** 00-2360-085-00



**5.5mm Cannulated Locking Screw  
Depth Gauge** 00-2360-041-55



**4.7mm Std Cannulated Drill**  
00-2360-071-47



**5.0mm Hex Std Cannulated  
Screwdriver** 00-2360-066-50



**Modular Handle** 00-2360-086-00



**3.7mm Standard Cannula**  
00-2360-020-37



**3.7mm Std Drill** 00-2360-225-37



**4.5mm Locking Screw Standard  
Depth Gauge** 00-2360-040-45



**4.5mm Locking Screw Tap**  
00-2360-053-45



**5.0mm Hex Std Screwdriver**  
00-2360-065-50



**5.0mm Screwdriver Stop Ring**  
00-2360-065-05

## Order Information

### Distal Femur Plate Standard Jig Set - Set #00-2360-000-11

Prod. No.	Description
00-2360-090-01	Distal Lateral Femoral Plate Jig, Right
00-2360-090-02	Distal Lateral Femoral Plate Jig, Left
00-2358-010-00	Dist Lat Fem Plate/Jig Case

### Distal Lateral Femur Locking Plate Set - Set #00-2357-000-13

Prod. No.	Description
00-2357-102-06	Distal Lateral Femoral Locking Plate, 6 Hole, Left
00-2357-102-10	Distal Lateral Femoral Locking Plate, 10 Hole, Left
00-2357-102-14	Distal Lateral Femoral Locking Plate, 14 Hole, Left
00-2357-102-18	Distal Lateral Femoral Locking Plate, 18 Hole, Left
00-2357-101-06	Distal Lateral Femoral Locking Plate, 6 Hole, Right
00-2357-101-10	Distal Lateral Femoral Locking Plate, 10 Hole, Right
00-2357-101-14	Distal Lateral Femoral Locking Plate, 14 Hole, Right
00-2357-101-18	Distal Lateral Femoral Locking Plate, 18 Hole, Right

### 5.5mm/4.5mm Periarticular Locking Instrument Set - Set #00-2360-000-01

Prod. No.	Description
00-1147-073-00	Cleaning Stylet
00-1147-078-00	Cleaning Brush
00-2358-035-00	Distal Lateral Femoral Locking Screw Instrument Case
00-2360-012-01	5.5mm Plate Reduction Instrument
00-2360-012-02	5.5mm Plate Reduction Sleeve
00-2360-012-03	Plate Reduction Spin Knob
00-2360-020-37	3.7mm Standard Cannula
00-2360-021-32	3.2mm Standard Cannula
00-2360-033-32	3.2mm Standard Drill Tip Guide Wire
00-2360-040-45	4.5mm Locking Screw Standard Depth Gauge
00-2360-041-55	5.5mm Cannulated Locking Screw Depth Gauge
00-2360-050-50	5.0mm Hex Fwd Cap Screwdriver
00-2360-051-50	5.0mm Hex Cann Fwd Cap Screwdriver
00-2360-053-45	4.5mm Locking Screw Tap
00-2360-054-55	5.5mm Cannulated Locking Screw Tap
00-2360-065-05	5.0mm Screwdriver Stop Ring
00-2360-065-50	5.0mm Hex Std Screwdriver
00-2360-066-50	5.0mm Hex Std Cannulated Screwdriver
00-2360-071-47	4.7mm Std Cannulated Drill
00-2360-085-00	Guide Wire Insertor
00-2360-086-00	Modular Handle
00-2360-087-00	Ratcheting Modular Handle
00-2360-088-00	Cannula Insertor
00-2360-090-04	5.5mm/4.5mm Standard Jig Sleeve
00-2360-225-37	3.7mm Std Drill

### 5.5mm/4.5mm Locking Screw Set - Set #00-2359-000-01

Prod. No.	Description
00-2359-030-55	5.5mm Cannulated Locking Screw 30mm Lng
00-2359-035-55	5.5mm Cannulated Locking Screw 35mm Lng
00-2359-040-55	5.5mm Cannulated Locking Screw 40mm Lng
00-2359-045-55	5.5mm Cannulated Locking Screw 45mm Lng
00-2359-050-55	5.5mm Cannulated Locking Screw 50mm Lng
00-2359-055-55	5.5mm Cannulated Locking Screw 55mm Lng
00-2359-060-55	5.5mm Cannulated Locking Screw 60mm Lng
00-2359-065-55	5.5mm Cannulated Locking Screw 65mm Lng
00-2359-070-55	5.5mm Cannulated Locking Screw 70mm Lng
00-2359-075-55	5.5mm Cannulated Locking Screw 75mm Lng
00-2359-080-55	5.5mm Cannulated Locking Screw 80mm Lng
00-2359-085-55	5.5mm Cannulated Locking Screw 85mm Lng
00-2359-090-55	5.5mm Cannulated Locking Screw 90mm Lng
00-2359-095-55	5.5mm Cannulated Locking Screw 95mm Lng
00-2359-100-55	5.5mm Cannulated Locking Screw 100mm Lng
00-2359-050-56	5.5mm Cannulated Conical Screw 50mm Lng
00-2359-055-56	5.5mm Cannulated Conical Screw 55mm Lng
00-2359-060-56	5.5mm Cannulated Conical Screw 60mm Lng
00-2359-065-56	5.5mm Cannulated Conical Screw 65mm Lng
00-2359-070-56	5.5mm Cannulated Conical Screw 70mm Lng
00-2359-075-56	5.5mm Cannulated Conical Screw 75mm Lng
00-2359-080-56	5.5mm Cannulated Conical Screw 80mm Lng
00-2359-085-56	5.5mm Cannulated Conical Screw 85mm Lng
00-2359-090-56	5.5mm Cannulated Conical Screw 90mm Lng
00-2359-012-45	4.5mm Locking Screw 12mm Lng
00-2359-014-45	4.5mm Locking Screw 14mm Lng
00-2359-016-45	4.5mm Locking Screw 16mm Lng
00-2359-018-45	4.5mm Locking Screw 18mm Lng
00-2359-020-45	4.5mm Locking Screw 20mm Lng
00-2359-022-45	4.5mm Locking Screw 22mm Lng
00-2359-024-45	4.5mm Locking Screw 24mm Lng
00-2359-026-45	4.5mm Locking Screw 26mm Lng
00-2359-028-45	4.5mm Locking Screw 28mm Lng
00-2359-030-45	4.5mm Locking Screw 30mm Lng
00-2359-032-45	4.5mm Locking Screw 32mm Lng
00-2359-034-45	4.5mm Locking Screw 34mm Lng
00-2359-036-45	4.5mm Locking Screw 36mm Lng
00-2359-038-45	4.5mm Locking Screw 38mm Lng
00-2359-040-45	4.5mm Locking Screw 40mm Lng
00-2359-042-45	4.5mm Locking Screw 42mm Lng
00-2359-044-45	4.5mm Locking Screw 44mm Lng
00-2359-046-45	4.5mm Locking Screw 46mm Lng
00-2359-048-45	4.5mm Locking Screw 48mm Lng
00-2359-050-45	4.5mm Locking Screw 50mm Lng
00-2359-055-45	4.5mm Locking Screw 55mm Lng
00-2359-060-45	4.5mm Locking Screw 60mm Lng
00-2359-065-45	4.5mm Locking Screw 65mm Lng
00-2359-070-45	4.5mm Locking Screw 70mm Lng



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