



Zimmer®
Periarticular
Proximal Humeral
Locking Plate
Surgical Technique



The Science of the Landscape

Surgical Technique

Developed in conjunction with

Stephen K. Benirschke, M.D.

Professor, Department of
Orthopaedics and Sports Medicine
University of Washington,
Harborview Medical Center
Seattle, Washington

Paul J. Duwelius, M.D.

Adjunct Associate Professor
Orthopaedics
Oregon Health Sciences University
Clinical Attending
St. Vincent Hospital & Medical Center
Portland, Oregon

James A. Goulet, M.D.

Professor and Director
Section of Orthopaedic Trauma
Department of Orthopaedic Surgery
The University of Michigan Hospitals
Ann Arbor, Michigan

David A. Templeman, M.D.

Associate Professor
Orthopaedic Surgery
University of Minnesota
Staff, Hennepin County Medical Center
Minneapolis, Minnesota

Robert A. Winkvist, M.D.

Clinical Professor
Department of Orthopaedics
University of Washington
Orthopaedic Surgeon
Swedish Hospital and Medical Center
Seattle, Washington

Table of Contents

Introduction	2
Locking Plate Technology	2
Proximal Humeral Plate Indications	2
Fracture Classification	3
Plate Features	3
Surgical Technique	4
Required Instrumentation	4
Preoperative Preparation	4
Fracture Reduction	4
Surgical Approach	5
Reduction of Intra-articular Fragments	6
Plate Positioning	6
Screw Trajectory	9
Fracture Fixation	10
Wound Closure	14
Postoperative Treatment	14
Implant Removal	14
Surgical Pearls	14
Instruments and Implants	15
Order Information	18

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 that allow the screw to be locked into the plate. When necessary, interfragmentary compression can be achieved using standard screws in the dual compression slots.

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.

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. The 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.

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.

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 the OTA/AO Comprehensive Classification of Fractures 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
- Low plate profile facilitates fixation without impinging soft tissue
- Dual compression slots will accommodate periarticular screws or conventional stainless screws and allow bi-directional compression

The locking plate design does not require compression between the plate and bone to accommodate loading. Therefore, purchase of 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).

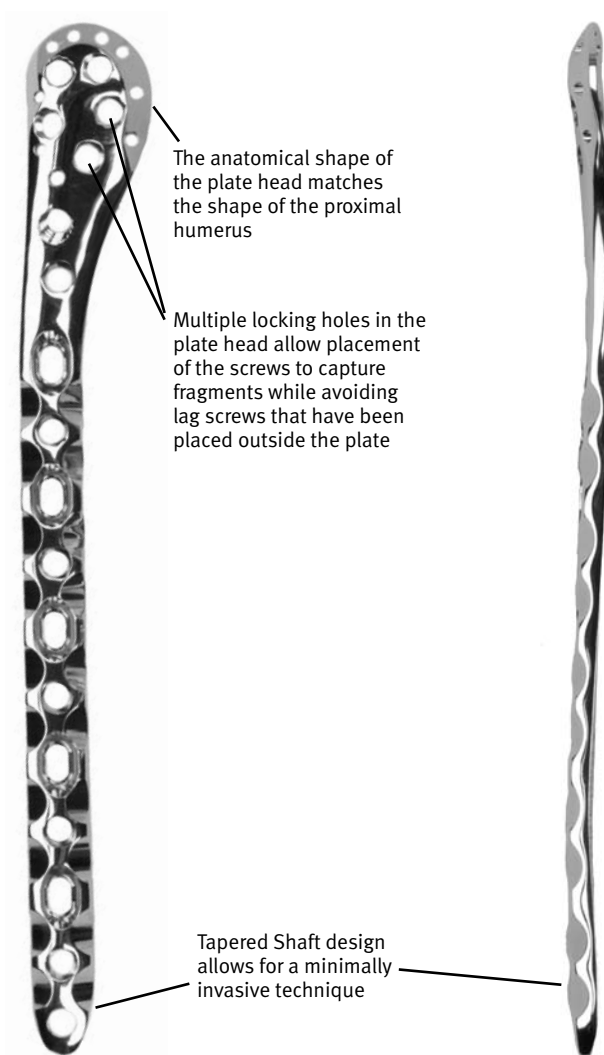


Fig. 1

Surgical Technique

Required Instrumentation

The following sets may be required for application of the 3.5mm Periarticular Locking Proximal Humeral Plate:

- Small Fragment Screw and Instrument Set
- Basic Forceps Set
- 3.5mm/2.7mm Locking Screw and Instrument Set
- 3.5mm Locking Proximal Humeral Plate and Standard Jig Set

NOTE: The 2.7mm Locking Screws should not be used with the 3.5mm Locking Proximal Tibial Plate.

Preoperative Preparation

After assessing the fracture radiographically and preparing a preoperative plan, place the patient in the beach chair position with the injured shoulder resting on a translucent part of the operating table (Fig. 2). Be sure that the fluoroscope can be positioned to visualize the proximal humerus in both the lateral and A/P views.

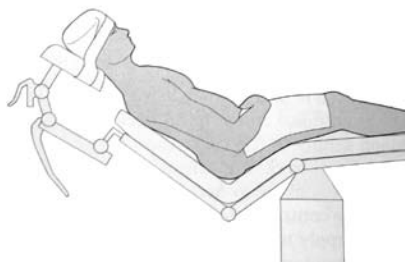


Fig. 2

X-rays and Classification

At least two x-rays of the glenohumeral joint taken at right angles to each other are mandatory to identify the fracture type. X-rays in internal and external rotation can be important if tuberosity fractures are suspected. Traction views can frequently help to clarify complex fracture patterns. If standard x-rays do not allow clear evaluation of the fracture features, articular damage, displacement and soft tissue damage, CT may be helpful. You must be able to determine whether the fracture runs through the anatomical or surgical neck of the humerus.

Recommended X-rays

AP View

The patient must be placed with the posterior aspect of the injured side against the x-ray plate, and the opposite side must be elevated at least 30 degrees.

Lateral Anterior View

The lateral/anterior aspect of the injured shoulder is placed against the x-ray plate. The x-ray beam is then directed posteriorly along the spine of the scapula at 90 degrees to the direction of the AP.

Axillary View

The patient is supine with the x-ray plate placed above the injured shoulder. Abduction of about 30 degrees is needed.

Fracture Reduction

It is imperative that accurate reduction of the fracture be obtained prior to and maintained during application of the proximal humeral plate. Intraoperative x-ray visualization is critical in all planes.

Closed reduction should be tried under image intensification. In acute fractures and fracture dislocations, reduction is often successful.

If closed reduction cannot be achieved, assisted percutaneous reduction by means of a joystick or hook, or open reduction will be necessary in order to obtain good alignment and fracture fixation.

Exposing the Humerus

After radiographic verification of preliminary reduction of the fracture, use the preferred approach and technique to expose the proximal humerus.

Surgical Approach

Deltopectoral Approach

The standard approach for fixation of fractures of the proximal humerus is between the deltoid and the pectoral muscles. Start the skin incision at the coracoid process and continue it in a slightly convex way toward the medial side as far as the insertion of the deltoid muscle on the lateral humeral shaft (Fig. 3). The cephalic vein can usually be identified proximally with its main connections on the lateral side. Incise the fascia medial to the vein and with the arm slightly abducted. The fracture and the humeral head can be palpated after blunt separation of the deltoid muscle from around the bursa, soft tissues and fracture hematoma. After removal of the hematoma, the long biceps tendon can be identified under internal and external rotation and will lead to identification of the greater and lesser tuberosities. Even if the tuberosities are fractured, they will still have some connections to the adjacent tissues and their attached muscles.

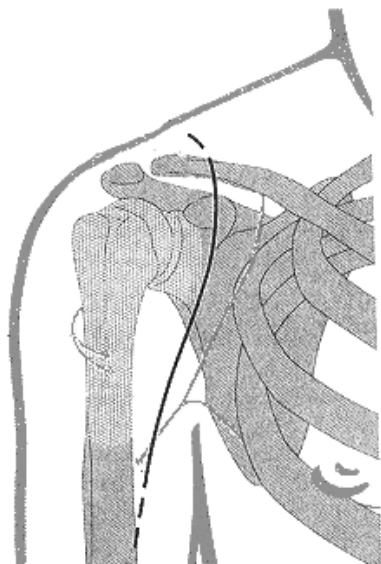


Fig. 3

On the distal shaft, especially in comminuted fractures, the insertions of the deltoid and pectoralis major may have to be partially released, especially for reduction and plate fixation on the lateral aspect of the humerus. The plate should lie dorsal to the long biceps tendon and the lateral branch of the anterior circumflex humeral artery. The position of this artery and the axillary nerve should be noted, and damage should be avoided (Fig. 4).

Retract the deltoid muscle to the lateral side to look for the humeral head (Fig. 5).

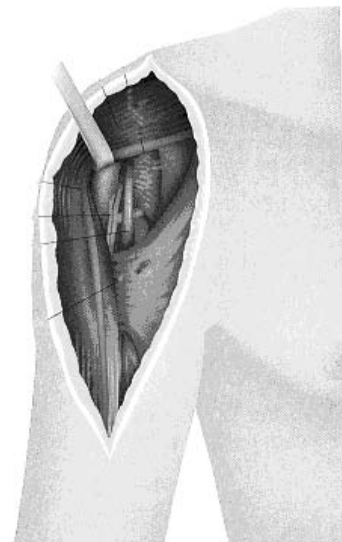
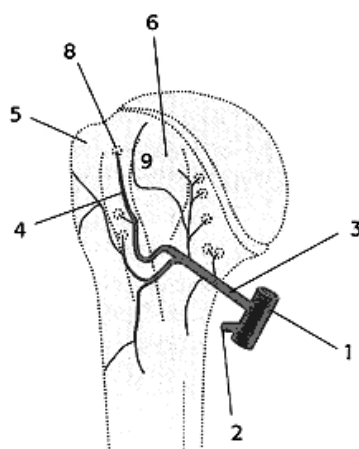
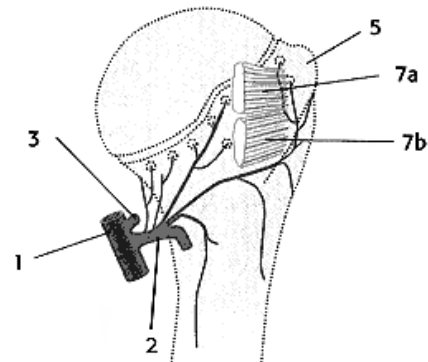


Fig. 5

anterior view



posterior view



1. Axillary artery
2. Posterior circumflex artery
3. Anterior circumflex artery
4. Anterolateral branch of the anterior circumflex artery
5. Greater tuberosity
6. Lesser tuberosity (anterior)
7. Tendon insertions a) infraspinatus, b) teres minor
8. Entry of anterolateral branch of the circumflex artery into the bone
9. Intertubular groove

Fig. 4

Reduction of Intra-articular Fragments

It is imperative that accurate reduction of the fracture be obtained prior to, or through application of the plate, and maintained during application of the proximal humerus plate. 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.

Plate Positioning

Hold the appropriate Metaphyseal Jig on the selected plate and finger tighten or use the 2.5mm Screwdriver to tighten the set screw (Fig. 6). Insert a 3.5mm Standard Jig Sleeve into the center hole of the Jig (Fig. 7) and thread the 1.6mm Standard Cannula into the plate hole (Fig. 8).

Before placing the plate on the bone, thread the appropriate number of Standard Cannulas into the proximal holes in the head of the plate (Fig. 9). It is easier to thread the cannulas into the plate holes before the plate is applied to the bone. The cannulas can be used as handles to position the plate.



Fig. 7



Fig. 6



Fig. 8



Fig. 9

Use this construct to place the initial 1.6mm Drill Tip Guide Wire in the metaphysis. Check plate placement – visually and fluoroscopically if necessary.

Use anatomic landmarks and fluoroscopic images to position the plate. Because the humeral 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 intact or reconstructed proximal humerus. This will determine the alignment of the shaft.

Note: The cannula inserter may be used to tighten the cannula if necessary (Fig. 10).

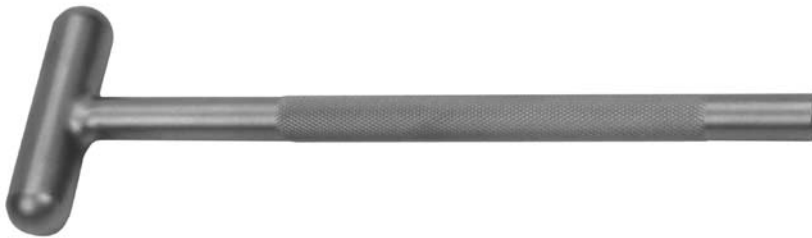


Fig. 10

Hold the plate in the desired position and insert a 1.6mm Drill Tip Guide Wire through one of the Guide Wire Cannulas until the tip engages or reaches the subchondral bone (Fig. 11). Use the fluoroscope to confirm the position of the wire in both the A/P and lateral planes. Adjust the wire location if necessary. If preferred, use a linear bone clamp or bone reduction instrument to secure the plate.

When the first wire is satisfactory, rotate the plate, if necessary. Then insert Drill Tip Guide Wires through the other proximal Guide Wire Cannulas to help prevent rotation of the plate (Fig. 12).

NOTE: If desired, after removal of the metaphyseal jig, additional 1.6mm Drill Tip Guide Wires can be inserted through the proximal K-wire holes to further stabilize the plate (Fig. 13).

Use the fluoroscope for both A/P and lateral views to confirm the position of the plate head, shaft, and guide wires.



Fig. 11



Fig. 12



Fig. 13

Screw Trajectory



Fracture Fixation

Metaphyseal Screw Fixation

If required, lag screw reduction of a fragment must be accomplished before inserting any locking screws. The 3.5mm Cannulated Conical Screws can be used for lag screw fixation.

Slide the 3.5mm Cannulated Screw Depth Gauge over the guide wires to measure for the screw lengths (Fig. 14). The tip of the gauge must contact the end of the guide wire cannula for an accurate measurement. This will position the tip of the screw at the tip of the guide wire. Read the proper screw length from the gauge.

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 using the 2.7mm Cannulated Drill and tapped using the 3.5mm Cannulated Screw Tap.

Remove the Guide Wire Cannulas and use the 2.5mm Hex-head Cannulated Driver to insert a 3.5mm Cannulated Conical or Cannulated Locking Screw over each of the guide wires and into as many proximal holes as necessary (Fig. 15). Sleeves and cannulas may be inserted into the additional proximal plate holes if locked screws are necessary in these holes.



Fig. 14



Fig. 15

A driver 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.

Follow the same procedure for each proximal screw. Be sure that all screws are securely tightened.

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. 16). Before the Blue Stop Ring approaches 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.

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.

Use direct or indirect reduction techniques to reduce the proximal humerus to the shaft. Confirm that the arm is in proper rotation. Temporarily secure the plate shaft to the bone with plate holding forceps, a nonlocking screw or the appropriate plate reduction instrument.

If lag screws will be used through some of the slots in the shaft, insert the first lag screw to reduce the fracture or a standard screw to reduce the plate to the bone and compress the fracture.



Fig. 16

Shaft Fixation

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

Apply the appropriate drill guide ([00-4808-035-01] 3.5mm/2.5mm Double Drill Sleeve, [00-4808-035-02] 3.5mm/2.5mm Insert Drill Sleeve, [00-4808-035-04] 3.5mm Universal Drill Guide, [00-4808-035-05] 3.5mm Compression Drill Guide) to one of the nonlocking shaft slots, and use the 2.5mm QC Drill Bit [00-4806-110-25] to drill through both cortices. Use the Depth Gauge to measure the appropriate screw length. Then insert a self-tapping screw. Check the position of the screw with the fluoroscope. Repeat this procedure for each of the standard screws to be inserted.

To insert solid locking screws, thread the 2.7mm Standard Cannula into the most proximal shaft locking hole of the plate (Fig. 17). Use the 2.7mm Standard Drill through the cannula to drill a pilot hole (Fig. 18). Check the depth and position of the drill with fluoroscopic images. Remove the cannula and use the Depth Gauge to measure the appropriate screw length (Fig. 19). Then insert the locking screw (Fig. 20).

Tapping is 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 tapped using the 3.5mm tap.

Insert locking screws as desired through the remaining locking holes of the shaft in the same manner.



Fig. 17



Fig. 18



Fig. 19



Fig. 20

Strut Screw Fixation

A locking strut screw can be inserted into the plate to buttress the medial cortex. Insert the 1.6mm Standard Cannula into the oblique locking hole (Fig. 21). Then insert a 1.6mm Drill Tip Guide Wire through the Cannula until the tip engages or touches the medial subchondral bone. Use the fluoroscope to confirm the position of the wire in both the A/P and lateral planes.

Slide the 3.5mm Cannulated Locking Screw Depth Gauge over the guide wire to measure for the screw length, making sure that the tip of the gauge contacts the end of the guide wire cannula (Fig. 22). This will position the tip of the screw at the tip of the guide wire. Read the proper screw length from the guide.

Remove the Guide Wire Cannula and use the 2.5mm Hex-head Cannulated Driver to insert a Cannulated Locking Screw over the guide wire (Fig. 23).

Make a final check of the limb alignment and fracture reduction. Then make sure that all locking screws in the head and shaft are securely tightened before closing (Fig. 24).



Fig. 21



Fig. 22



Fig. 23



Fig. 24

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 Standard Hexagonal Screwdrivers [2360-065-25, 2360-065-50] to first unlock all screws from the plate and then remove the screws completely.

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.)

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.

Instrument and Implants



3.5mm Proximal Humeral Plate Jig,
Right 00-2360-093-01, Left 00-2360-093-02



3.5mm Standard Jig Sleeve 00-2360-093-04



1.6mm Standard Cannula 00-2360-021-16



Cannula Inserter 00-2360-088-00



1.6mm Standard Drill Tip Guide Wire 00-2360-033-16



2.7 Standard Drill 00-2360-205-27



3.5mm/2.7mm Locking Screw Depth Gauge
00-2360-040-35



2.7mm Standard Cannula 00-2360-020-27



2.5mm Hex Standard Cannulated Screwdriver
00-2360-066-25



Modular Handle 00-2360-086-00



2.0mm Standard Cannula 00-2360-020-20



2.0mm Standard Drill 00-2360-175-20



2.5mm Hex Standard Screwdriver 00-2360-065-25



1 3.5mm / 2.7mm Locking Plate Reduction Instrument
00-2360-011-01

2 3.5mm / 2.7mm Plate Reduction Sleeve 00-2360-011-02

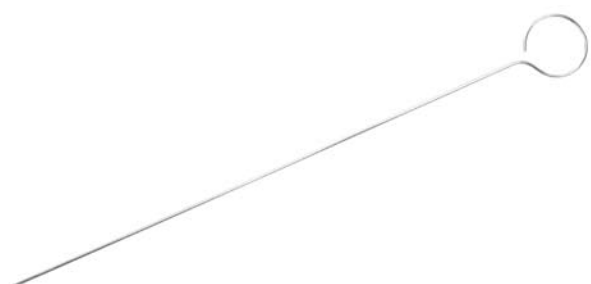
3 Spin Knob 00-2360-012-03



3.5mm Cannulated Locking Screw Standard Depth Gauge
00-2360-041-35



Cleaning Brush 00-1147-076-00



Cleaning Stylet 00-1147-071-00



2.5mm Hex Forward Captive Screwdriver 00-2360-050-25



2.5mm Hex Forward Captive Cannulated Screwdriver
00-2360-051-25



2.7mm Locking Screw Tap 00-2360-053-27



3.5mm Locking Screw Tap 00-2360-053-35



3.5mm Cannulated Locking Screw Tap 00-2360-054-35

Order Information

Description

Part Number

3.5mm/2.7mm Periarticular Locking Instrument Set - Set #00-2360-000-02

Modular Handle 00-2360-086-00

Ratcheting Modular Handle 00-2360-087-00

1.6mm Standard Cannula 00-2360-021-16

1.6mm Standard Drill Tip Guide Wire 00-2360-033-16

3.5mm / 2.7mm Locking Plate Reduction Instrument 00-2360-011-01

3.5mm / 2.7mm Locking Plate Reduction Sleeve 00-2360-011-02

3.5mm Cannulated Locking Screw Depth Gauge 00-2360-041-35

2.7mm Standard Cannulated Drill 00-2360-071-27

Cleaning Stylet 00-1147-071-00

Cleaning Brush 00-1147-076-00

Plate Reduction Spin Knob 00-2360-012-03

2.5mm Hex Forward Captive Screwdriver 00-2360-050-25

2.5mm Hex Cannulated Forward Captive Screwdriver 00-2360-051-25

2.5mm Hex Standard Screwdriver 00-2360-065-25

2.5mm Hex Standard Cannulated Screwdriver 00-2360-066-25

Cannula Inserter 00-2360-088-00

2.7mm Standard Cannula 00-2360-020-27

2.7mm Standard Drill 00-2360-205-27

3.5mm/2.7mm Locking Screw Standard Depth Gauge 00-2360-040-35

2.0mm Standard Cannula 00-2360-020-20

3.5mm Standard Jig Sleeve 00-2360-093-04

2.0mm Standard Drill 00-2360-175-20

2.7mm Locking Screw Tap 00-2360-053-27

3.5mm Locking Screw Tap 00-2360-053-35

3.5mm Cannulated Locking Screw Tap 00-2360-054-35

3.5mm/2.7mm Locking Screw and Instrument Case 00-2358-040-00

3.5mm / 2.7mm Locking Screw Set - Set # 00-2359-000-02

3.5mm Cannulated Locking Screw 30mm Lng 00-2359-030-36

3.5mm Cannulated Locking Screw 35mm Lng 00-2359-035-36

3.5mm Cannulated Locking Screw 40mm Lng 00-2359-040-36

3.5mm Cannulated Locking Screw 45mm Lng 00-2359-045-36

3.5mm Cannulated Locking Screw 50mm Lng 00-2359-050-36

3.5mm Cannulated Locking Screw 55mm Lng 00-2359-055-36

3.5mm Cannulated Locking Screw 60mm Lng 00-2359-060-36

3.5mm Cannulated Locking Screw 65mm Lng 00-2359-065-36

3.5mm Cannulated Locking Screw 70mm Lng 00-2359-070-36

3.5mm Cannulated Locking Screw 75mm Lng 00-2359-075-36

3.5mm Cannulated Locking Screw 80mm Lng 00-2359-080-36

3.5mm Cannulated Locking Screw 85mm Lng 00-2359-085-36

3.5mm Cannulated Locking Screw 90mm Lng 00-2359-090-36

3.5mm Cannulated Conical Screw 30mm Lng 00-2359-030-37

3.5mm Cannulated Conical Screw 35mm Lng 00-2359-035-37

3.5mm Cannulated Conical Screw 40mm Lng 00-2359-040-37

3.5mm Cannulated Conical Screw 45mm Lng 00-2359-045-37

3.5mm Cannulated Conical Screw 50mm Lng 00-2359-050-37

3.5mm Cannulated Conical Screw 55mm Lng 00-2359-055-37

3.5mm Cannulated Conical Screw 60mm Lng 00-2359-060-37

3.5mm Cannulated Conical Screw 65mm Lng 00-2359-065-37

3.5mm Cannulated Conical Screw 70mm Lng 00-2359-070-37

3.5mm Locking Screw 12mm Lng 00-2359-012-35

3.5mm Locking Screw 14mm Lng 00-2359-014-35

3.5mm Locking Screw 16mm Lng 00-2359-016-35

3.5mm Locking Screw 18mm Lng 00-2359-018-35

3.5mm Locking Screw 20mm Lng 00-2359-020-35

3.5mm Locking Screw 22mm Lng 00-2359-022-35

3.5mm Locking Screw 24mm Lng 00-2359-024-35

3.5mm Locking Screw 26mm Lng 00-2359-026-35

3.5mm Locking Screw 28mm Lng 00-2359-028-35

3.5mm Locking Screw 30mm Lng 00-2359-030-35

3.5mm Locking Screw 32mm Lng 00-2359-032-35

3.5mm Locking Screw 34mm Lng 00-2359-034-35

3.5mm Locking Screw 36mm Lng 00-2359-036-35

3.5mm Locking Screw 38mm Lng 00-2359-038-35

3.5mm Locking Screw 40mm Lng 00-2359-040-35

3.5mm Locking Screw 42mm Lng 00-2359-042-35

3.5mm Locking Screw 44mm Lng 00-2359-044-35

3.5mm Locking Screw 46mm Lng 00-2359-046-35

3.5mm Locking Screw 48mm Lng 00-2359-048-35

3.5mm Locking Screw 50mm Lng	00-2359-050-35
3.5mm Locking Screw 52mm Lng	00-2359-052-35
3.5mm Locking Screw 54mm Lng	00-2359-054-35
3.5mm Locking Screw 56mm Lng	00-2359-056-35
3.5mm Locking Screw 58mm Lng	00-2359-058-35
3.5mm Locking Screw 60mm Lng	00-2359-060-35
3.5mm Locking Screw 65mm Lng	00-2359-065-35
3.5mm Locking Screw 70mm Lng	00-2359-070-35
3.5mm Locking Screw 75mm Lng	00-2359-075-35
3.5mm Locking Screw 80mm Lng	00-2359-080-35
3.5mm Locking Screw 85mm Lng	00-2359-085-35
3.5mm Locking Screw 90mm Lng	00-2359-090-35
2.7mm Locking Screw 10mm Lng	00-2359-010-27
2.7mm Locking Screw 12mm Lng	00-2359-012-27
2.7mm Locking Screw 14mm Lng	00-2359-014-27
2.7mm Locking Screw 16mm Lng	00-2359-016-27
2.7mm Locking Screw 18mm Lng	00-2359-018-27
2.7mm Locking Screw 20mm Lng	00-2359-020-27
2.7mm Locking Screw 22mm Lng	00-2359-022-27
2.7mm Locking Screw 24mm Lng	00-2359-024-27
2.7mm Locking Screw 26mm Lng	00-2359-026-27
2.7mm Locking Screw 28mm Lng	00-2359-028-27
2.7mm Locking Screw 30mm Lng	00-2359-030-27
2.7mm Locking Screw 32mm Lng	00-2359-032-27
2.7mm Locking Screw 34mm Lng	00-2359-034-27
2.7mm Locking Screw 36mm Lng	00-2359-036-27
2.7mm Locking Screw 38mm Lng	00-2359-038-27
2.7mm Locking Screw 40mm Lng	00-2359-040-27
2.7mm Locking Screw 42mm Lng	00-2359-042-27
2.7mm Locking Screw 44mm Lng	00-2359-044-27
2.7mm Locking Screw 46mm Lng	00-2359-046-27
2.7mm Locking Screw 48mm Lng	00-2359-048-27
2.7mm Locking Screw 50mm Lng	00-2359-050-27
2.7mm Locking Screw 52mm Lng	00-2359-052-27
2.7mm Locking Screw 54mm Lng	00-2359-054-27
2.7mm Locking Screw 56mm Lng	00-2359-056-27
2.7mm Locking Screw 58mm Lng	00-2359-058-27
2.7mm Locking Screw 60mm Lng	00-2359-060-27

Prox Lat Hum Lock Plt Set - Set # 00-2358-000-05

Proximal Lateral Humeral Locking Plate, 4 Hole 90mm Lng, Left	00-2358-002-04
Proximal Lateral Humeral Locking Plate, 6 Hole 114mm Lng, Left	00-2358-002-06
Proximal Lateral Humeral Locking Plate, 8 Hole 138mm Lng, Left	00-2358-002-08
Proximal Lateral Humeral Locking Plate, 12 Hole 186mm Lng, Left	00-2358-002-12
Proximal Lateral Humeral Locking Plate, 16 Hole 234mm Lng, Left	00-2358-002-16
Proximal Lateral Humeral Locking Plate, 4 Hole 90mm Lng, Right	00-2358-001-04
Proximal Lateral Humeral Locking Plate, 6 Hole 114mm Lng, Right	00-2358-001-06
Proximal Lateral Humeral Locking Plate, 8 Hole 138mm Lng, Right	00-2358-001-08
Proximal Lateral Humeral Locking Plate, 12 Hole 186mm Lng, Right	00-2358-001-12
Proximal Lateral Humeral Locking Plate, 16 Hole 234mm Lng, Right	00-2358-001-16
Prox Lat Hum Plate Std Jig Set - Set # 00-2360-000-14	
Proximal Lateral Humeral Plate Jig, Right	00-2360-092-01
Proximal Lateral Humeral Plate Jig, Left	00-2360-092-02
Case	00-2358-030-05

Contact your Zimmer representative or visit us at www.zimmer.com

